INFORMING CHOICES: THE NEED FOR CAREER ADVICE IN MEDICAL TRAINING

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NICEC
National Institute for Careers Education and Counselling

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How should the career support provided to doctors and medical students during their medical training be improved? Experience elsewhere suggests that unless such support is developed to meet the specific requirements of doctors and medical students, it is unlikely to achieve all its objectives. This research study set out to find out exactly what these requirements were and how best they might be catered for.

Presenting the results of a survey of the medical career advice and guidance needs of a nationally representative sample of doctors in training and final year medical students, the research demonstrates that doctors have real problems finding their way through their career and training choices. Existing career guidance provision, reviewed as part of the research, is often fragmented and poorly resourced. The report argues that a proactive and educational approach to career advice and guidance provision is needed. This will require a fundamental change of mindset so that medical career advice and guidance is positioned as a part of medical training.

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Glossary

BMA	British Medical Association
BMJ	British Medical Journal
CCST	Certificate of Completion of Specialist Training
DoH	Department of Health
EEA	European Economic Area
GMC	General Medical Council
GP	General practitioner
GP Reg	GP registrar
GP VTS	GP Vocational Training Scheme
LAT	Locum Appointment for Training
MWF	Medical Women's Federation
NICEC	National Institute for Careers Education and Counselling
NTN	National training number
PMDE	Postgraduate Medical and Dental Education
PRHO	Pre-registration house officer
RSM	Royal Society of Medicine
SHO	Senior house officer
SpR	Specialist registrar
SWAG	Specialist Workforce Advisory Group
WIST	Women in Surgical Training

Executive summary

This report highlights the main findings from a research study that was conducted for the Department of Health by the National Institute for Careers Education and Counselling (NICEC) between February, 2000 and December, 2001.

The study sought to integrate information about three inter-linked aspects of career choice for doctors in training:

1. The significance of particular career decisions in terms of their potential consequences
2. The factors important to doctors in training in making career decisions and the way these decisions are made
3. Their access to information and guidance to support their career decisions.

The focus of the research was to understand the career choice process from the perspective of doctors in training so that career support is developed to meet their specific needs. As part of this process a national questionnaire survey of doctors in training and final year medical students was conducted. Existing career provision was also reviewed in order to suggest how it might be improved.

The purpose of the executive summary is to highlight key findings and to outline the research conclusions. The introductory chapter of the report provides more detailed information on the background and context of the project, and outlines the structure of the report.

Profile of survey respondents

The survey questionnaire was sent to a sample of BMA members selected by year of first registration. Doctors in training from three year groups were selected, as well as samples of PRHOs and final year medical students. The sample included both UK and overseas doctors working in England. The survey achieved a response rate of 42% with 1,740 completed questionnaires returned. Overall, the 1,740 respondents represent approximately 5% of the total number of doctors in training, PRHOs and final year medical students in England.

Key characteristics of respondents to the survey were:

- Women were the majority in all year groups ranging from 62% of final year and PRHOs to 53% of the 1997/98 year group.

- There were relatively few overseas doctors among the final year students and PRHOs but they made up about a quarter of the three post-registration year groups.
- 23% of respondents described themselves as a member of an ethnic minority.
- 12% of SHO respondents had been in the SHO grade for more than five years and a further 44% had been between three and five years in the SHO grade.
- 13% of respondents were in locum positions and 8% of SHOs and 5% of SpRs reported that they were not in training posts.
- 15% of respondents who reported they were in the SpR grade were in locum or temporary positions.

What motivates doctors?

Knowing what motivates doctors and medical students is important for understanding the forces that shape their career choices. It also influences the areas in which they decide to work. The survey found that the same four features of work were most important to all five groups of respondents.

- Balance between work and home life (71% rated extremely important)
- Job satisfaction (66% rated extremely important)
- Working in a friendly atmosphere (62% rated extremely important)
- Doing a worthwhile job (57% rated extremely important).

Opportunities for promotion and good financial rewards were the two features that fewest respondents rated as extremely important to them. Two-thirds of female respondents rated opportunities for flexible working as very or extremely important to them compared to a third of male respondents. More detailed analysis revealed significant differences in terms of what motivates male and female doctors. These are likely to lead to differing patterns of career choice.

Doctors in training reported little experience of many of the features of work that were most important to them. A major concern was the lack of control of one's work and the inability to achieve work/life balance. There was also a perception of little recognition for work done, and a measure of concern about career prospects. However, respondents were more positive about the intrinsic interest and challenge of their work, although overseas doctors were much less satisfied with many aspects of their experience of working than UK doctors.

The current career situation

The current career situation of respondents was explored in order to understand where respondents have got to in their career decision-making. On the basis of their replies to questions about their current career situation, respondents were grouped into one of four categories:

1. Decided and satisfied with their career decision-making: 69% of respondents

2. Undecided and satisfied: 19% of respondents
3. Decided and not satisfied: 6% of respondents
4. Undecided and not satisfied: 6% of respondents

Although over half of final year students were undecided but satisfied, the proportion of respondents in this category fell off quickly over time. However, the proportion of respondents who were not satisfied with their career decision-making increased from 6% of final year students to 16% of the 1997/98 cohort and reduced only slightly to 13% of the 1995/96 cohort.

The same pattern existed for both UK and overseas doctors. This trend was not affected by gender, even though female final year students and PRHOs were slightly more likely to fall into the undecided category than their male peers. UK respondents from minority ethnic backgrounds were less satisfied with their current career situation than other UK respondents.

Over half (54%) of all respondents reported that there was an area of medicine which they had seriously considered and had now decided not to pursue. 42% of final year medical students and PRHOs had already decided not to pursue an area, while nearly two-thirds of the 1995/96 and 1997/98 cohorts were in this situation.

Respondents who were not satisfied with their career decision-making were more likely to have rejected an area of medicine and to be from minority ethnic backgrounds. Overseas doctors were also more likely to report that they had rejected an area of medicine than UK doctors.

More final year students and PRHOs had rejected areas of medicine than had definitely decided on the area they wanted to pursue, indicating that many early career decisions were about ruling areas out rather than deciding on a specific area in which to work.

Choosing a specialty

The survey questionnaire explored respondents' career choices and how the career preferences of male and female doctors differed. Surgery is still dominated by men, while roughly half the female doctors were considering General Practice.

Female respondents were more likely than male respondents to mention hours of work, nature of work/type of care and domestic issues as reasons for choosing their preferred area of work. Hours of work emerged as the most frequently mentioned reason for choosing General Practice.

Issues to do with working arrangements *eg* domestic issues and hours of work, were also the main constraints on choice of work area for women. Some areas of medicine, for example surgery, were also more likely to have been rejected by women at an early stage.

Hours of work and associated issues, such as working conditions and the availability of flexible working, were the main reasons for rejecting areas of medicine, even General Practice. Competition for SpR posts was also

an important reason why both female and male respondents rejected certain areas of medicine.

This indicates the degree to which career choice is being influenced by negative aspects of working arrangements and working conditions, and also by the level of competition for entry to specialist training. Respondents were being discouraged from entering or pursuing areas of medicine that they might otherwise had considered by factors not directly related to the nature of the work itself. The issue of competition also suggests that bottlenecks in the training system were a serious concern for medical students and doctors in training.

Views on career advice and factors influencing career progression

The majority (69%) of respondents preferred career advice given informally by people with direct and personal experience but nearly half (47%) also wanted access to impartial advice. Many survey respondents did not seem well informed about medical career options and nor did they feel well supported in finding out about them. Most doctors in training were also very concerned about their future career but did not feel well prepared to cope with many career issues.

Some groups of respondents had particular concerns. Overseas doctors were concerned about access to specialist training, and overseas and UK ethnic minority doctors were concerned about SHO appointment procedures.

Many of those considering surgery felt that they needed to complete a research degree as a pre-requisite for entry to surgical training and that they would be disadvantaged if they worked abroad during their SHO training. SpRs in surgery were also more likely to expect to complete sub-specialty training after they had obtained their CCST.

GP registrars and SHOs on the GP Vocational Training scheme were concerned about their treatment during hospital rotations.

95% of respondents reported that they had career guidance requirements. The proportion with requirements varied from 99% of final year medical students to 92% of the 1995/96 and 1997/98 cohorts. Some groups of respondents had more extensive requirements than others, notably women, overseas and ethnic minority doctors. The pattern of requirements suggested that respondents at all levels had needs both for more specific information and for detailed advice and guidance to help them make informed career choices.

Training and development experience

Survey respondents were moderately satisfied with the overall quality of their training, although many doctors in training feel they are not getting sufficient opportunities to train or to develop specialist skills. The survey indicates that there will continue to be a strong demand for flexible training opportunities, most of which will occur at a relatively late stage in respondents' training.

Lack of flexible training opportunities was a major cause of dissatisfaction. 42% of female respondents and 15% of male respondents had been put off training in certain specialities because of lack of flexible training opportunities, potentially aggravating shortages in some areas.

The majority (55%) of respondents were dissatisfied with the quality of career advice and guidance they had received. This strongly suggests that existing approaches are insufficient to meet their needs.

There was considerable dissatisfaction with SHO appointment procedures and with the balance between education/training and service provision. 64% of UK doctors in training were dissatisfied with the balance between education/training and service provision and nearly half (46%) of overseas and UK ethnic minority SHOs were dissatisfied with the way appointments were made to SHO rotations.

80% of doctors in training were dissatisfied with the training costs (*eg* exam fees) they have to meet and nearly half the doctors in training were dissatisfied with the support arrangements for study leave.

Career advice and guidance provision

There was a clear trend for survey respondents to look for advice within the profession and via informal rather than formal contacts. The five sources of career advice and guidance rated most useful by survey respondents were:

1. More experienced peers (93% rated as useful or very useful)
2. Senior doctors (87% rated as useful or very useful)
3. Family and friends who are doctors (83% rated as useful or very useful)
4. Peer group (80% rated as useful or very useful)
5. BMJ Classified[1] Career Focus (79% rated as useful or very useful)

Three sources/events rated as useful or very useful by less than half those who had used them were:

1. University Careers Advisory Services (41% rated as useful or very useful)
2. Medical School Careers Fair (44% rated as useful or very useful)
3. Lecture on careers at Medical School (46% rated as useful or very useful)

Overseas doctors and UK doctors from minority ethnic backgrounds appeared to make even less use of formal sources of advice and guidance. As these respondents have more career advice and guidance requirements, there is an issue about the extent to which existing provision is meeting their needs.

17% of respondents reported that lack of advice had led them to making decisions that they now regret and a further 5% said that lack of advice

[1] BMJ Classified has been renamed BMJ Careers

had possibly led them to make decisions that they now regret. While only 10% of final year medical students and PRHOs reported that lack of advice had, or possibly had, led to decisions they now regret, 36% of the 1995/96 cohort reported that it had. Respondents from minority ethnic backgrounds and women, to a lesser extent, were more likely to report that lack of advice had had a negative impact on their decisions. This suggests that there is a significant group of doctors in training whose needs are not being met by existing provision. It also suggests that it is at the SHO stage where doctors have the most difficulty in managing their careers and where career support is weakest.

The medical education perspective

As part of the research, medical schools and postgraduate deaneries were asked to comment on:

- Who is responsible for giving career support to medical students and doctors in training.
- How career information, advice and guidance is currently made available and how well this works.
- What they would like to see in terms of improvements in the area of career support to medical students and doctors in training.
- Other issues affecting the career choices of medical students and doctors in training.

Those interviewed were aware of the poor provision of career support to doctors in training but, while some interesting initiatives are undertaken, it appears that the system is very fragmented and poorly resourced. The current system of career advice relies mainly on one-to-one support by medical schools or postgraduate deaneries and access (formally or informally) to senior doctors.

The interviewees were fairly confident that the current system deals adequately with students and doctors in training in real crisis, but do not know how many doctors find their way into jobs they do not like and which may not use their skills to best advantage. Careers fairs are a common career intervention run by medical schools, although those interviewed were not convinced that career fairs are an effective mechanism for giving career information and advice. They see the potential of better and more accessible career information using the internet and web technology. This is an area where some national investment would be much welcomed.

Developing a strategy for medical career support

The main message from this research is that a proactive and educational approach to career advice and guidance provision is required. Medical career advice and guidance should be positioned as part of medical training. This implies a fundamental change of mindset in the whole approach to career advice and guidance for medical students and doctors in training.

This view is based on a number of issues revealed by the research.

1. The dissatisfaction with existing career support

2. Doctors' concerns over work-life balance
3. Evidence of inequality of opportunity
4. Disappointing training experiences
5. Weak structures for career advice
6. Fragmented responsibility for career support
7. Lack of transparency in workforce planning and lack of integrated information on job opportunities

It is important to be clear about the objectives for career guidance provision. This includes meeting the organisation's needs for skilled people, something which is particularly critical in the NHS. Existing provision seems to be based on an extreme form of self-help. This is very out of date compared with emergent practice in business organisations and elsewhere in the public sector.

A new strategy for career advice and guidance critically requires the development of interventions to enable individuals to:

- Develop career management skills
- Understand their interests and appraise their strengths and weakness
- Develop action plans for their career development and make more informed career decisions.

These interventions need to be underpinned by a variety of forms of career information (*eg* about career options, career paths, training requirements, levels of opportunity/competition). The existing informal support mechanisms, which are the main vehicle for on-going career support, also need to be enhanced, by building career advice more firmly into the roles of doctors in touch with junior grades. Much of the factual information required could be made available using the internet and by enhancing existing websites. Such initiatives are required to support the majority of doctors in training, who experience difficulty with their career planning, as well as to meet the needs of those who are disadvantaged within the present system.

