

Developing Personal Professionalism and Career Awareness Early in the Medical Curriculum through Enquiry-Based Learning

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Abstract

This work describes the development and introduction of a pilot Career Awareness teaching session into the year-two medical student timetable. A total of 275 students took part in the pilot and their responses to questionnaires have informed the recommendations that we make. The project was designed to trial the use of enquiry-based techniques to introduce second-year undergraduate students to career management skills. Currently, there is little guidance available to inform the structure of careers support provided by medical schools. As very few medical students make use of the mainstream careers support activities provided by the University Careers Service, the project aims to make career management relevant to the medical student. With the advent of a medical training system requiring earlier career decisions, this project also aims to address the question of how early we should begin introducing our undergraduates to career discussions.

Drawing on educational, clinical and professional careers guidance experience, the project team worked together to design a two-hour Career Awareness teaching session, restrained by timetable space, to be delivered to up to 150 students at once. The session was delivered in semester three, the first semester of the second year of study. The session facilitated the construction of a job study interview structure by the students working in small groups. This was followed by a two-hour panel discussion during which students were introduced to medical professionals to whom they could pitch

questions around their careers. The students were surveyed prior to the session to determine the current level of career awareness amongst second-year students, using a paper and pencil survey. Observations from this survey, along with the initial reactions of the students to the teaching, have informed our evaluation and have proven invaluable in the development of the session for use with the next cohort in 2008/9. This case study also proposes a number of recommendations for the development of careers support for undergraduate medical students.

Background

Since the implementation of Modernising Medical Careers in 2005 there has been a growing interest in how the careers of doctors are supported, and a series of high profile reports have been published on the topic. Previously, the British Medical Association (2003) gave their approval to work in this area, believing career choice to be a 'personal decision' for which 'individuals should be equipped with the tools to manage their own careers'. Two years later, *Career Management: An approach for medical schools, deaneries, royal colleges and trusts*, published by Modernising Medical Careers (2005), highlighted the need for a proactive educational approach to career development early on to ensure that doctors are better trained to deliver better patient care. Recently, Professor Sir John Tooke (2008), in his independent enquiry into Modernising Medical Careers, made a recommendation that medical schools should play a greater role in careers advice, a recommendation which has since been accepted by the Secretary of State for Health.

With two-thirds of second-year medical students in our survey currently reporting that they are unaware of the availability of any careers support during their medical course, this project aims to clarify whether it is appropriate to introduce career support in phase one and if so, in what format.

Rationale

The main purpose of the Career Awareness teaching session is to promote individual career thinking. Career choice is presented as an open-ended decision which can be influenced by a variety of factors. The teaching aims to encourage students to identify

some of the issues surrounding career choice and through discussion explore the relevant information that they would need to address these. By exploring each others' perspectives and applying those to what they have learned about the medical labour market, the process is also useful to help students appreciate the range of roles that doctors can play.

Our approach utilised Enquiry-Based Learning methods to stimulate discussion around the types of things an individual would need to know in order to make a sustainable career choice. Key learning outcomes included to be able to:

1. Reflect on personal attributes and make plans to explore these through self-directed learning opportunities.
2. Develop a framework to explore a range of healthcare roles and relate these to personal attributes.
3. Begin to demonstrate a rationale for career preferences and show evidence of how career plans have been made.

Approach

1. Career Awareness Survey

The design of the Career Awareness Survey prior to the delivery of the teaching was crucial to enable us to capture the responses of all of those who attended the session. The survey used qualitative questions in order to allow the students as much freedom in their responses as possible, as we were aware of the danger of our own preconceived ideas of undergraduate career awareness influencing survey design. The survey aimed to sort responses from those students who had a firm idea of the medical career they wished to follow before they entered medical school and those who had less clear cut ideas. We also asked students to list the things that had influenced their thoughts on career choice at this stage, as well as the ideas they had for gaining more information about career options and checking their suitability for different career paths. In total 275 responses were received.

2. Medical Careers in Context

In order to capture student interest, the Career Awareness session began by providing an overview of the medical career structure. This included factual information presented in the form of a quiz on the range of options available, level of regional competition and the criteria used by selectors in short listing for jobs. Presenting this information upfront demonstrated the process of career choice in context, as a challenging task of fitting oneself into a set of pre-existing structures.

3. Introducing Self Awareness

Students worked in pairs using a prompt sheet to help each other unpick the attributes that they currently use in academic and extra-curricular tasks.

4. Designing a Career Research Tool – The Job Study Interview

Using a given acronym to help them consider the range of issues involved in making career decisions, students worked in small groups of around eight, breaking off into sections in the lecture theatre to discuss two of the following areas:

- S – Surroundings
- P – Prospects
- E – Entry & training
- E – Effects on your lifestyle
- D – Description of tasks
- C – Conditions
- O – Organisation
- P – People

Based on earlier learning on medical careers in context and introducing self awareness, facilitators encouraged groups to recognise the range of motivators having impact on career choice, both extrinsic and intrinsic. Each group nominated a spokesperson to feedback to the larger lecture group the key points from their discussion, both the

issues raised and the possible importance of these issues. These issues were then reframed as questions that a student could ask of a professional during a job study interview in order to help them evaluate their own career options. Students were provided with a printed outline in which to write a personal action plan to help them identify information, resources and tasks needed to construct future career learning opportunities in light of the issues raised.

