The Impact of Medical Careers Fairs on the Career Aspirations of Medical Students

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Abstract

Careers fairs are a popular way to showcase specialties and encourage medical students to start career planning.

There is very little information on the impact these fairs have. This study sets out to measure this impact and define which factors are important when making career decisions.

The results show that the careers fair had an impact on the career choices of attendees but the reasons for these choices remained the same. Results also showed that the majority of attendees felt the careers fair was beneficial. In light of the GP recruitment crisis it is also interesting to note that responses ranking this specialty highly increased post fair.

Keywords: Careers Fair; Career Selection; Speciality Selection

Introduction

Careers fairs are a popular way for medical specialties to showcase opportunities to trainees and drive recruitment. Fairs are also offered by many medical schools to encourage students to think about career choice. There is very little published data on the effect of these events on their attendees and our literature review found no studies specifically examining the impact of career fairs on career aspirations of medical students. Keele University (Cottrell, 2007) did some informal research into career planning for medical students, as part of this they introduced a careers fair attended by 80 students with 44 responses to their questionnaire. The questionnaire found that the majority of students found the careers fair "helped highlight future career choices" and that the majority would be interested in attending further local careers fairs.

It is clear from Health Education England Specialty recruitment data (HEE NHS, 2017) that training programmes for specialities such as General Practice, Psychiatry have had low fill rates in past years. This data shows fill rates as
low as 65.42% for Psychiatry training in 2017 and approximately 500 GP places were unfilled in England. The Foundation Programme Career Destination Report 2017 UK Summary showed that in the last 6 years there has been a 30% decline in Foundation Year 2 doctors progressing directly into speciality training from 2011 to 2017 from 71.3% to 42.6% (UK Foundation Programme, 2017). This shows a significant medical workforce shortage within the NHS. The exact reasons for this shortage are multifactorial and numerous, as are the possible solutions, however raising awareness of specialties through careers fairs may be a way of encouraging applications to shortage specialties. It appears to be unclear when trainees decide which speciality they will pursue as a career and as a result it is worth looking at the effect of careers fairs on the career aspirations of medical students to ascertain their utility in solving the future medical workforce problem.

The aim of this study is to determine if medial careers fairs have any impact on the career choices of medial students. The study also aims to quantify this impact and broadly determine what factors influence career choices of medical students.

The research questions to be answered are:

- What are the medical student pre-fair career preferences?
- Does this change after the fair?
- Was the careers fair beneficial in selection of future careers?
- How does the careers fair impact the choice of future careers?
- What factors are used to determine future careers paths?

**Methods**

This research was supported by the University of Leicester Medical School and approved by the University of Leicester's Ethics Committee (approval code - 8377-jvw4-medicaleducation)

The setting for this study was the University of Leicester's 2015 medical careers fair. This fair is for fourth year medical students in their first year of clinical placement. The day of activities comprises a series of lectures, given by senior doctors in their specialties, and an interactive fair with various exhibits running alongside. The students are encouraged to attend all lectures and to view the stalls during breaks. Most major specialties were represented, with many smaller specialities also providing talks to students.

All fourth year students were provided with a link to the pre-fair questionnaire (Appendix B) a month before the event and regular reminders were sent in the run up to the fair. Participation was entirely voluntary and all data was anonymised.

Participants were asked to rank their top 3 specialty choices. Options were given to add a specialty/career if one of their choices was not already represented.

After the fair students were asked to fill in the post-fair questionnaire (Appendix C). Additional questions were added onto the post fair questionnaire in order to elucidate the impact of the careers fair on the choice of speciality

**Results/Analysis**

It was difficult to assess the exact number of attendees on the day. It was aimed at fourth years but we know that other year groups attended and participated. The number of attendees is estimated to be at 180 students,made up of
third to fifth year medical students.

There were 49 responses to our pre-fair online questionnaire. This figure could have been improved if participants had been given a hard copy on the day to complete before the talks began. Of the 49 respondents the majority (74%) were fourth years and 20% were completing an intercalated BSc (Figure 1), which they would have started halfway through their fourth year.