There is also a need to establish a mechanism to co-ordinate work in the careers area at a national level. These efforts should actively involve those already developing innovative practice in medical schools but also bring the key national and local players together to share experiences and reduce development costs.

It will only be possible to move forward with improving medical career advice and guidance if there is broad agreement among the main stakeholders on the nature of the problem, and a shared willingness to act on the findings. The suggested dissemination strategy for the research, in addition to a widely distributed published summary of the research, is to organise a series of seminars at various geographical locations in England to present the findings and discuss their implications.

There are four main arguments for implementing the proposed changes.

1. **The wider issue of medical morale.** Many of the medical students and doctors in training in this study managed their careers in spite of the system rather than with any active support. They frequently felt

they could have made better career decisions. They wanted more active support for career decision-making than they received. The kinds of support advocated here would not be expensive compared with the formidable costs of medical training and could generate significant benefits in terms of morale.

2. **The dependence of the NHS on large numbers of overseas doctors.** The survey provides evidence that these doctors feel marginalised, but that they also have additional advice and guidance needs. A more diverse medical workforce will have even greater need for career advice and guidance if it is to ensure that medical careers are pursued on a level playing field.
3. **The persistent problems of combining medical training with family life**. These are aggravating shortages in certain specialties, distorting the deployment of the increasing numbers of female doctors, and – most seriously of all – potentially undermining the general future supply of students willing to study medicine. Although improved career advice and guidance will not solve the problem of work/life balance in medical careers, it will help people prepare for and cope with it.
4. **Deployment of skills.** Doctors are very expensive to train and it is important that they find their way into areas of medicine that they are good at as well as ones they like. In other organisations with highly skilled workforces, the deployment and development of scarce skills is the main driver for paying attention to career choice and investing in improved career advice.

This research has demonstrated that doctors have real problems finding their way through their career and training choices. It is wasteful and ineffective to keep ignoring this problem when a proactive and educational approach to career advice and guidance could make the complex career choice process less painful and more effective. More informed career choices by medical students and doctors in training would offer multiple benefits. Waiting until doctors encounter career problems is costly both to the individuals involved and the health care system in this country.

1. Introduction

At a time when there is generally agreed to be a national shortage of doctors, there is an urgent need to ensure that existing doctors in training have access to effective sources of career advice and to high quality career information. Yet experience elsewhere suggests that unless such career support is developed to focus on the specific requirements of doctors in training and is delivered at the most appropriate point in their training, it may well fail to achieve all that it sets out to do. The overall purpose of this research was to find out exactly what these requirements were and how best they might be catered for.

The study set out to examine the career advice and guidance needs of doctors in the early stages of their careers and was funded by the Department of Health under the Human Resources Research Initiative that was launched following the publication of Working Together (Department of Health, 1998). The research aimed to identify the career guidance and information support that doctors in training need at key career choice points during their medical training and in their early careers as doctors. It also reviewed existing career advice and guidance provision in order to suggest how this might be improved.

This report summarises the findings from the research study that was conducted by the National Institute for Careers Education and Counselling (NICEC) between February, 2000 and December, 2001. The main focus of the report is to present the results of a postal survey of the medical career advice and guidance needs of a nationally representative sample of doctors in training and final year medical students.

1.1 Background

The issue of career guidance for medical students and doctors during their training has been identified by a number of research studies of doctors' careers. Most notably, the series of studies on doctors and their careers carried out by Allen (1988a; 1988b; 1989; 1994) found a consistent need for improvements in the career advice and guidance given during postgraduate training. More recent longitudinal research on the career paths of doctors (Lambert *et al.*, 1996; Davidson *et al.*, 1998; Lambert and Goldacre, 1998) has identified factors influencing the career choice of doctors and reviewed trends in the choice of medical specialty. This research has clear implications for workforce planning as it documents the substantial shift away from General Practice as a career choice and highlights differences in the choice of medical areas between men and women. Other longitudinal research by the BMA (2001a) paints a similar picture. However, these research studies do not indicate how medical training or early career experience as a doctor influences career choice, or

to what extent career choice is influenced by career guidance interventions or information on labour market issues. They also focus on graduates from UK medical schools and, therefore, do not consider the situation of doctors from outside the UK who make up about a third of hospital medical staff (Department of Health, 2001b).

While initiatives have been carried out in some locations (Wilson and Reece, 1995; Porter, 1998), there is continued disquiet about the provision of career guidance (Carnell and Smith, 1996). In an editorial in the British Medical Journal, Allen (1996) referred to research she had undertaken which revealed the extent to which young doctors change their minds about which specialty to follow. Only 60% of men and just under half the women were still in the same specialty they had chosen at registration four years earlier. Another more recent study (Luck, 2000) has found that career indecision was, in itself, a considerable cause of stress for up to a quarter of doctors in training.

At the same, medical training has been evolving as the Calman reforms bed down and the medical profession continues to become more diverse. Other changes, such as the rapid expansion of non-consultant career grade posts, underscore the fact that the range of career pathways facing doctors in training is becoming more complex and that career outcomes may be less certain for current doctors in training than was the case for earlier generations of doctors. However, while competition for entry into some specialties is more intense than ever, there are shortages in the numbers coming forward for training in others.

Recent discussion papers from the Junior Doctors Committee at the BMA (1998; 2001) have also raised concerns over the existence of career bottlenecks at the SHO grade and the lack of structure to a doctor's career at that stage of training. Some of these concerns are undoubtedly caused by a lack of easily available career information on such things as the competition for entry into Specialist Registrar training. However, there also appears to be a general lack of accurate, yet impartial, information, advice and guidance.

To date, there has not been any systematic research to determine what the career guidance needs of doctors in training are, or whether they are being met. These are the issues that this research project set out to explore. In particular, the study set out to gather detailed information from final year medical students and doctors in training on their career advice and guidance needs via a postal questionnaire survey that was conducted with a nationally representative sample from five year cohorts chosen to represent key career stages of medical training.

1.2 Changes in the medical profession

The medical profession has changed in a number of ways over the last 10 years. There are changes in the structure and composition of the medical workforce, changes to training and to doctors' working conditions. Many of these workforce trends are set to continue and will have implications for the types of career support that are needed during training.

At the same time, it is likely that the career expectations of medical students and doctors in training will have been changing, both in response to more general changes in the labour market and in line with

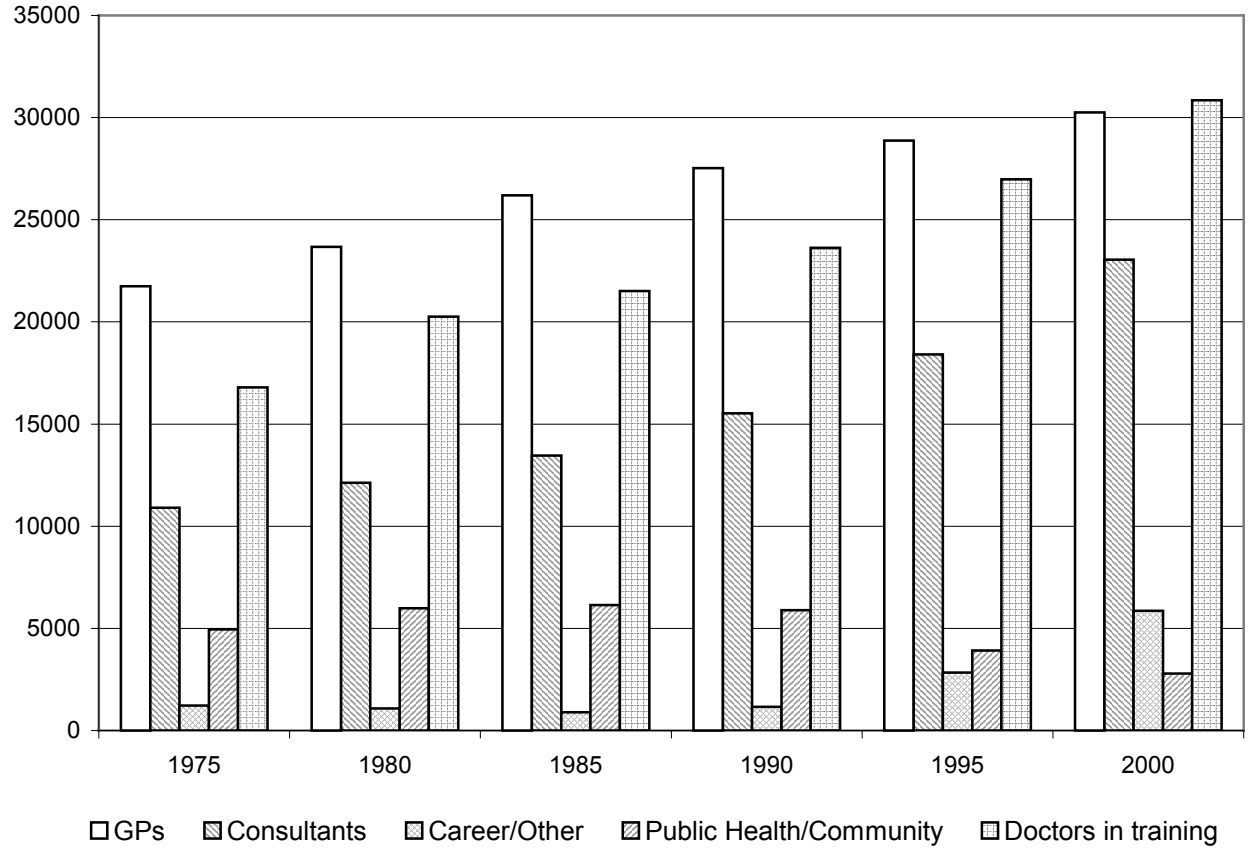
the expectations of their peers in related professional fields as other research has shown (Winter and Jackson, 1999).

1.2.1 Increasing numbers of doctors

The total number of NHS doctors in England increased from 73,725 in 1990 to 92,789 in 2000, an increase of 26% (Department of Health, 2001a). However, most of this increase took place in hospital medical staff. The number of Hospital Consultants increased by 48% from 1990 to 2000, while the number of General Practitioners[1] (GPs) only increased by 10%.

This reflects a long term shift in the balance of the medical workforce in England from primary to secondary care (see Figure 1.1). While there was approximately one Consultant for every 2 GPs in 1975, by 2000, there were roughly 3 Consultants for every 4 GPs. Other significant changes include a fivefold increase over the last 10 years in the number of doctors working in Career/other grades, mostly in Staff or Associate Specialist grades.

Figure 1.1: Changing profile of Medical workforce in England 1975-2000



Source: Department of Health: All NHS doctors at a glance

[1] The figures for the number of GPs include GP Registrars.

1.2.2 More women doctors

Women made up 58% of UK applicants entering medical school in 2000, up from 49% in 1990. Over the last 20 years the number of women entering medical school in the UK has more than doubled, while the number of male applicants has increased by less than 10%.

This is having a steady but long-term impact on the proportion of women in the medical workforce. By 2000, women made up 34% of all hospital medical staff compared to 27% in 1990. The total number of female hospital medical staff has increased by 71% since 1990 to 22,400 in 2000. In 2000, 37% of all registrars were women (Department of Health, 2001a).

However, the career progression on women in hospital medicine has been slower than expected. One of the goals of Opportunity 2000 (NHS Executive, 1992) was that, by 1994, 20% of hospital consultants should be women. This goal was not achieved until 1998 and women are still underrepresented in many hospital specialties, although the number of female consultants has more than doubled in the last 10 years in the following specialties: A & E, clinical oncology, general medicine, obstetrics and gynaecology, paediatrics and surgery. As a result, by 2000, women accounted for over a quarter of all consultants in clinical oncology, paediatrics, pathology, psychiatry and radiology, and over half the registrars in clinical oncology, paediatrics, pathology and psychiatry, and nearly half in obstetrics and gynaecology. However, women make up only 6% of consultants in surgery and 15% of surgical registrars (Department of Health, 2001b).

Nevertheless, initiatives, such as Women in Surgical Training (WIST), may be having some impact. The number of female consultant surgeons has increased by 31% in the last two years. WIST, which was set up by the Royal College of Surgeons and the Department of Health, has a target to increase the number of women consultants in surgery to 10% within another three years and to 20% by 2009.

1.2.3 Expanding role for overseas doctors

Overseas doctors made up about a third of hospital medical staff in 2000 (Department of Health, 2001b). Most (82%) overseas doctors qualified outside the European Economic Area (EEA). The total number of hospital medical staff who qualified outside the EEA was 16,720 in 2000 and they represented 26% of the total in 2000 compared to 23% in 1995. The number from EEA countries was 3,640 in 2000, which represented 6% of the total, a proportion that was unchanged from 1995.

While just under half the doctors who qualified outside the EEA were in training grades, about two thirds of doctors in the staff grade and associate specialist grade qualified outside the EEA.

1.2.4 Ethnic origin

People from ethnic minorities make up a sizeable proportion of the medical workforce. While the ethnic origin of a small percentage (1.6%) of hospital medical staff is not known, about a third are non-white. Figures

for 2000 (Department of Health, 2001b) indicate that 19% were Asian, 4.5% Black and 8.5% from other ethnic groups. However, this masks considerable variation by grade with 80% of Consultants being white compared to 64% of Registrars and 56% of Senior House Officers (SHOs). The trend is similar among UK qualified staff, with 91% of Consultants being white compared to 81% of Registrars and 72% of SHOs.

1.2.5 Implications

These broad changes to the structure of the medical workforce have considerable implications for the career development of doctors in training and for workforce planning. They also have to be considered against a steady year on year increase in demand for NHS services.

There are concerns about racism in medicine (see Coker, 2001) affecting the career opportunities and access to training of overseas and ethnic minority doctors. Although it is only a matter of time before the majority of doctors are female, the career progression of women to senior roles in the profession has been slower than expected (Federation of Royal Colleges of Physicians, 2001).