The first teaching session was followed three days later by a two-hour panel session to which a range of medical professionals at various stages in their careers were invited. The panel was chaired by a third-year medical student who encouraged panellists to give a brief overview of their career before taking questions from the audience. Students were encouraged to draw on the job study interview that they had constructed during the previous session in their questioning. The panel received a range of good quality questions which were evidently of great personal importance to the students asking them.

5. Post-Lecture Evaluation

Using an Electronic Rapid Response System from Turning Point, jointly provided by Medical and Human Sciences and the Faculty of Life Sciences, eight evaluative questions were asked of the attendees at the Career Awareness session. Students used individual electronic key pads to respond to each of the questions with the results displayed graphically on the screen at the front of the lecture. The results of this evaluation are discussed later along with recommendations for the future use of the electronic system.

6. Trial and Evaluate the Use of Sci 59

Sci 59 is an online Specialty Choice Inventory designed by the Open University which asks students a series of questions before suggesting the types of career areas they may like to explore further. The programme generates a profile which breaks down the various facets of the work involved and gives the student a rating in each of these areas. We are currently in the process of trialling the programme with 100 users to determine whether it is of potential use to undergraduate students. We are particularly interested to discover the level of support that would be required for students to make the most

use out of the generated profile and how this could be used to add to Enquiry-Based Learning activities.

Preliminary Findings

The findings discussed here are derived from the responses of 275 students to our Career Awareness Survey completed prior to the teaching input.

Students cited a total of 50 different career areas when asked about their current career preferences, indicating a diverse range of interests and a broad awareness of career options.

Did you have any preferences/ideas for the career you would like to follow when you first made your application to medical school?

- 56% of students had a preference for the career they would like to follow prior to coming to medical school.
- 60% of those students with a preference for the career they would like to follow prior to coming to medical school had since changed their mind.
- 73% of those students who did not have a preference prior to coming to medical school reported that they had started to develop career ideas since studying medicine.
- Only 27% of students felt they had not yet started to develop career ideas.

These figures indicate that a large proportion of medical students are engaging in dynamic career thinking by the beginning of the second year of medical study. In order to discover what types of things were promoting this thinking, we asked students to report on the factors that had led to their current career interest. We were particularly keen to discover whether these factors differed between the groups with clear or developing career ideas and those with no clear preference.

Work experience and finding the area interesting were factors most frequently reported by those whose career preferences prior to medical school remained the same. This

group was also more likely than other groups to list aspects of the job such as working with young people, challenge and practical tasks as key influences.

Those whose prior career preferences had changed or who had started to develop ideas since coming to medical school also reported work experience and interest in the area as important factors. These groups added the study of relevant material on the medical course and, specifically, anatomy lectures as factors influencing a change of career preference or a development of ideas.

For those who had yet to develop career ideas, little mention was made of work experience as an influencing factor. Instead, this group were more likely to list financial security, work-life balance and hours of work as factors currently influencing their interests.

Very few students listed factors related to an awareness of their own attributes or skills. The small number who did came only from the groups who had career ideas/preferences prior to coming to medical school.

List three things you could do now, or in the future, to find out more about a particular career path.

Research was consistently listed as the most common task to find out more about a career, along with talking to professionals. By far the most predominantly used source for research is the internet, ranging from specific websites such as NHS Careers and the BMA, to simple Google searches on medical careers.

Seeking careers advice was featured in the top four, below research, talking to professionals and gaining work experience.

Only two students suggested looking at the entry requirements of the job.

List three things you could do now, or in the future, to find out if you were suited to a particular career.

Those students with unchanged career ideas since prior to medical school most frequently listed gaining work experience and talking to specialists in the field, as

methods to discover suitability for a career. This group were more likely than other groups to suggest that they would reflect on their suitability.

Those whose ideas have changed or started to develop since coming to medical school were more likely to list their clinical years as the time to discover their suitability for a particular career area.

For all groups, gaining work experience and talking to specialists in the field remained top of the list of suggested activities.

Overall, very few students suggested reflective activities.

Evaluation and Conclusions

Predominant themes emerging from the analysis of the Career Awareness Survey include:

- There is a very limited awareness of available careers support;
- There are vast individual differences between students' level of career thinking;
- Career preferences are being formed and influenced from early in the medical course;
- Students are relying heavily on work experience opportunities and interactions with medical professionals to find out more about career areas and personal suitability;
- The internet is often a first port of call for careers information;
- Very few students seem to be engaging in reflective tasks for personal development;
- Very few students are considering their skills and attributes when thinking about their suitability for a career area, instead focusing on enjoyment and interest.

When asked to evaluate the Career Awareness session, the following student responses were recorded:

- 57% of students predicted the session would *not* be useful, prior to attending;
- 84% of students actually found the session to be useful.

This is useful feedback indicating that despite a poor view of the usefulness of careers support prior to the session, a large proportion of those who attended changed their views. This suggests a high level of receptiveness to career awareness teaching in year two.