Figure 1: Demographic information of pre-fair questionnaire respondents

Interestingly, of the 27 responses to the post-fair questionnaire all were fourth years. This is an interesting outcome as the questionnaire was circulated in the same way as the pre-fair questionnaire.

Figure 2: Demographic information of post-fair questionnaire respondents

After demographic information, the most popular speciality was analysed, this refers to the speciality most ranked as a "first choice" specialty. The pre-fair questionnaire results (Figure 3) shows that 27.5% of respondents ranked GP as their first choice followed by 12.5% choosing paediatrics and 10% choosing geriatrics. This is a particularly interesting result as at this point students have had differing levels of exposure to GP, Psychiatry, Medicine
(including Cardiology and Radiology), Surgery and Orthopaedics. They have yet to take part in final year placements which are: Geriatrics, Neurology, ENT, Ophthalmology, Obstetrics and Gynaecology, Paediatrics, Cancer Care and A&E.

**Figure 3: First Preference Specialities Pre-fair**

![First Preference Specialities Pre-fair](image)

When compared with the results from the post-fair questionnaire (Figure 4) changes can be noted. The proportion of respondents ranking GP as their first preference increased to 40% and the 2nd and 3rd choice specialties were replaced by Anaesthetics (10%) and Dermatology (10%). This may indicate that the careers fair had a considerable impact on the career choices of medical students. It appears that it may have confirmed GP as a career for some and highlighted it for others.

**Figure 4: First Preference Specialities Post-fair**

![First Preference Specialities Post-fair](image)

Next the most selected specialty was considered, this refers to the specialty most selected, be it as 1st, 2nd or 3rd choice. The three most selected specialities before the fair were GP, A&E and Paediatrics, with 45% of respondents, 27.5% and 27.5% of respondents respectively choosing these specialities. (Figure 5) This is compared with 60% of respondents choosing GP, 40% choosing Paediatrics and 40% choosing A&E in the post fair.
questionnaire (Figure 6). The most selected specialties did not change, however the degree of their popularity did change.

**Figure 5: Three Most Popular Specialities Pre-fair**

![Bar chart showing three most popular specialties pre-fair](image)

**Figure 6: Three Most Popular Specialties Post-Fair**

![Bar chart showing three most popular specialties post-fair](image)

It is, therefore, pertinent to consider the reasons for choosing a particular speciality and this data was collected both before and after the fair. The data from both before and after the fair (Figure 7) (Figure 8) represents that the top three reasons for choosing a speciality are patient contact, interest and length of training.

The other options given to participants were: financial reasons, prestige, research potential and competition. Participants were also able input their own reasons for selecting specialties and gave the following; variety, work-life balance, practical/hands on experience, enjoyment, character of people currently in specialty, setting, holistic approach. Interestingly, interest in the chosen field was an option suggested by participants and was very popular, with a quarter of participants in-putting it in the pre-fair questionnaire.

**Figure 7: Reasons for Choosing Speciality Pre-fair**

![Bar chart showing reasons for choosing speciality pre-fair](image)
The final questions in this study were designed to broadly ascertain the perceived usefulness of a careers fair to medical students. From analysis of the data (Figure 9) (Figure 10) it appears that 62% of respondents agreed that the careers fair helped to decide on their future career. In addition, 52% agreed that the careers fair was helpful in general. This implies that the careers fair overall had a positive impact on the career aspirations of medical students.

**Figure 9: To What Extent Did The Careers Fair Help Decide Your Future Career**
Figure 10: Was the careers fair helpful?

The data from this study demonstrates that careers fairs are useful to medical students, and are worth providing. A specific participant comment indicated that the careers fair may be more useful in final year as they will have had more exposure to specialties and be better placed to make decisions and utilise the careers fair. However, the qualitative data also suggested that the careers fair lead to broadening of views and identification of career pathways for medical students. This highlights the importance of providing exposure to training schemes and pathways to better inform students of the availability of diverse specialties available.