These changes also raise issues about how the training system will adapt to offer more flexible training *ie* on a part-time basis, for late starters, for refugee doctors, for doctors currently in non-consultant career grade posts, *etc.* Changes in training also need to be linked to the availability of more flexible work opportunities, especially in hospital medicine. The Improving Working Life Initiative has set out to address some of these issues (Department of Health, 2001c) but it remains to be seen how well the new workforce planning arrangements (Department of Health, 2000) will take account of these factors. Other factors, such as the new pay deal, may be leading to a decrease in flexible working opportunities (Davies and Eaton, 2002). However, flexibility is not just an issue for doctors in training but throughout the medical career (Royal College of Physicians/British Association of Medical Managers Working Party, 2002).

Expansion of part-time work opportunities will also increase the number of doctors who need to be trained. There is a certain irony that, without more part-time work opportunities, many doctors may decide to stop working in the NHS, either temporarily or even permanently, which would in turn lead to even greater shortages.

While it is generally agreed that there is a national shortage of doctors, there is considerable variation in the degree of competition for entry to specialist training. Some specialties, for example, radiology, histopathology, general psychiatry, have been unable to recruit to national training targets for several years. In other areas, notably obstetrics and gynaecology, there is a concern that too many specialists are being trained and that there may not be consultant posts available for them when they qualify.

There has also been concern about the training and supply of GPs (Mathie, 2000) and the particular problem that will occur when a generation of GPs, frequently Asian, working in many inner city areas retires (Taylor and Esmail, 1999).

There has also been considerable debate about the impact of the Calman reforms on aspects of medical education and training. For example:

- Is the training system more rigid?
- What are the implications for academic and research medicine?
- Are training times shortened?

Or are more doctors spending longer in the SHO grade, being unable to progress to SpR programmes (Galasko and Smith, 1999)?

Some of these concerns are to do with the operation of the system in practice, for example how national training numbers are decided, but others reflect on the structure of medical training. In addition, there is uncertainty whether sufficient consultant posts will be created by NHS trusts for all those who are expected to obtain their Certificates of Completion of Specialist Training (CCST) (Mather, 2000).

The training system will face further challenges as the Working Time Directive is implemented over the next few years. For example, the entitlement to 11 hours continuous rest in every 24 hour period is likely to lead to shift working for many doctors in training (Department of Health, 2001b). This has raised a number of concerns about the implications that shift working will have for training, especially for Specialist Registrars (Royal College of Physicians Trainees Committee, 2001).

For all these reasons, it would appear that medical career choices may well be becoming more complex and career outcomes less certain than they were previously.

1.3 The research study

The study set out to identify the career guidance and information support that doctors in training need at key career choice points during medical training and in their early careers as doctors. The research also reviewed existing career guidance provision in order to suggest how this might be improved. The study sought to integrate information about three inter-linked aspects of career choice for doctors in training:

1. The significance of particular career decisions in terms of their potential consequences
2. The factors important to doctors in training in making career decisions and the way these decisions are made
3. Their access to information and guidance to support their career decisions.

The focus of the research was to understand the career choice process from the perspective of doctors in training so that career support is developed to meet their specific needs.

It should be stressed that it was not part of the research brief to review the content of medical education and training. This is beyond the researchers' field of competence and is the proper concern of the relevant medical professional bodies. Nor is it the intention of the research to comment on wider aspects of health policy or related issues.

However, in order to develop a strategy to improve the career advice guidance available to final year medical students and doctors in training, it is necessary to understand how the current training system is experienced. As a result a considerable part of this report is concerned with describing current career and training experiences in order to clarify requirements for career advice and guidance.

1.4 Methodology

The study had several components which were designed to generate a comprehensive picture of the career advice and guidance needs of medical students and doctors in training. These included:

1. Mapping the range and diversity of existing career advice and guidance provision
2. Consulting those responsible for policy-making in medical education
3. Identifying examples of best practice career support in medicine and elsewhere
4. Conducting a national survey of doctors in training and final year medical students.

The first three components of the research were intended to assist in the identification of issues to be included in the survey, to provide contextual information for the interpretation of the survey findings and to give the medical education perspective on the issue of career support for doctors in training. Information was generated from interviews with key informants and by reviewing the relevant research literature. All 18 medical schools in England were written to and asked to nominate a contact person for the research. In several cases, the person nominated was from a postgraduate deanery. Fifteen medical schools replied and 15 individuals from 13 of these medical schools or their associated deaneries were interviewed as part of the research. In addition, other key informants were also interviewed[1]. An Advisory Group with medical representatives was also set up to assist the researchers.

Doctors in training were consulted in a variety of ways. A seminar was held at the BMJ Classified Career Fair in June 2000 and a short questionnaire was given out with the registration pack to all those attending this event. In addition, focus groups were held in Birmingham and a draft questionnaire was piloted with doctors in training in West Sussex Health Authority.

A major element of the study was the nation-wide postal survey of final year medical students and doctors in training. The survey was designed to measure satisfaction with existing arrangements for career guidance, respondents' personal experience of career guidance, their use of formal and informal guidance sources, information needs, and to assess their views about career guidance needs and priorities. The factors which affect how career decisions are made were also assessed in the survey.

The survey was cross-sectional in design with a representative sample stratified by career stage. The original proposal identified three critical

[1] A list of those interviewed is included in Appendix 1.

career stages (i) final year of clinical training; (ii) pre-registration; (iii) post-registration. However, with many doctors now spending longer at the SHO grade, it was decided to increase the sample size by including two additional cohorts at the post-registration stage. The final sample design for the research targeted five year groups.

1. Medical students in their final year of clinical training
2. PRHOs who qualified in 2000
3. Doctors in training (qualified 1998/registered 1999/2000)
4. Doctors in training (qualified 1996/registered 1997/98)
5. Doctors in training (qualified 1994/registered 1995/96)

Both UK and overseas doctors working in England were included in the sample with a target that overseas doctors should make up a quarter of respondents in the post-registration groups.

The survey sample was taken from the BMA membership records. As overseas doctors are under-represented in the BMA membership, it was decided to include all overseas doctors and PRHOs who were members of the BMA in the sample frame. As a result, overseas doctors made up 28% of the sample of doctors.

The decision to conduct a cross-sectional survey rather than a longitudinal prospective study following up a cohort over time was made primarily as a result of the limited time available for the study. A longitudinal study would have taken at least two or three times as long to carry out.

The survey, which was launched in April 2001, achieved an overall response rate of 42% with 1,740 completed questionnaires being returned in time to be included in the analysis with overseas doctors making up 24% of respondents. The survey achieved a lower response rate from PRHOs (38%) and from overseas doctors in the 1995/96 cohort (18%). Many of this latter group might have no longer been in training and some might have already left the country.

Full details of the survey methodology and response rate are given in Appendix 2. Copies of the survey questionnaires are available from the authors.

1.5 Profile of survey respondents

Overall, the 1,740 respondents who completed the survey represent about 5% of the total number of doctors in training and final year medical students in England, although the sample design deliberately under-represented specialist registrars. Table 1.1 provides a breakdown of the survey respondents on key variables that will be used in the more detailed analyses in subsequent chapters of the report.

Main points to note from this table are that:

- there is a trend in grade progression across the year groups with the proportion of respondents who were SHOs declining from 94% of the 1999/2000 year group to 16% of the 1995/96 year group. This trend was reversed for all other grades, except GP Registrars

Table 1.1: Profile of respondents

	Final year	PRHO	1999/2000	1997/98	1995/96	All respondents
	%	%	%	%	%	%
Grade						
Final year	100					18
PRHO		100				15
SHO			94	44	16	34
GP Registrar			1	14	9	6
SpR			2	22	45	16
Clinical Research Fellow			0	8	10	4
Staff Grade			0	1	4	1
GP/Locum GP			0	8	14	5
Other			1	2	2	1
Not working as a doctor			0	1	1	1
Total cases	*313*	*254*	*344*	*460*	*340*	*1740*
Gender						
Male	38	38	46	47	41	43
Female	62	62	54	53	59	57
Total cases	*312*	*252*	*338*	*456*	*335*	*1721*
Nationality						
UK	92	92	75	76	78	81
EEA Country	2	3	7	10	14	8
Other Country	6	6	18	14	8	11
Total cases	*312*	*252*	*338*	*455*	*333*	*1718*
Minority ethnic background						
Yes	18	24	28	24	20	23
No	82	76	72	75	79	77
Not answered	0	0	1	0	1	1
Total cases	*312*	*252*	*338*	*456*	*335*	*1721*

Source: Medical Career Advice and Guidance Survey, 2001

- women were the majority in all year groups ranging from 62% of final year and PRHOs to 53% of the 1997/98 year group
- there were relatively few overseas doctors among the final year students and PRHOs but a higher proportion in the other year groups, although fewer non-EEA doctors than expected in the 1995/96 cohort
- 23% of all respondents described themselves as a member of an ethnic minority with slightly fewer in the final year and 1995/96 year groups, which was a reflection of the smaller proportion of doctors from outside the EEA in these year groups

Further analysis of employment and background information from the survey indicated that:

- 59% of UK respondents were female compared to 57% of EEA nationals and 42% of respondents from other nationalities
- 17% of UK respondents were from ethnic minorities as were 77% of non-EEA respondents
- female respondents were more likely than male respondents to be on the GP Vocational Training scheme, to be GP Registrars or qualified GPs
- 12% of SHOs had been in the SHO grade for more than five years and a further 44% had been between three and five years in the SHO grade
- 13% of respondents were in locum positions and 8% of SHOs and 5% of SpRs reported that they were not in training posts
- 15% of respondents who reported they were in the SpR grade were in locum or temporary positions

More detailed information on the profile of survey respondents is presented in Appendix 3, which also includes analysis of the representativeness of the survey respondents against national data. The survey design meant that specialist registrars were under-represented in the survey target population and that SpRs among survey respondents would be younger and more likely to be female than SpRs as a whole.

The analysis of the survey response suggests that women are over-represented among the survey respondents, while people from ethnic minorities and doctors who qualified outside the EEA are under-represented. Both these effects appear to be mainly due to the under-representation of doctors who qualified outside the EEA, who are more likely to be male and to be from ethnic minorities. These effects are strongest in the Registrar Group.

This is partly a function of known biases in the BMA membership which under-represents overseas doctors, although the sampling strategy set out to compensate for this. The low response rate from overseas doctors in the 1995/96 cohort will have accentuated these effects.

However, the absolute number of overseas doctors among the respondents means that it is possible to contrast their replies with those from UK doctors. Similarly, the number from minority ethnic backgrounds among the UK respondents is sufficient to permit separate analysis of their replies.

1.6 Terminology and approach to survey analysis

The term doctors in training is used in preference to the term junior doctors throughout this report. Doctors in the Senior House Officer (SHO) grade, Clinical Research Fellows, GP Registrars and Specialist Registrars (SpR) are collectively referred to as doctors in training. Pre-registration House Officers (PRHOs) and final year medical students are separately identified in most analyses but are occasionally considered as a single group, for example to allow comparisons by gender.

Overseas doctors refers to doctors whose nationality is not British and includes doctors from inside and outside the European Economic Area. Most, but not all of this group, will have qualified outside the UK.

Key variables used in the analysis of the survey data were:

1. **Year group**: 5 categories reflecting the sample design
2. **Grade** with additional categories for final year medical students and PRHOs
3. **Gender**
4. **Nationality**: UK versus non-UK respondents
5. **Ethnicity**: all those from minority ethnic backgrounds, although sometimes analysis is carried out to compare the replies of UK respondents from minority ethnic backgrounds with those of other UK respondents.

The main focus of the survey analysis is to contrast the experiences of these different groups of respondents. There were relatively few PRHOs or final year medical students who were not from the UK. Therefore in analyses to compare overseas doctors with UK doctors, only respondents who were doctors in training have normally been included. In addition, for some analyses comparisons have been made in terms of the length of time that respondents have been in the SHO grade.

In general, there are too few respondents working in individual specialty areas to permit detailed analysis of replies by either the specialty the doctors in training were working in, or the areas of medicine that respondents were considering. Such analysis would also be affected by the varying proportions of respondents at different career stages, meaning that it is difficult to be sure of the equivalence of groups of respondents working in different areas. However, reasons for choosing particular specialty areas are reviewed.

A survey of this kind generates a rich source of data, not all of which can be presented in a report. Statistics supporting the key points made in the text are included as tables and figures within the chapters. Levels of statistical significance are not routinely reported in the text but in all cases differences between groups of respondents are statistically significant at the $p<.01$ level unless specified otherwise. Additional relevant information is presented in appendix tables and figures. The total number of cases shown in tables varies somewhat according to the numbers of participants who answered each question. Percentages do not always sum to 100 per cent due to rounding on each item. Key points are summarised at the end of each chapter.

Appendix 4 sets out the main stages of the medical career structure for readers not familiar with it and a list of commonly used abbreviations is given in the glossary at the front of the report.

1.7 Structure of the report

This report presents the main findings from the research and its implications for the provision of career advice and guidance for doctors in training.

Six chapters present an overview of the survey results. Chapter 2 starts by exploring the values that underpin and direct doctors' career choices. It tries to answer the question what motivates doctors. Chapter 3 describes the current situation of respondents in terms of where they are at in their career decision-making, while Chapter 4 moves on to explore the areas of medicine that respondents were considering and the factors that influence their choices. Chapter 5 reviews respondents' attitudes to questions that asked about issues to do with careers in medicine and the provision of career advice. This is followed by chapters reviewing respondents' experience of training and development (Chapter 6) and their experience of using different sources of career advice and guidance (Chapter 7). The survey findings aim to give an account of how training and early career experiences shape the career development of medical students and doctors in training, and to examine their implications for career advice and guidance provision.