70% of students reported that they were planning to undertake specific activities to develop their career plans in the next 12 months.

This supports our earlier observation that a large proportion of medical students are engaging in dynamic career thinking by the beginning of the second year of medical study.

At what stage in your training do you think you would gain most benefit from this teaching?

- 6% Pre-University
- 5% Year 1
- 22% Year 2
- 38% Year 3
- 18% Year 4
- 6% Year 5

Here there is a definite split opinion. We can, however, conclude that the majority would feel they would benefit most from teaching on careers awareness prior to entering the fourth year of medical study.

As a result of this teaching I have a greater understanding of my own personal characteristics

- 38% Unsure

- 56% Disagree
- 6% Agree

This indicates that a single two-hour teaching session on career awareness is insufficient to provide a greater understanding of personal characteristics, perhaps a consequence of the large lecture theatre setting. This is something that would need to be considered when developing a model of careers support for medical students.

How comfortable would you feel asking doctors the questions covered in the job study?

- 21% Very comfortable
- 52% Comfortable
- 23% Slightly uncomfortable
- 4% Very uncomfortable

Survey Design

Our qualitative approach proved difficult to analyse and in hindsight left some questions unanswered. Having coded the student responses we now have a better understanding of the possible range and will be utilising this in the design of a more quantitative survey for use with the next cohort.

The 2007-8 survey did not include a demographics field and, therefore, we cannot tell whether some of the differences observed are due to experiential differences. The 2008-9 survey will need to gather demographic data.

Electronic Response System

Students engaged well with this method of gathering feedback. It has the benefit of providing instant visual impact and allows the sharing of opinions in an interactive yet anonymous way. Having seen it in action, we now feel it has a number of potential uses

throughout the entire enquiry-based session which are discussed in the further development section.

Lecture Format

Breaking the lecture theatre into small groups worked well with the support of three facilitators. Students, however, reported that they *did not* feel that session enabled them to gain a better understanding of their own personal characteristics. We are, therefore, mindful that future sessions need appropriate follow-up resources which enable this learning outcome to be achieved on an individual basis in the student's own time. Work to provide materials to support this type of Enquiry-Based Learning is therefore underway.

Enquiry-Based Learning and Career Awareness

Enquiry-Based Learning was selected for this pilot as an innovative approach to helping students to begin to identify their place in the medical career structure. The teaching sought to expose students to questions such as: how do doctors choose their careers in an ever evolving and uncertain health system; what influences exist; and how can you begin to plan for the labour market as it will be in the future. The message we wanted to convey was that career planning is not about finding the right label but about creating learning experiences which will develop your attributes. Using an enquiry-based approach we introduced students to different perspectives and attitudinal responses and sought to empower them to become their own career researchers.

Further Development

Extending available data

We are aware that our data shows a snapshot of one cohort of students at one point in time. We are keen to gather comparative data to enrich this picture. Our first intention is to gather data on career awareness from other medical schools so that we can compare how students on a graduate-entry programme and a non-problem-based learning course differ. Secondly, we intend to ask similar questions of a group of year-

five Manchester students in order to determine whether the influences and strategies reported by year-five students are further developed and whether they have an opinion on the most appropriate time to begin providing careers support.

Developing Career Awareness Teaching Session

A major area of work is to identify methods to enable students to engage with their own personal characteristics in a large-group setting. Fictional case studies are being developed for use in the small breakout groups to encourage students to voice their own responses to the career dilemmas presented in the case studies.

The Electronic Response System has potential uses which we are currently exploring. We intend to use it to provide a visual picture of the shifts in attitude of the whole group throughout the session. This has the added benefit of enabling individuals to see the different perspectives of their peers and to stimulate discussion. It could also be used at the end of the session to share action plans by giving a range of possible answers to the question, 'what is the most important thing that you intend to do next to further your career exploration?' Students will be able to see what the most popular methods are amongst their peers, which again has discursive potential.

Supporting Academic Staff

It is evident from the results of the Career Awareness Survey that interactions with medical professionals featured regularly on the lists of ways a student would find out more about a career area. With this in mind, tutors and other academic staff should be offered appropriate support to help them best deal with these enquiries. So far, the project team has delivered a workshop at the annual Medical Education Conference in 2008, introducing academic staff to careers advice techniques. A further development of this would be to use the same case-studies as designed for the student session with academics to enable them to work on the career dilemmas in groups from a tutor's perspective.

Key Recommendations

- Exploit early career thinking of undergraduates and provide appropriate support;
- Investigate the Medical School's role as a potential influencer of career choice;
- Provide students with the tools to critically appraise the influences around them;
- Use the lecture-based format to introduce career theory and concepts of decision making;
- Provide follow-up opportunities for individual exploration of self and career options;
- Develop a rolling programme of career support from year two to year five;
- Develop web pages with downloadable exercises for recording individual thought processes;
- Develop a blog to provide a forum for discussion and better signposting of online resources;
- Raise the profile of the University Careers Service and the range of activities it provides to support career exploration and self development;
- Provide tutors and educational supervisors with access to support to assist them in dealing with career queries from students.

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