Discussion

The exact number of students that attended the careers fair is unknown and this small level of uncertainty is certainly a weakness which could be addressed in future studies, in order to more easily ascertain if the sample is representative. Despite repeated reminders and invitations to complete the questionnaire the participation rate could not be increased. This may have been improved by providing hard-copies of the questionnaire on the day. It may also be interesting in future studies to see if career aspirations and important influencing factors change throughout
medical school.

This study highlighted that the proportion of respondents ranking GP increased post fair. The precise reasons for the change are outside the remit of this study. Possible postulated explanations include the variety in specialities presentation style, exposure to previously unconsidered specialities or selection bias of respondents.

The post fair questionnaire revealed a change in the degree of popularity of first preference specialities. This may be due to a smaller population of respondents post fair, however may be reflective of the presentations delivered by the speaker. In addition this change may reflect exposure to specialities that students had considered as options but the information provided on the day may have dissuaded applications to those fields.

Data regarding reasons for choosing specific specialties suggests that the underlying factors for choosing a speciality are more allied to clinical factors than training factors. This is important to note as this could have an impact on workforce planning in the future.

**Conclusion**

This study was aimed at elucidating the impact of careers fairs on the careers aspirations of medical students. It appears that the careers fair has had an effect on the perception of medical specialities by medical students. This study demonstrates the underlying reasons for choosing one speciality over another and these reasons tend to be clinically based, such as patient contact.

The results show that the careers fair has had an overall positive impact on medical students and has helped them to decide upon their future careers. This is very encouraging as it clearly demonstrates the usefulness of medical careers fairs to students.

In addition, the qualitative results demonstrate a specific limitation which is important to take into account. Respondents wanted exposure to a wider array of specialties and more information regarding training pathways which will be taken into account in any future studies.

It is clear that further studies are required with a broader demographic of medical students to comprehensively elucidate the impact of careers fairs. However, this study has certainly identified areas which need further research.

**Take Home Messages**

- Careers fairs have an impact on career aspirations of medical students
- Reasons for career decisions appear to be unaffected by careers fairs
- Careers fairs are beneficial to careers choices of attendees
- Careers fairs may be a useful tool in addressing recruitment difficulties to some specialities.

**Notes On Contributors**

Hassaan Waqar is a General Practice trainee in Birmingham with an interest in Medical Education and General Practice. He graduated from the University of Leicester Medical School in 2015.

Philippa James is a Foundation doctor in the East Midlands with an interest in Medical Education and Sexual Health and Gynaecology. She studied at the University of Leicester and was a student there at the time of the research.
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Appendices

Appendix A

Participation Consent Form

This questionnaire is expected to take no more than 5 minutes.

By filling in the questionnaire you agree to take part in the study.

All data will be anonymised.

We ask you to kindly fill in a second survey after you have attended the careers fair, this will be sent to you.

If you have any questions about the study please email ---@student.le.ac.uk

Appendix B

Pre-fair Questionnaire

1. Thank you for taking part in this questionnaire. Please read the information below before proceeding to the
questionnaire.

This questionnaire is expected to take no more than 5 minutes.
By filling in this questionnaire you agree to take part in this study.
All data will be anonymised and can be withdrawn by contacting ____.
We will ask you to kindly fill in a second survey after you have attended the 2016 careers fair, this will be emailed to you.
If you have any questions about the study please email ____.

- I have read and agreed to above information

2. Please select your current year from the list below. If you have taken a year out or completed a BSc please select the year you are CURRENTLY in.