Chapter 8 presents the medical education perspective on career advice and guidance issues and is based on interviews with nominated individuals representing medical schools as well as other key informants. The final chapter of the report reviews the main research findings and sets out the basis for a new approach to the provision of career advice and guidance for medical students and doctors in training.

2. What motivates doctors?

Motivation and the values that underpin it are major factors in determining career choices. The survey set out to identify the factors that influence doctors' career choices. Respondents were asked to rate the importance to them personally of 18 features of working life widely relevant to making career choices.

Respondents had the opportunity to mention other factors but only 6% of respondents did so. In many cases these were more particular instances of factors already included in the list. They have, therefore, not been included in the analysis presented here.

Each feature was rated on a four point scale from 1 *Not important* to 4 *Extremely important.* Respondents were also asked to indicate which three of the features were most important to them.

Final year medical students and PRHOs were then asked to what extent they expect these features to be available in their career as a doctor, while the doctors in the three post-registration year groups were asked to what extent they had found the features to be available in their work experience to date as a doctor. Both groups were asked to rate the features on a four point scale from 1 *Not at all* to 4 *To a great extent*.

First of all, this allows a picture to be built up of the features which motivate different groups of respondents. Secondly, it is possible to explore the expectations of final year medical students and PRHOs. Finally, both of these can then be contrasted with the experience of doctors in training.

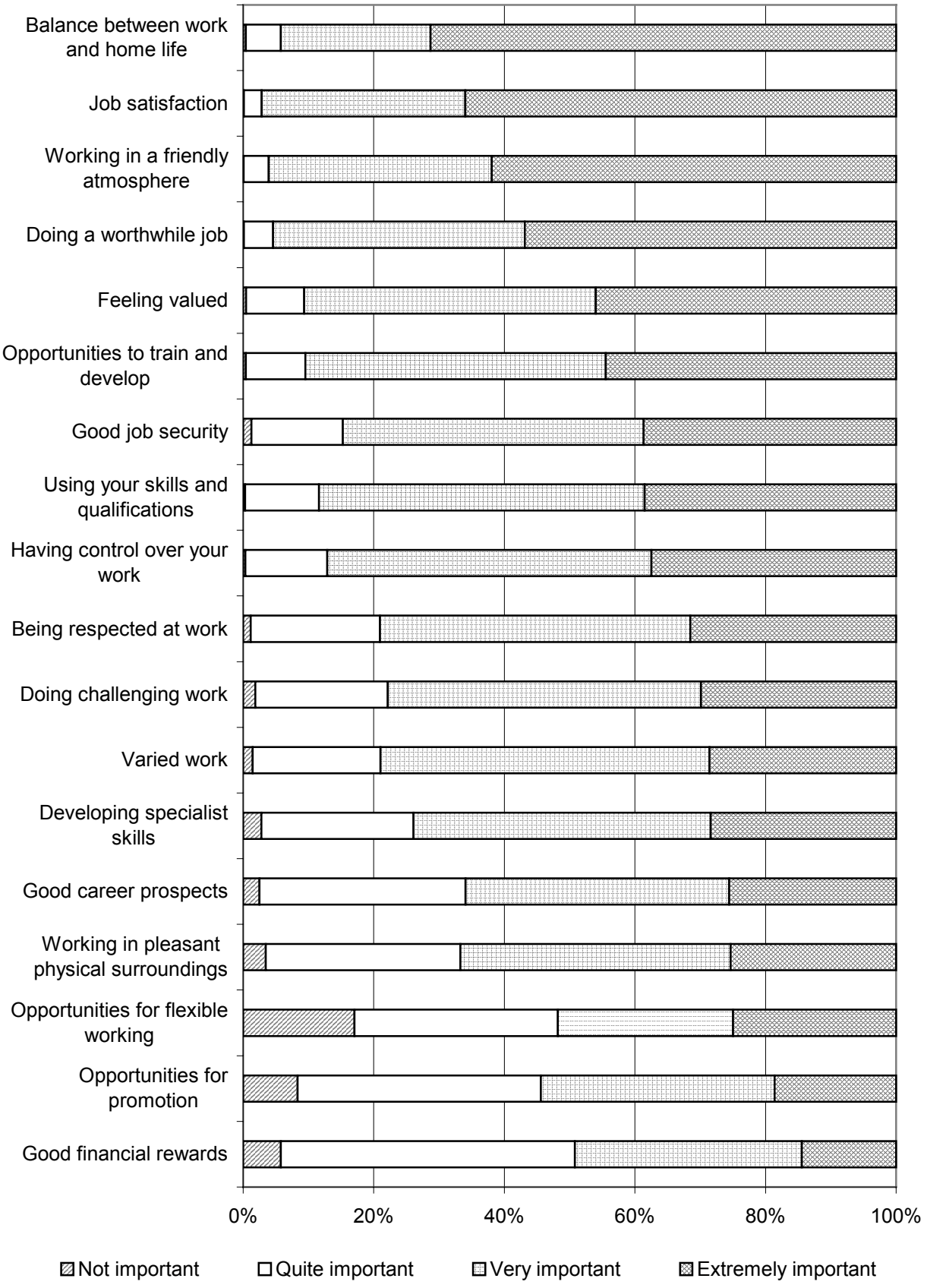
The purpose of this chapter is to generate a more detailed understanding of the underlying factors that drive and influence the career decision-making of doctors in training and medical students.

2.1 Features important in career choice

The overall picture of the importance of each feature to respondents is shown in Figure 2.1. Note that in the figure, the features are arranged in their descending order of importance. Four features were rated as extremely important by over half the respondents. These were:

- Balance between work and home life (71% rated extremely important)
- Job satisfaction (66% rated extremely important)
- Working in a friendly atmosphere (62% rated extremely important)
- Doing a worthwhile job (57% rated extremely important).

Figure 2.1: Importance of features in career choice



Source: Medical Career Advice and Guidance Survey, 2001

Opportunities for promotion and good financial rewards were the two features that fewest respondents rated as extremely important to them, although opportunities for flexible working was rated not important by 17% of respondents.

Remarkably, the same four features were most frequently rated as extremely important by all year groups and the same two were also the ones least frequently mentioned. Although these findings will be influenced to some degree by the demographic make-up of the survey respondents, they suggest strong continuity across the five groups of respondents at different career stages in terms of what is most important to them in their career decision-making.

2.1.1 Gender differences

However, there were clear differences by gender in terms of what features were important to respondents. In particular, two-thirds of female respondents rated opportunities for flexible working as very or extremely important to them compared to a third of male respondents. Female respondents were also more likely than male respondents to rate balance between work and home life as extremely important (76% compared to 65%).

In contrast, four features were rated as more important by male than female respondents. These were:

- Developing specialist skills (81% of male respondents rated as extremely or very important compared to 69% of female respondents)
- Good career prospects (75% of male respondents rated as extremely or very important compared to 60% of female respondents)
- Opportunities for promotion (66% of male respondents rated as extremely or very important compared to 47% of female respondents)
- Good financial rewards (59% of male respondents rated as extremely or very important compared to 43% of female respondents)

2.1.2 Overseas doctors

Developing specialist skills, opportunities to train and develop, and good career prospects were more frequently rated as extremely important by overseas doctors than UK doctors, while overseas doctors were less likely to rate balance between work and home life as extremely important to them than UK doctors.

2.2 Three most important features in career choice

When respondents were asked to identify which three features were most important to them personally, the pattern of results was broadly consistent with the initial analysis, although some further differences were also apparent. In particular, it was possible to explore differences between UK and overseas respondents by gender (see Table 2.1).

This analysis indicated that balance between work and home life was much less important to male overseas doctors, while good career prospects were more important to them.

Table 2.1: Percentage identifying feature as amongst three most important

	UK Male		UK Female		Overseas Male		Overseas Female	
	Rank	**%**	**Rank**	**%**	**Rank**	**%**	**Rank**	**%**
Balance between work and home life	**1=**	52	**1**	65	**3**	30	**1**	55
Job satisfaction	**1=**	52	**2**	52	**1**	40	**2**	48
Working in a friendly atmosphere	**4**	22	**4**	25		20	**4=**	19
Doing a worthwhile job	**5**	19	**3**	26		12		13
Feeling valued		16	**5**	21		12		16
Good financial rewards	**3**	27		11	**5**	24		14
Opportunities to train and develop		14		16	**4**	28	**3**	30
Doing challenging work		18		12		8		8
Good career prospects		17		8	**2**	35		17
Good job security		11		9		19	**4=**	19
Using your skills and qualifications		11		9		12		10
Opportunities for flexible working		2		13		4		12
Varied work		9		8		4		5
Being respected at work		8		8		9		7
Having control over your work		7		5		4		7
Developing specialist skills		5		4		12		8
Working in pleasant physical surroundings		3		2		5		5
Opportunities for promotion		2		1		10		4
Total cases	*566*		*827*		*165*		*155*	

Source: Medical Career Advice and Guidance Survey, 2001

Opportunities to train and develop, and good job security were also more important to overseas than UK respondents. On the other hand, doing a worthwhile job was more important to female respondents from the UK than other groups of respondents.

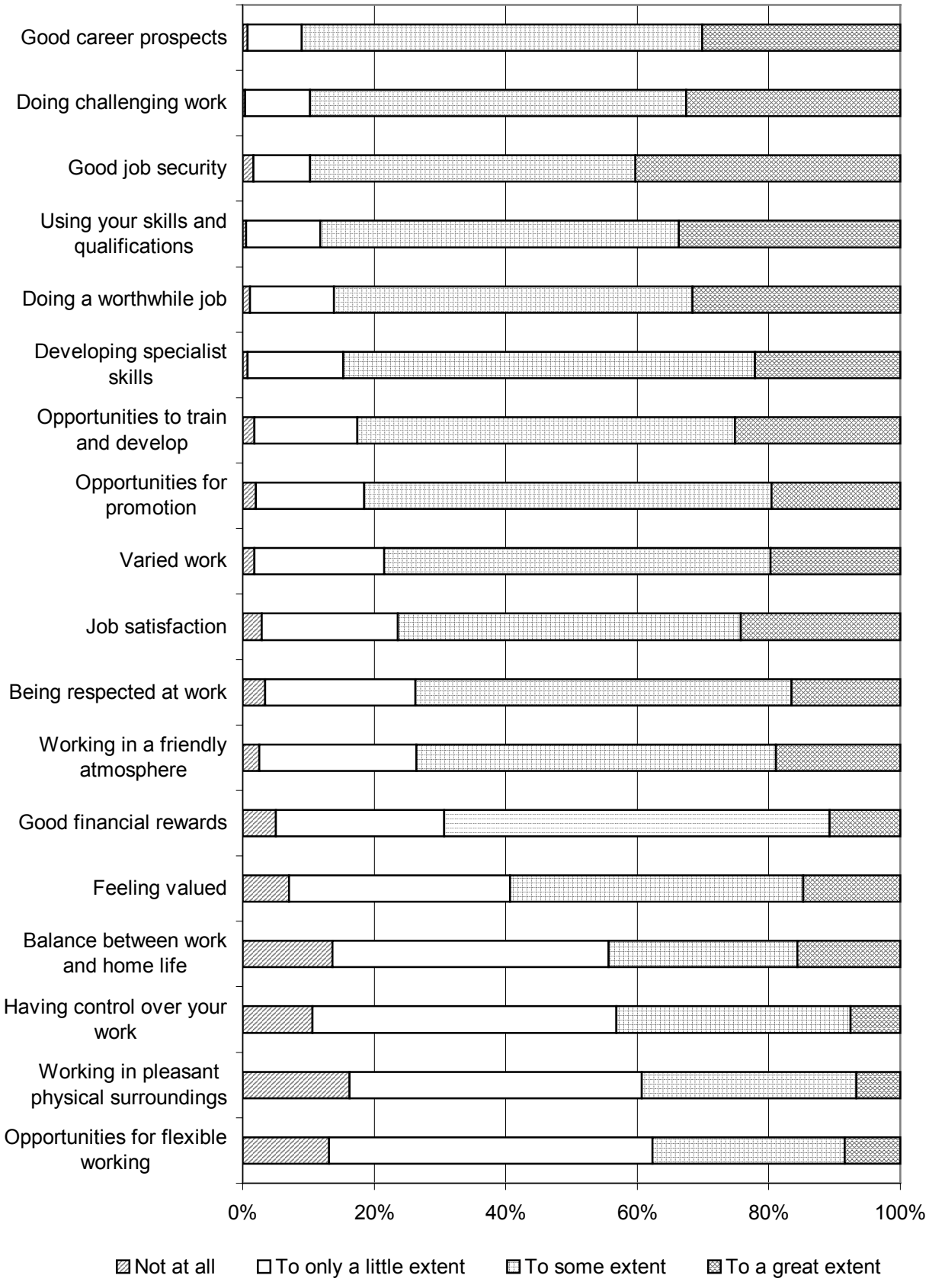
Other differences by gender of respondent persist regardless of nationality with good financial rewards being more important to male respondents than female ones and opportunities for flexible working also being more important to female respondents.

2.3 Expectations of final year students and PRHOs

Figure 2.2 summarises the expectations of final year students and PRHOs about the extent to which they expect the various features to be present in their career of working as a doctor.

The features can be grouped into eight that more than 80% of respondents expected to experience to some or a great extent, six features that between 60 and 80% expected to experience and four features that less than half the respondents expected to experience.

Figure 2.2: Expectation of features by PRHOs and final year medical students



Source: Medical Career Advice and Guidance Survey, 2001

The features most expected to some or a great extent included:

- Good career prospects (91% expected)
- Doing challenging work (90% expected)
- Good job security (90% expected)
- Using your skills and qualifications (88% expected)
- Doing a worthwhile job (86% expected)

The four least expected features were:

- Opportunities for flexible working (37% expected)
- Working in pleasant physical surroundings (40% expected)
- Having control over your work (44% expected)
- Balance between work and home life (45% expected).

The low expectation for balance between work and home life is a particular cause for concern because it was consistently rated the most important feature by all groups except overseas male doctors.

There was a general trend for female final year students and PRHOs to have higher expectations than their male peers, although in most cases differences were slight. The largest differences were:

- Feeling valued (64% of female respondents compared to 51% of male respondents expected to some or a great extent)
- Balance between work and home life (49% of female respondents compared to 37% of male respondents expected to some or a great extent)
- Opportunities for flexible working (42% of female respondents compared to 31% of male respondents expected to some or a great extent)

These last two findings suggest that these female final year students and PRHOs were expecting to pursue their careers as doctors differently from their male peers.

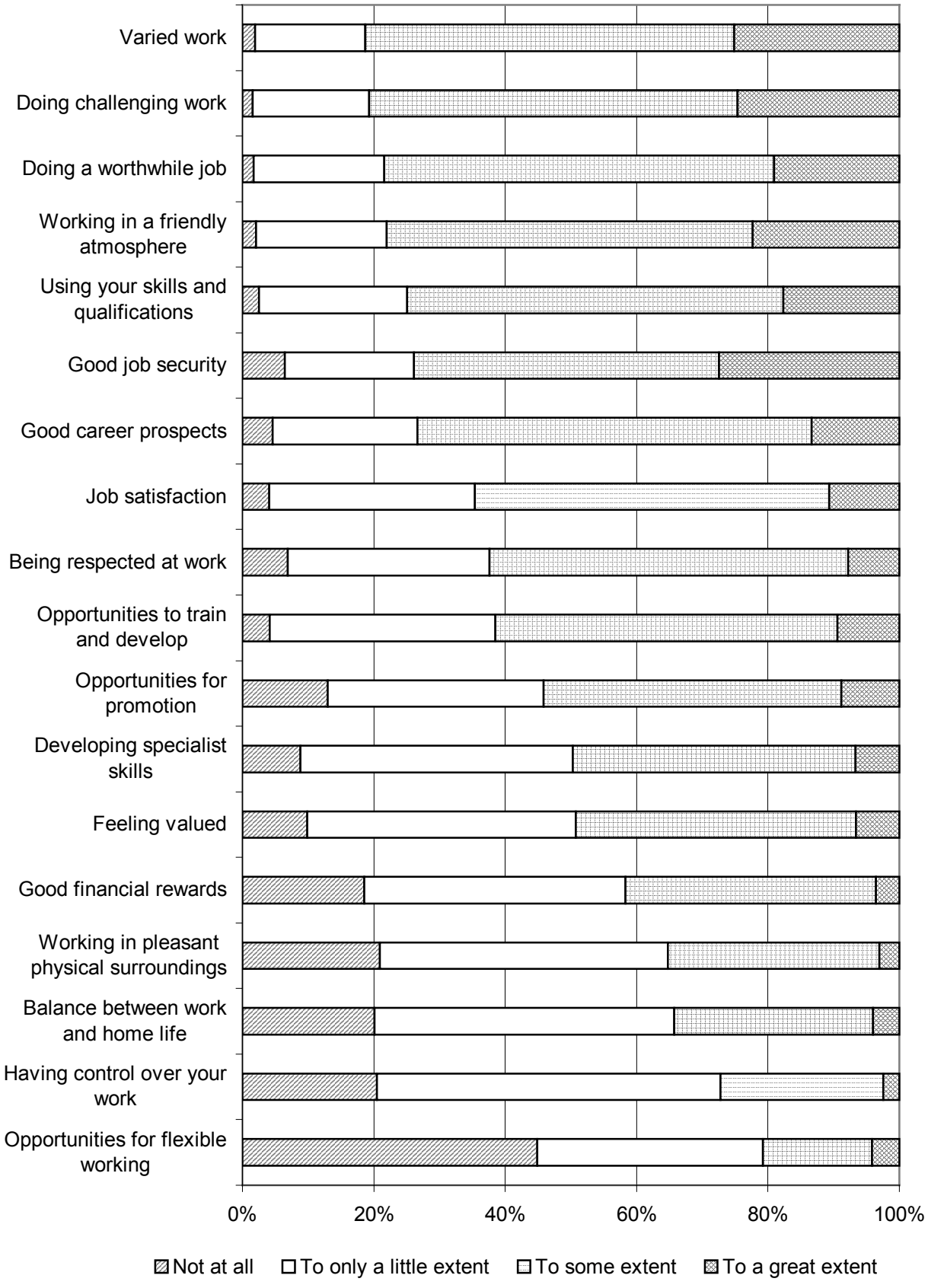
2.4 Features of working life in reality

The experience as a doctor of these features by the three post-registration year groups of respondents in grades SHO and above are summarised in Figure 2.3. The features can be grouped into those that more than three-quarters of doctors reported experiencing to some or a great extent, those that between a half and three-quarters reported experiencing and those that fewer than half the respondents reported experiencing.

The five features most frequently experienced to some or a great extent were:

- Varied work (81% experienced)
- Doing challenging work (81% experienced)
- Working in a friendly atmosphere (78% experienced)

Figure 2.3: Doctors' experiences of features



Source: Medical Career Advice and Guidance Survey, 2001

- Doing a worthwhile job (78% experienced)
- Using your skills and qualifications (75% experienced)

The five least experienced features were:

- Opportunities for flexible working (21% experienced)
- Having control over your work (27% experienced)
- Balance between work and home life (34% experienced)
- Working in pleasant physical surroundings (35% experienced)
- Good financial rewards (42% experienced)

The low experience of balance between work and home life is a serious concern given its high importance to respondents.

When the replies of male and female doctors in training were compared, there was a trend for female respondents to be more positive in their experiences. The largest differences were on the following features:

- Varied work (85% of female respondents compared to 76% of male respondents experienced to some or a great extent)
- Good job security (79% of female respondents compared to 68% of male respondents experienced to some or a great extent)
- Using your skills and qualifications (78% of female respondents compared to 71% of male respondents experienced to some or a great extent)
- Opportunities for flexible working (22% of female respondents compared to 13% of male respondents experienced to some or a great extent)
- Working in a friendly atmosphere (82% of female respondents compared to 74% of male respondents experienced to some or a great extent)

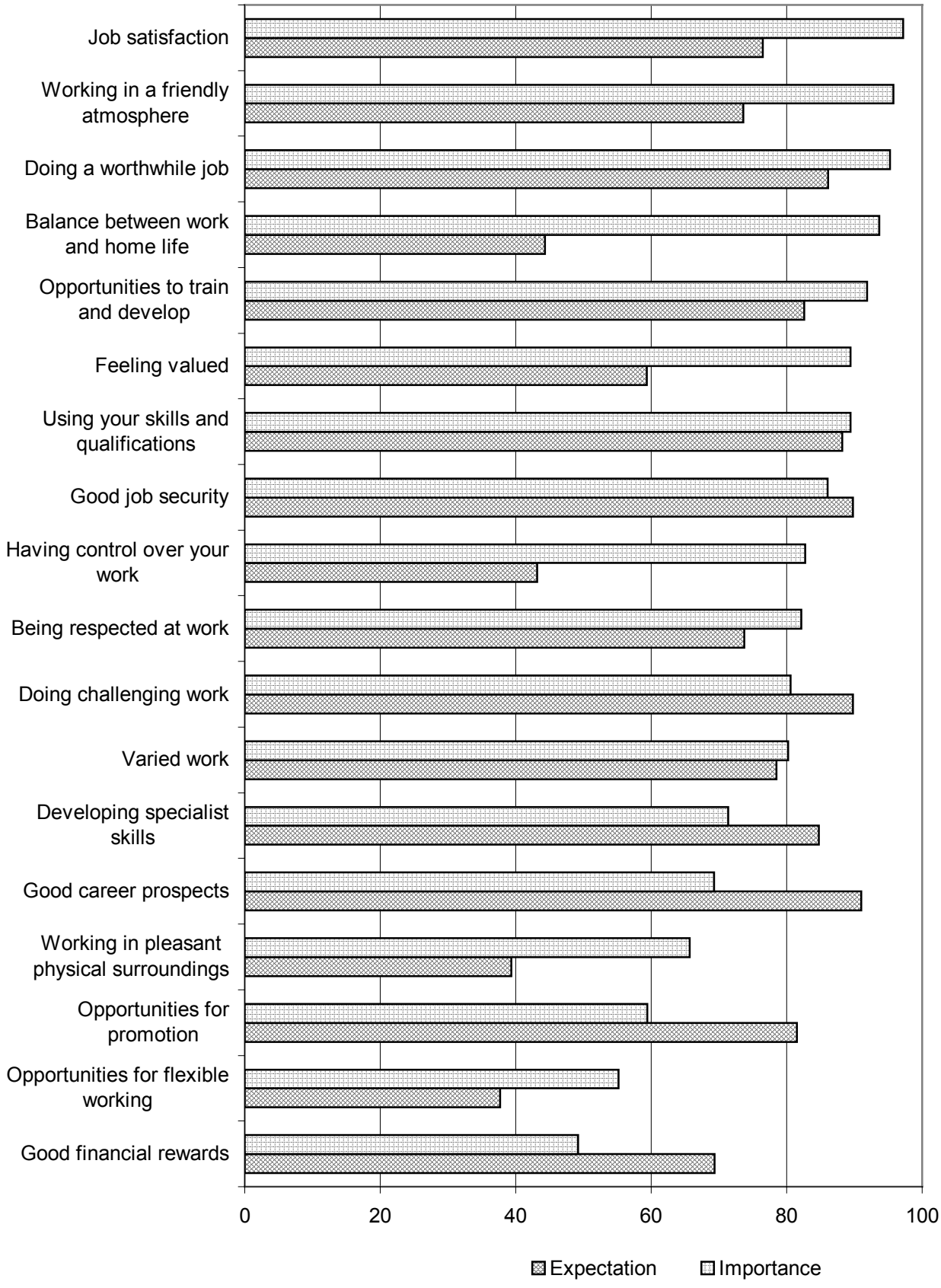
2.5 Importance and expectation compared: final year students and PRHOs

How did respondents' expectations compare with the importance they attached to the different features? In order to do this, the percentage rating each feature extremely or very important has been plotted alongside the proportion saying they expected these features to some or a great extent. Figure 2.4 presents these findings for final year students and PRHOs. It is clear that on a number of features there were large discrepancies between what has been identified as important to respondents and what they expected to experience in their career as a doctor. The discrepancies on these features may be used to identify potential sources of dissatisfaction.

Features which showed particularly large discrepancies between importance and expectation were:

- Balance between work and home life
- Having control over your work

Figure 2.4: Importance and expectation compared: PRHO and final year medical students



Source: Medical Career Advice and Guidance Survey, 2001

- Feeling valued
- Working in pleasant physical surroundings

On the other hand, there were a number of features which respondents had high expectations of experiencing and others which were of less importance to respondents that they also expected to experience to some degree.

Table 2.2 summarises the data on *importance* and *expectation* of the features. It is presented in order of importance of the features to PRHOs and final year students as a whole. The table shows the following for male and female respondents:

- the *percentage* who indicated a particular feature as amongst their three most important, and the *ranking* of that feature for these respondents (in brackets)
- the proportion of respondents who indicated that feature was important to them (*ie* extremely or very important)
- the proportion of those who indicated that they expect to experience a feature to some extent or to a great extent.

This allows comparison of the replies by gender of respondent. It confirms the importance of the top four features that emerged from the analysis as well as identifying the important features which respondents anticipated experiencing to only a little extent.

Male respondents from these two groups were generally less positive about their expectations. In addition, to the features listed above, other features with a large discrepancy for male respondents were:

- Working in a friendly atmosphere
- Job satisfaction

For female respondents, opportunities for flexible working was the one additional feature for which they reported a large discrepancy between the importance they attached to it and their expectation of experiencing it.

The table also highlights the anomaly that good financial rewards was rated among the top three features in terms of importance by 23% of male respondents, although only 58% rated it very or extremely important.