- Phase 1 (Year 1-3)
- Junior Rotation (Year 4)
- Intercalated BSc year
- Senior Rotation (Year 5)

3. Please select your top three choices for future career from the list below

|                  | 1st Choice | 2nd Choice | 3rd Choice |
|------------------|------------|------------|------------|
| A&E              |            |            |            |
| Anaesthetics    |            |            |            |
| Cardiology      |            |            |            |
| Endocrinology   |            |            |            |
| ENT             |            |            |            |
| GP              |            |            |            |
| General Surgery |            |            |            |
| General Medicine|            |            |            |
| Haematology     |            |            |            |
| Hepatology      |            |            |            |
| Infectious diseases |      |            |            |
| Oncology        |            |            |            |
| Obstetrics & Gynaecology |    |            |            |
| Ophthalmology   |            |            |            |
| Orthopaedics    |            |            |            |
| Paediatrics     |            |            |            |
| Psychiatry      |            |            |            |
| Public Health   |            |            |            |
| Radiology       |            |            |            |
| Other 1         |            |            |            |
| Other 2         |            |            |            |
| Other 3         |            |            |            |

4. If you selected "Other" for the previous question please inform us what you meant below:
5. Please rank the following in order of factors which are important to you in choosing your future career.

Please rank at least 3:
Financial reasons
Length of training
Prestige
Research potential
Patient contact
Competition
Other 1
Other 2
Other 3

6. If you selected "Other" for the previous question please inform us what you meant below:

Other 1
Other 2
Other 3

7. Thank you very much for taking part in this survey. Please fill in the post-fair questionnaire, this will be sent to you.

Please provide us with any feedback about this questionnaire, or ways you think it can be improved in the future.

Appendix C

Post-fair Questionnaire

1. Thank you for taking part in this questionnaire. Please read the information below before proceeding to the questionnaire.

This questionnaire is expected to take no more than 5 minutes.
By filling in this questionnaire you agree to take part in this study.
All data will be anonymised and can be withdrawn by contacting ____.
If you have any questions about the study please email ____.

- I have read and agreed to above information
2. Please select your current year from the list below. If you have taken a year out or completed a BSc please select the year you are CURRENTLY in.

- Phase 1 (Year 1-3)
- Junior Rotation (Year 4)
- Intercalated BSc year
- Senior Rotation (Year 5)

3. Please select your top three choices for future career from the list below

| 1st Choice          | 2nd Choice | 3rd Choice |
|---------------------|------------|------------|
| A&E                 |            |            |
| Anaesthetics        |            |            |
| Cardiology          |            |            |
| Endocrinology       |            |            |
| ENT                 |            |            |
| GP                  |            |            |
| General Surgery     |            |            |
| General Medicine    |            |            |
| Haematology         |            |            |
| Hepatology          |            |            |
| Infectious diseases |            |            |
| Oncology            |            |            |
| Obstetrics & Gynaecology |      |            |
| Ophthalmology       |            |            |
| Orthopaedics        |            |            |
| Paediatrics         |            |            |
| Psychiatry          |            |            |
| Public Health       |            |            |
| Radiology           |            |            |
| Other 1             |            |            |
| Other 2             |            |            |
| Other 3             |            |            |

4. If you selected "Other" for the previous question please inform us what you meant below:

Other 1  …………………………
Other 2  …………………………
Other 3  …………………………

5. Please rank the following in order of factors which are important to you in choosing your future career.

Please rank at least 3:

- Financial reasons
- Length of training
- Prestige
Research potential
Patient contact
Competition
Other 1
Other 2
Other 3

6. If you selected "Other" for the previous question please inform us what you meant below:

Other 1  ………………………
Other 2  ………………………
Other 3  ………………………

7. To what extent do you agree with following?

The careers fair has helped to change/make-up my mind about my future career;

Strongly agree
Agree
Neutral
Disagree
Strongly disagree

8. To what extent do you agree with following?

The careers fair has been helpful to me;

Strongly agree
Agree
Neutral
Disagree
Strongly disagree

9. What impact has the careers fair had on decisions surrounding your future career?

........................................................................................................................................................

10. Thank you very much for taking part in this survey. Please fill in the post-fair questionnaire, this will be sent to you.

Please provide us with any feedback about this questionnaire, or ways you think it can be improved in the future.

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Declarations

The author has declared that there are no conflicts of interest.

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Ethics Statement

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