2.6 Importance and experience compared: doctors in training

The comparison of importance and experience for doctors in training (*ie* respondents in training grades: SHO, GP Reg, SpR, Clinical Research Fellows) is shown in Figure 2.5. This identifies eight features where there was a large discrepancy between the importance and experience ratings. The largest differences were found on the following features:

- Having control over your work
- Balance between work and home life
- Feeling valued

Table 2.2: Importance and expectation of key features PRHOs and final year students

	Final year/PRHO males			Final year/PRHO females		
Feature	**Top 3 % (Rank)**	**Import-ance %**	**Expect-ation %**	**Top 3 % (Rank)**	**Import-ance %**	**Expect-ation %**
Job satisfaction	49 **(1)**	97	73	56 **(2)**	97	79
Working in a friendly atmosphere	23 **(3=)**	95	68	22 **(4)**	96	77
Doing a worthwhile job	21 **(5)**	95	85	27 **(3)**	95	87
Balance between work and home life	45 **(2)**	90	37	68 **(1)**	96	49
Opportunities to train and develop	14	92	78	16 **(5)**	92	85
Using your skills and qualifications	11	87	86	11	91	90
Feeling valued	15	86	51	14	91	64
Good job security	11	85	92	10	87	88
Having control over your work	5	84	42	3	82	44
Being respected at work	9	76	70	7	86	76
Doing challenging work	17	87	88	12	77	91
Varied work	10	82	75	9	79	80
Developing specialist skills	7	76	84	3	68	86
Good career prospects	20	78	88	11	64	93
Working in pleasant physical surroundings	3	69	34	2	64	42
Opportunities for promotion	5	71	82	3	52	82
Opportunities for flexible working	2	36	31	11	67	42
Good financial rewards	23 **(3=)**	58	67	12	44	71
Total cases		*215*			*349*	

Source: Medical Career Advice and Guidance Survey, 2001

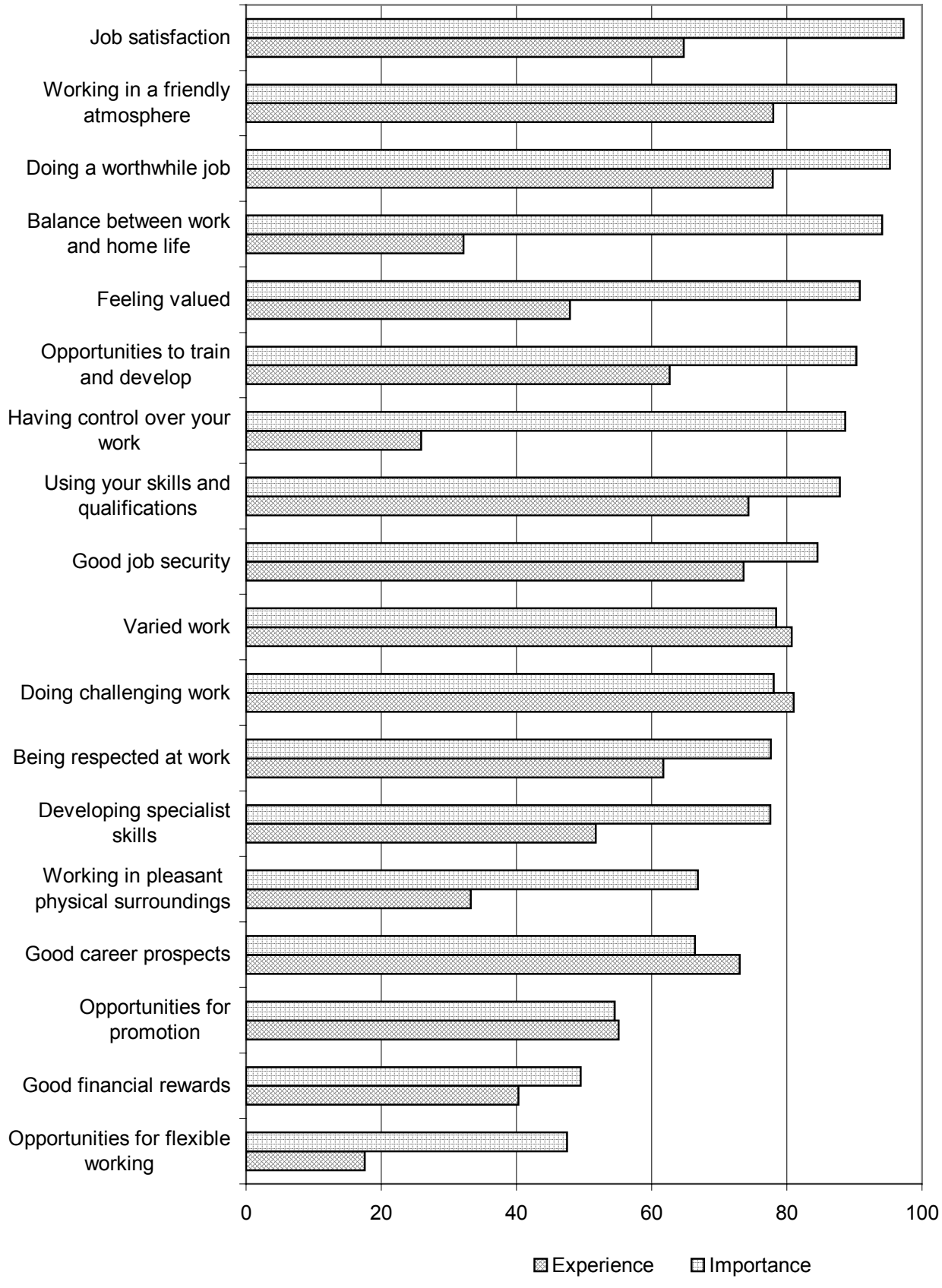
- Working in pleasant physical surroundings
- Job satisfaction
- Opportunities for flexible working
- Opportunities to train and develop
- Developing specialist skills

Female respondents were much more dissatisfied than male respondents about opportunities for flexible working, whereas male respondents were more dissatisfied about working in pleasant physical surroundings and developing specialist skills.

On the other hand, there were features where experience appeared to match the importance attached to it. These features included: varied work, doing challenging work, good career prospects and opportunities for promotion.

Additional analysis was also carried out for respondents in the SHO grade to compare the replies by the length of time that respondents had been in the grade. No significant differences were found in either the importance they attached to the features or their experience of them.

Figure 2.5: Importance and experience compared: doctors in training



Source: Medical Career Advice and Guidance Survey, 2001

Overseas male doctors were particularly dissatisfied (see Appendix Figure 2). In addition to the features already identified, they were also dissatisfied about the following features:

- Good job security
- Opportunities for promotion
- Doing a worthwhile job
- Using your skills and qualifications
- Good financial rewards

However, overseas doctors were more positive than UK doctors about their experience of feeling valued, being respected at work and working in pleasant physical surroundings.

Table 2.3 summarises the data on importance and experience of the features for doctors in training broken down by gender and nationality. It is presented in order of importance of the features to respondents as a whole in the same format as Table 2.2. This allows comparison of the replies by gender and nationality of respondent. It confirms the importance of the top four features that emerged from the analysis but also highlights differences in the pattern of replies for some groups of respondents. It also identifies features that were important to respondents but which they experienced to only a little extent.

For UK male doctors in training, this highlights the greater importance they attach to good financial rewards and their lack of experience of them. This is similar to the pattern of replies from male final year students and PRHOs (see Table 2.2). It also confirms the number of areas where overseas doctors' experience differed from that of their UK counterparts. Unfortunately, there were too few overseas respondents among the final year medical students and PRHOs to permit the equivalent analysis.

2.6.1 Expectation and experience compared

These analyses can also be used to highlight differences between expectations and experiences. In general, the picture that emerges is a close correlation between expectations and experiences but that expectations were more positive than actual experiences so far of working as a doctor. Areas showing the largest discrepancy, that is where expectations were most optimistic were:

- Developing specialist skills
- Good financial rewards
- Opportunities for promotion
- Opportunities for flexible working
- Opportunities to train and develop

These findings suggest that PRHOs and final year medical students were broadly aware of the strengths and weaknesses of what it is like to work as a doctor. However, the fact that expectations were more positive than the experiences they are likely to have, suggest that the transition to

Table 2.3: Importance and experience of key features: doctors in training

	UK Male			UK Female			Overseas Male			Overseas Female		
Feature	**Top 3 % (Rank)**	**Import-ance %**	**With Exp. %**	**Top 3 % (Rank)**	**Import-ance %**	**With Exp. %**	**Top 3 % (Rank)**	**Import-ance %**	**With Exp. %**	**Top 3 % (Rank)**	**Import-ance %**	**With Exp. %**
Job satisfaction	52 **(2)**	96	63	49 **(2)**	98	68	42 **(1)**	99	59	45 **(2)**	96	66
Working in a friendly atmosphere	19 **(4=)**	95	72	27 **(3)**	97	82	20	96	78	19 **(4=)**	96	82
Doing a worthwhile job	18	95	79	25 **(4)**	96	80	14	96	70	10	95	78
Balance between work and home life	56 **(1)**	94	28	62 **(1)**	97	34	30 **(3=)**	91	34	53 **(1)**	90	36
Feeling valued	16	86	41	24 **(5)**	93	48	11	95	57	19 **(4=)**	92	60
Opportunities to train and develop	15	89	63	17	90	64	30 **(3=)**	93	54	32 **(3)**	91	66
Having control over your work	7	87	25	6	89	23	4	91	32	8	90	32
Using your skills and qualifications	10	87	71	8	87	78	12	93	67	9	88	79
Good job security	11	84	76	9	82	83	20	91	47	19 **(4=)**	87	62
Varied work	8	82	79	8	81	87	4	66	66	4	71	80
Doing challenging work	19 **(4=)**	81	81	12	76	86	8	82	69	9	73	77
Being respected at work	7	72	57	8	79	61	10	84	66	8	84	75
Developing specialist skills	5	83	57	5	71	52	13	89	45	11	73	45
Working in pleasant physical surroundings	3	71	27	2	59	31	4	79	44	5	73	45
Good career prospects	16	71	72	8	58	77	33 **(2)**	85	65	19 **(4=)**	66	69
Opportunities for promotion	1	64	65	0	44	55	7	72	41	4	51	44
Good financial rewards	30 **(3)**	58	36	11	39	42	22 **(5)**	66	41	13	52	45
Opportunities for flexible working	1	24	12	15	63	20	3	43	16	10	67	30

Source: Medical Career Advice and Guidance Survey, 2001

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working as a doctor may not be entirely smooth and, in particular, that they may be dissatisfied with a number of aspects of their early career experiences.

2.7 Summary

This chapter of the report has sought to explore what motivates survey respondents. These are likely to be powerful forces in shaping the initial career choices of respondents and in influencing the areas in which they decide to work.

In particular, it has shown the importance of achieving work/life balance as a feature that is important to doctors in making career choices at this stage of their careers and their low expectation and experience of this. This is linked to low expectation and experience of having control of their work.

Survey respondents also did not expect or experience working in pleasant physical surroundings, or being valued in their work. Many doctors in training also reported not experiencing the opportunities to train and develop, or to develop specialist skills. Both of these were features that PRHOs and final year students expected to experience.

For female respondents, the analysis has also indicated the importance of flexible work opportunities and their low expectation of experiencing them. In general, this analysis has demonstrated important differences in terms of what motivates male and female doctors, which are in turn likely to lead to differing patterns of career outcomes.

Overseas doctors tended to be much less satisfied with a number of aspects of their experience of working than UK doctors, although there were also a few features where they report more positive experiences. However, on balance this analysis indicated the less than satisfactory nature of their work experience in many key respects. These were likely to have significant career consequences and suggest that overseas doctors may have some very specific career concerns that need to be addressed.

In general, it is less surprising that overseas doctors are driven by somewhat different motivations than UK doctors. They tend to be older than their UK counterparts and might well be expected to have more focussed training requirements because of their career situation.

While the findings on importance versus expectation, and importance versus experience need careful interpretation because the rating scales used differ, it is reasonable to assume that, where respondents had a lower expectation or reported less experience of features they had rated as extremely or very important, there may be some degree of dissatisfaction or disappointment. Of course, it is possible that some features where respondents reported high levels of expectation or experience have been rated as of less importance as a result. Conversely, having to spend a great deal of time doing something that you do not think is of much importance could also be a cause for dissatisfaction.

Finally, the comparison between the expectations of medical students and PRHOs as against the experience of doctors in training suggests

that, in reality, many of the key features of working life do not live up to expectations.

Several key themes have emerged from this analysis. A major concern is the lack of control of one's work and the inability to achieve work/life balance. There is also a perception of little recognition for work done, and a measure of concern about career prospects. However, respondents were more positive about the intrinsic interest and challenge of their work.

From the point of view of career guidance interventions, these findings suggest male and female doctors will be motivated to pursue their careers in different ways and that the structure of training opportunities may need to accommodate these different expectations.

In the next chapter, the current career situation of respondents is explored. It links the discussion of doctors' motivation that has been examined in this chapter with their career choices which are reviewed in Chapter 4.

3. The current career situation

Understanding the current career situation of respondents to the survey is an important first step in determining their career advice and guidance needs. Several sections of the survey questionnaire contained questions that were relevant to understanding the situation in which individual respondents find themselves.

In this chapter, various aspects of the decision-making process are explored. This includes reviewing the current state of respondents' career decision-making and their satisfaction with it, the timing of their career choice and the proportion of respondents who had already rejected areas of medicine at each career stage.

3.1 Current career situation

In order to explore the current state of their career decision-making, respondents were asked to rate ten statements in terms of the extent to which they described their present situation. These statements were designed to measure respondents' career decidedness and their satisfaction and confidence with their career choices.

The overall pattern of replies to these statements is shown in Figure 3.1. This shows that 43% of respondents agreed to a great extent that they knew the area of medicine in which they wanted to work and what they needed to do to get there, and 33% that their experience so far made them feel that they had made the right decisions about their medical careers.

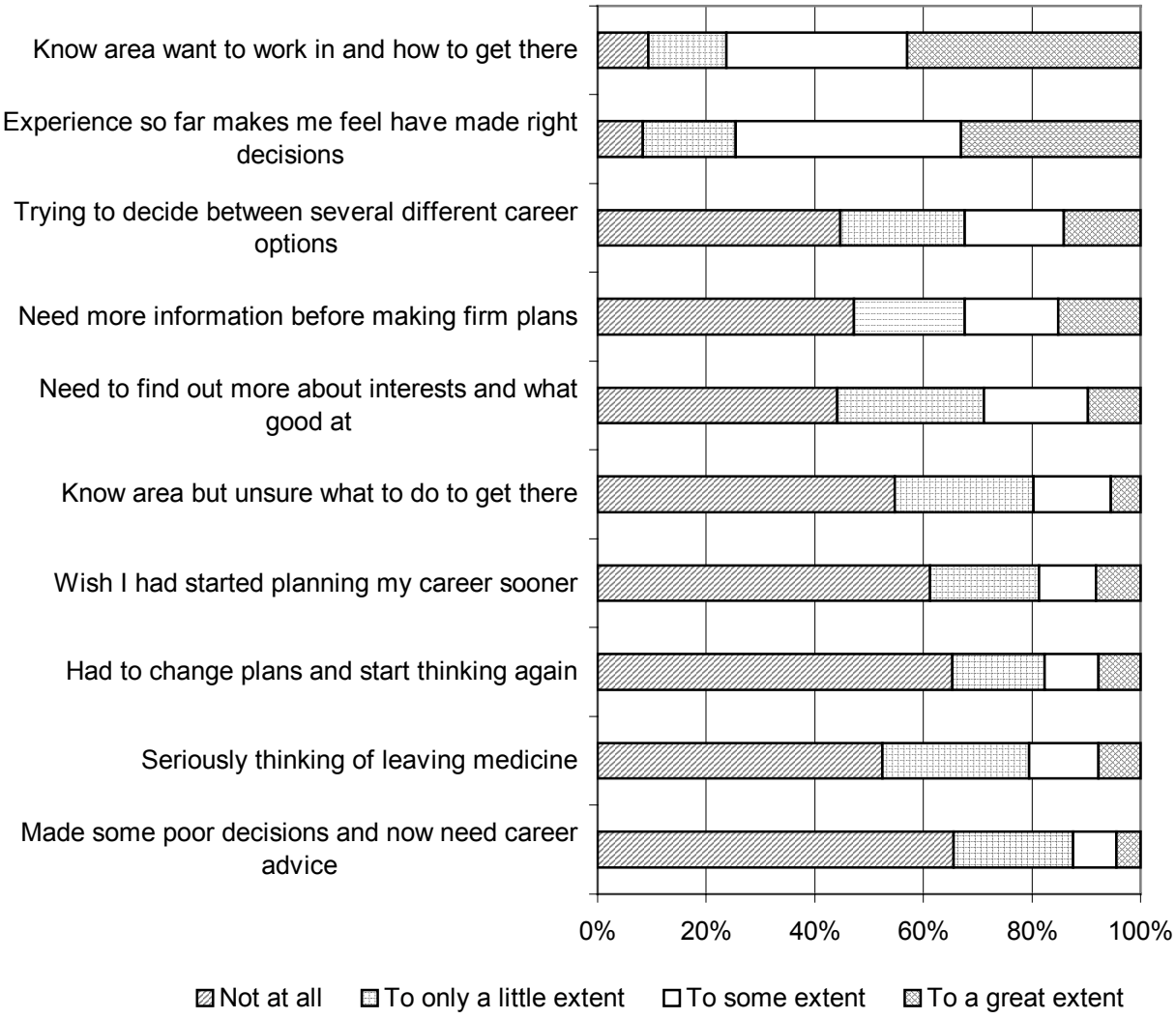
However, 32% of respondents reported that they were trying to decide between several different career options to some or a great extent and 32% that they needed more information about possible medical careers before they made any firm plans.

The survey also found that 19% of respondents wished to some or a great extent that they had started planning their career sooner and that 18% had had to change their career plans and start thinking again about the area of medicine in which to work.

Eight percent of respondents agreed to a great extent that they were seriously thinking about leaving medicine. The proportion ranged from 4% of final year medical students to 11% of the 1997/98 cohort.

Excluding final year students and PRHOs, 11% of UK doctors in training were seriously thinking about leaving medicine to a great extent

Figure 3.1: Current career situation: all respondents[1]



Source: Medical Career Advice and Guidance Survey, 2001

compared to 4% of overseas doctors. There was no difference by ethnicity or gender in the proportion of UK doctors seriously thinking of leaving medicine.

3.1.1 Reasons for leaving medicine

Respondents were also asked in an open question if they were thinking of leaving medicine to give their reasons. Table 3.1 summarises a sample of the replies given by those respondents who said that they were seriously thinking of leaving medicine to a great extent.

[1] Note that the wording of statements is abbreviated in figures throughout the report.

Table 3.1: Reasons for leaving medicine

Final year medical students
Long hours, insufficient time to have proper breaks during shifts, lack of teamwork and low morale in hospital ward teams, low pay for the amount of work done, lack of direction in post-graduate training, lack of understanding from consultants if junior doctors want to have outside interests/ hobbies from medicine.
- Unable to provide care I had hoped to provide to patients; - ashamed of current NHS; - comparatively poorly paid; - long hours – antisocial – lots of revision in your personal time for extremely competitive jobs; - lack of respect from public; - nurses being horrible.
- Quality of life – effect on own mental / physical well-being – imbalance between home and work; - Everyone in NHS is stressed and working too hard; - Ridiculously competitive for a long time; - Public expectations / media portrayal of profession makes you disillusioned.
PRHOs
(1) Poor conditions – difficult to give an appropriate standard of care in the NHS in UK. *(2) Dreadful working conditions – I used to have a valued & interesting social life – now I sleep between work.* *(3) Poor pay. £20,000 for a new graduate is shocking compared to other graduates or even junior managers in Tescos!* *(4) Horrible accommodation and dirty dilapidated hospitals.*
I feel all my learning has been swamped under vast amounts of paperwork and medico-legal covering of arses by nurses i.e. "doctor called". The hours are too long and anti-social for the financial rewards. I am a PA/Secretary.
• Too many hours; • Poor pay, conditions, morale and lack of worth at work; • Difficulty finding work if your partner needs work in the same area.
Doctors
Portrayal of medicine by politicians and media is often unrealistic, naïve and prejudiced and distorts practice. Medics are outrageously undervalued, in relative terms; the extent to which medical careers offer a worthwhile occupation is declining to the extent that this reward is insufficient given the above.
Increasingly litigious climate, long hours, not valued, no respect, greater patient expectations, poor pay, minimal training – pure service commitment. College tutor says she "hates trainees".
Hours/litigation/lack facilities to treat patients, inability to do job trained for as other jobs -> clerical/ portering etc necessary. Most Important: in current climate unable to do best for patient -> second class service – not good enough
Because good doctors are no longer required it is better to have research and papers etc. rather than able to do the job. No encouragement for furthering your study while at work. Flexible trainees are seen as second class citizens.
We are undervalued and underpaid. The media, Government and some public are actively hostile. Long hours and antisocial hours disrupt life outside. I cannot afford to live near to where I work. Jobs and training are difficult to get. Being unable to settle in an area, moving every 6 months and living in sub-standard hospital accommodation becomes very wearing as I approach 30.

Source: Medical Career Advice and Guidance Survey, 2001

The picture painted by these replies is broadly consistent with the rest of the survey findings. The one additional point that occurs frequently is related to perceptions of hostility from the media and the Government and to a lesser extent the public.

3.1.2 Decidedness and satisfaction with choice

The replies to the attitude statements were analysed in more detail. This showed that on four of the ten statements, there were clear trends by year group. The proportion who said they knew to a great extent the area

of medicine in which they want to work and what they needed to do to get there increased from 13% of final year students to 61% of the 1995/96 year group. As most of the 1995/96 year group were either SpRs, GP Registrars, Clinical Research Fellows or had completed their training and only one in six were still SHOs, this finding is not surprising.

There were similar trends in the reverse direction for the statements, 'I am trying to decide between several different career options', 'I need more information about possible medical careers before I make any firm plans', and 'I need to find out more about what interests me and what I might be good at'. This suggested that these statements measured the same underlying theme.

For this reason, it was decided to explore whether the ten statements could be grouped into scales on the basis of factor analysis of the replies. Results of the factor analysis indicated that nine of the statements could be grouped reliably into two scales. The first was labelled 'Decidedness' and was made up of the following four items:

1. I know the area of medicine in which I want to work and what I need to do to get there.
2. I am trying to decide between several different career options *(scoring reversed)*.
3. I need more information about possible medical careers before I make any firm plans *(scoring reversed)*.
4. I need to find out more about what interests me and what I might be good at *(scoring reversed)*.

The second scale was labelled 'Satisfaction with career decision-making' and was made up of the following five items:

1. I have had to change my career plans and start thinking again about the area of medicine in which I will work *(scoring reversed)*.
2. My experience so far makes me feel that I have made the right decisions about my medical career.
3. I think I may have made some poor decisions and now I need some career advice *(scoring reversed)*.
4. I wish I had started planning my career sooner *(scoring reversed)*.
5. I am seriously thinking about leaving medicine *(scoring reversed)*.

The two scales are correlated (Pearson $r=0.42$, $p<.001$). It is not surprising that being decided was related to being satisfied with career decision-making. Note that one statement, 'I know the area of medicine in which I want to work but I am unsure what I should be doing to get there', did not load on either scale.[1]

Scale scores were calculated by adding together the scores from the individual items that made up the scale and then dividing by the number of items in the scale. This means that all scales ranged from 1 which means rating 'not at all' to every item in the scale to 4 which means rating 'to a great extent' on every item in the scale.

[1] Full technical details of the scales are given in Appendix 5.

The direction of wording of the statements meant that a low score indicated lack of decidedness or dissatisfaction with career decision-making.

Twenty percent of respondents had a score of 2 or less on the decidedness scale suggesting they were undecided about their career choice in medicine, while 56% of respondents scored more than 3 on the scale indicating they had decided on the area of medicine in which they want to work. Scores on decidedness increased with experience, with final year students having the lowest score and 1995/96 cohort respondents the highest score, which is evidence for the validity of the scale.

Six percent of respondents had a score of 2 or lower on the satisfaction with career decision-making scale which is indicative of having changed career plans, needing career advice or thinking seriously of leaving medicine, while 70% of respondents scored more than 3 on the scale indicating they were broadly satisfied with their career decision-making. Scores on this scale did not vary appreciably across year groups suggesting that only a small minority of all respondents were very dissatisfied with their present situation.

When scale scores were divided at the mid-point, 26% of all respondents scored below the mid-point on the decidedness scale and 12% on the satisfaction with career decision-making scale. By cross-classifying respondents using the mid-point as the cut-off, it is possible to identify four groups of respondents:

1. Decided and satisfied with their career decision-making: 69% of respondents
2. Undecided and satisfied: 19% of respondents
3. Decided and not satisfied: 6% of respondents
4. Undecided and not satisfied: 6% of respondents

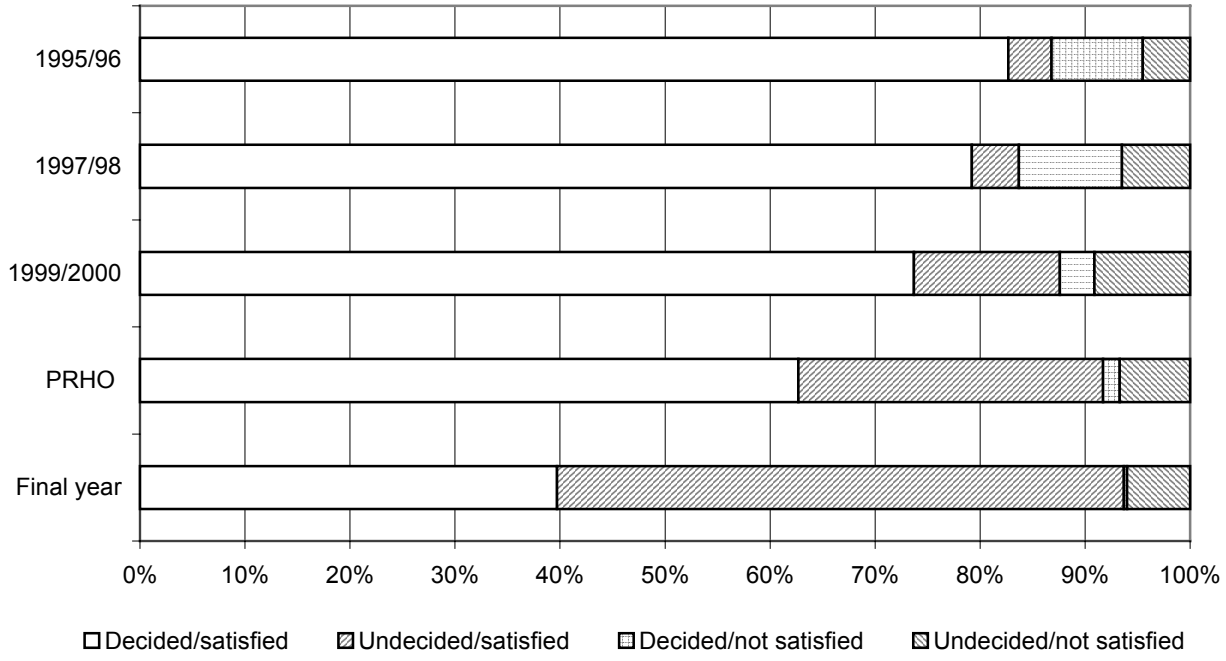
Figure 3.2 presents a breakdown of the proportion of respondents falling into each of these categories by year group.

It was not surprising that the proportion of decided and satisfied respondents increased by year group, nor that the over half of final year students were undecided but satisfied. The proportion of respondents in this category falls off quickly by year group. This suggests, that over time, the majority of respondents had made career choices and were satisfied with them.

Of greater concern is the fact that the proportion of respondents who were not satisfied with their career decision-making increased from 6% of final year students to 16% of the 1997/98 cohort and reduced only slightly to 13% of the 1995/96 cohort.

The same pattern existed for both UK and overseas doctors. This trend was not affected by gender, even though female final year students and PRHOs were slightly more likely to fall into the undecided category than their male peers.

Figure 3.2: Career situation by year



Source: Medical Career Advice and Guidance Survey, 2001

Respondents who are decided but not satisfied with their career decision-making may be those who feel they have had to make a choice but are not satisfied with it.

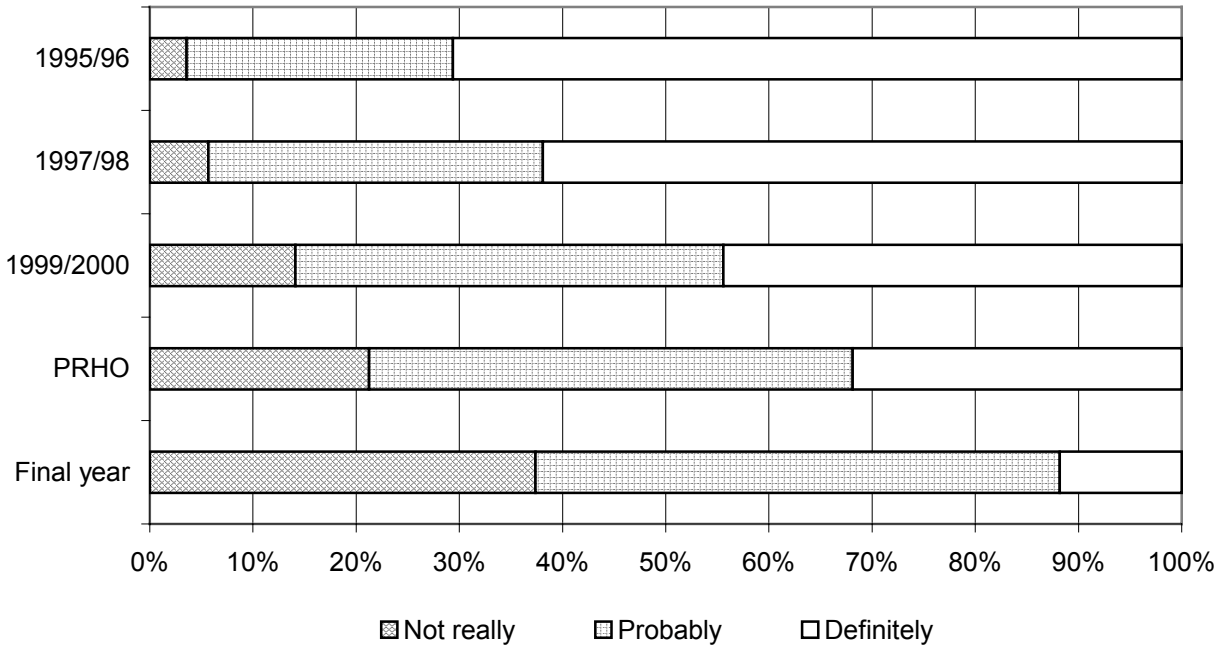
However, respondents from the two oldest cohorts who were still SHOs were more likely to be dissatisfied than respondents who had progressed to become GP Registrars, Specialist Registrars or Clinical Research Fellows. Nearly a quarter of this group (24%) were dissatisfied with their career decision-making compared to 10% of those who had become GP or Specialists Registrars or Clinical Research Fellows. 17% of these SHOs were still undecided and 14% were decided but not satisfied with their career decision-making.

UK respondents from ethnic minorities were also less satisfied with their current career situation than other UK respondents ($t=2.53$, $p<.05$, $df=1346$), with 16% of all UK ethnic minority respondents scoring below the mid-point on this scale indicating dissatisfaction with their career decision-making compared to 11% of other UK respondents. More UK ethnic minority respondents were not satisfied with their career decision-making than other UK respondents in all year groups except the 1999/2000 cohort. 17% of UK PRHOs from ethnic minorities and 14% of UK final year medical students were not satisfied with their career decision-making compared to 9% of other UK respondents at these career stages. There was no difference in decidedness by ethnic background among UK respondents.

3.2 Timing of Career Choice

Respondents were asked to rate on a three point scale of not really, probably and definitely, whether they had made up their mind about the area of medicine in which they want to work. Not surprisingly, the proportion of respondents who said definitely increased from 12% of final year students to 70% of the 1995/96 cohort (see Figure 3.3).

Figure 3.3: Certainty of career choice



Source: Medical Career Advice and Guidance Survey, 2001

In their early years, it appears that men commit to a career choice earlier than women, as Table 3.2 indicates consistently fewer men than women reported that they had not really decided on the area in which they want to work and more men than women reported that they had.

3.2.1 Nationality

Overseas doctors were more likely than UK doctors to be definite about the area in which they wish to work. In particular, 63% of overseas doctors who first registered in the UK in 1999/2000 reported that they had definitely made up their mind about the area of medicine in which they wanted to work compared to 39% of UK doctors. However, there was no difference in the older cohorts between UK and overseas doctors.

This suggests that most overseas doctors arrived in the UK with clear intentions abut the area of medicine in which they wanted to work. It may also reflect the fact that they were about two years older than on average than their UK counterparts and presumably have more experience of medicine.

Table 3.2: Percentage who have made their mind up about area in which to work[1]

Year	Gender	Not really %	Definitely %
Final year	Male	30	16
	Female	42	9
PRHO	Male	15	37
	Female	25	28
1999/2000	Male	11	50
	Female	17	40
1997/98	Male	6	63
	Female	5	62
1995/96	Male	2	73
	Female	5	69

Source: Medical Career Advice and Guidance Survey, 2001

3.2.2 Grade

It is less surprising that doctors who had progressed from the SHO grade to become Specialist Registrars, GP Registrars or Clinical Research Fellows were more likely to have made their mind up about the area of medicine in which they want to work. Table 3.3 shows the proportion of respondents from the 1995/96 and 1997/98 cohorts who had definitely made their mind up about the area of medicine in which they want to work.

Table 3.3: Percentage by grade who have made their mind up about area of work

Grade	Definitely %
SHO	51
GP Registrar	67
Specialist Registrar	72
Clinical Research Fellow	74

Source: Medical Career Advice and Guidance Survey, 2001

It is interesting that between a quarter and a third of those who had progressed from the SHO grade had still not made their mind up definitely about the area of medicine in which they want to work, while nearly half those who were still SHOs had not definitely made their mind up.

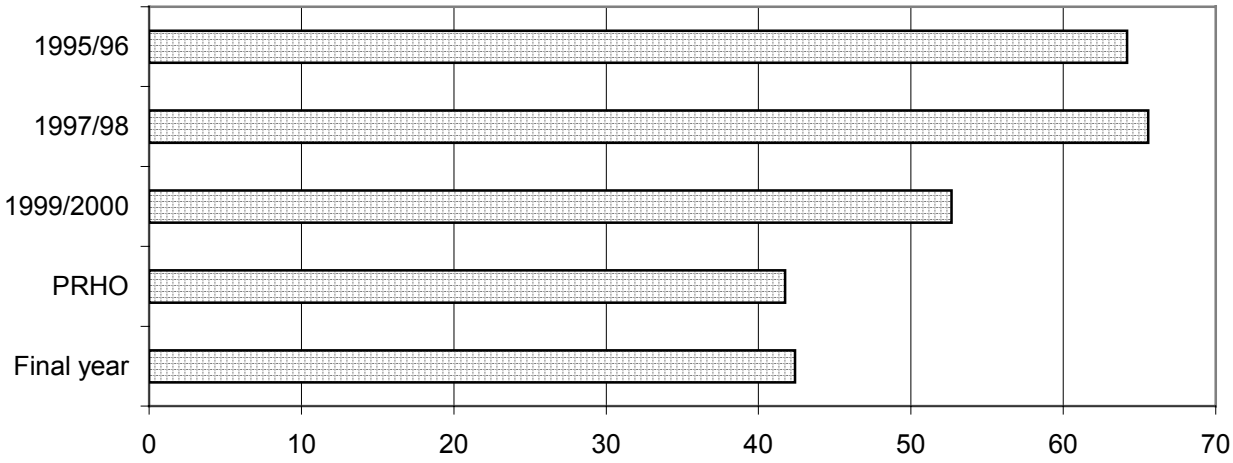
Other factors did not seem to influence whether respondents had chosen a work area. For example, whether SHOs had passed exams or not, did not influence definiteness of choice, and even how long they had been in the SHO grade had only a weak effect.

[1] Note that respondents who responded 'probably' have been omitted from this table so rows do not sum to 100%.

3.3 Areas rejected

Over half (54%) of all respondents reported that there was an area of medicine which they had seriously considered and had now decided not to pursue. Not surprisingly, there was a clear trend for the proportion who had decided not to pursue an area of medicine to increase across the year groups as Figure 3.4 indicates.

Figure 3.4: Percentage who have rejected an area of medicine



Source: Medical Career Advice and Guidance Survey, 2001

However, it is worth noting that 42% of final year medical students and PRHOs had already decided not to pursue an area, while nearly two-thirds of the 1995/96 and 1997/98 cohorts were in this situation.

Overseas doctors were more likely than UK doctors to report that they were not now pursuing an area with 68% of overseas doctors in the SHO grade and above compared with 60% of UK doctors in the same grades reporting that there was an area of medicine that they had decided not to pursue (Chisquare= 5.5, $p<.05$, df=1).

UK respondents from ethnic minorities were also more likely than their white colleagues to report that they were not now pursuing an area. 59% of all UK respondents from ethnic minorities reported that they were not now pursuing an area of medicine that they had seriously considered compared to 52% of other UK respondents (Chisquare= 4.0, $p<.05$, df=1).

Not being satisfied with your current career situation was strongly related to having decided not to pursue an area of medicine. Respondents who had decided not to pursue an area had lower scores indicating less satisfaction on this scale. Overall, 76% of the not satisfied group reported that they had decided not to pursue an area of medicine compared to 52% of those who were satisfied.

Respondents who reported that they had probably or definitely decided on an area of medicine were more likely to report that there was an area they had decided not to pursue than those who had not really made up their mind. Fifty-seven percent of those who had probably or definitely made up their mind had decided not to pursue an area of medicine compared to 47% of those who had not really decided on an area.

This finding indicates how career choice consists of ruling options out as well as ruling them in. It also indicates how both these processes go hand in hand. The areas of medicine that respondents had rejected are explored in the next chapter as part of the analysis of specialty choice.

3.4 Summary

This chapter of the report has sought to understand survey respondents' views about their current career situation in terms of the decision-making process. It has also examined whether respondents had rejected areas of medicine and the timing of their career choice.

It has shown how the proportion of respondents who had made a definite choice about the area of medicine they wanted to work increased across the year groups. However, it has also found that in the early years, women were less likely to report that they had made a definite career choice. It also found that nearly half the respondents from the 1995/96 and 1997/98 cohorts who were still SHOs had not definitely decided on the area of medicine to work in.

More detailed analysis identified that a substantial proportion of respondents were not satisfied with their current career situation and that the proportion tended to increase over time such that 16% of the 1997/908 cohort fell into the not satisfied group as did 13% of the 1995/96 cohort. Closely linked to this is the finding that about one in ten of UK doctors in training were seriously thinking about leaving medicine.

Respondents who were not satisfied with their career decision-making were more likely to have rejected an area of medicine and to be from minority ethnic backgrounds. Overseas doctors were also more likely to report that they had rejected an area of medicine than UK doctors.

The analysis also indicated that more final year students and PRHOs had rejected areas of medicine than had definitely decided on the area they wanted to pursue indicating that many early career decisions are about ruling areas out rather than deciding on a specific area in which to work. The next chapter of the report examines respondents' career choices with regard to specialty. It describes the changing pattern of choices over time and also looks at the reasons for particular specialty choices.

4. Choosing a specialty

In this chapter, the career choices respondents have made are explored. The questionnaire collected information about the current work area in which doctors in training were working and this is examined first. The questionnaire also included a section that asked about the areas of medicine that respondents were considering and their reasons for these choices. Information was also collected on any constraints on their choices as well as details of areas of medicine that they had seriously considered but had now decided not to pursue.

4.1 Current area of work

Respondents in the three post-registration year groups were asked to indicate in which specialty they were currently working. The responses were coded into 65 categories, which have been further collapsed to form 16 broad specialty groups[1]. The distribution of respondents by specialty is shown in Table 4.1. The fact that only 1% of the 1999/2000 year group were working in General Practice (although a quarter were on the GP Vocational Training Scheme) compared to 18% of respondents in the 1997/98 and 1995/96 year groups meant that, in general, the proportion of respondents working in other areas tended to be reduced in the two older year groups.

More detailed analysis of the replies indicated that:

- A quarter of the 1999/2000 year group were SHOs on the GP vocational training scheme.
- 11% of the 1999/2000 year group were working in obstetrics and gynaecology compared to 5% of the other two year groups.
- 25% of male doctors in training were currently working in surgery compared to 6% of female doctors in training and 17% of female doctors in training were working in General Practice compared to 8% of male doctors in training.
- 31% of those working in psychiatry were overseas doctors as were 32% of those working in accident and emergency medicine.
- 17% of UK doctors in training were from ethnic minorities but they made up 10% of those working in paediatrics and 23% of those working in psychiatry.

[1] See Appendix 6 for a list of how specialties have been grouped together.

Table 4.1: Responses by area of work: doctors in training

Specialty area	1999/2000 %	1997/98 %	1995/96 %	All respondents %
Accident & Emergency	7	5	4	5
Anaesthetics	7	9	7	8
General Practice	1	19	17	13
General Medicine	32	23	26	26
Geriatrics	6	3	3	4
Obstetrics & Gynaecology	11	5	6	7
Ophthalmology	1	2	2	2
Paediatrics	13	8	10	10
Pathology (incl Haematology)	2	3	2	2
Psychiatry	10	7	8	8
Public Health	1	<1	1	1
Radiology	0	1	1	1
Surgery	16	14	14	15
Family planning	0	0	1	<1
Research	0	1	1	1
Other medical area	0	1	<1	<1
Other	1	1	1	1
Leave medicine/NHS	0	<1	<1	<1
None listed	2	6	8	6
Total cases	*343*	*460*	*340*	*1172*

Source: Medical Career Advice and Guidance Survey, 2001

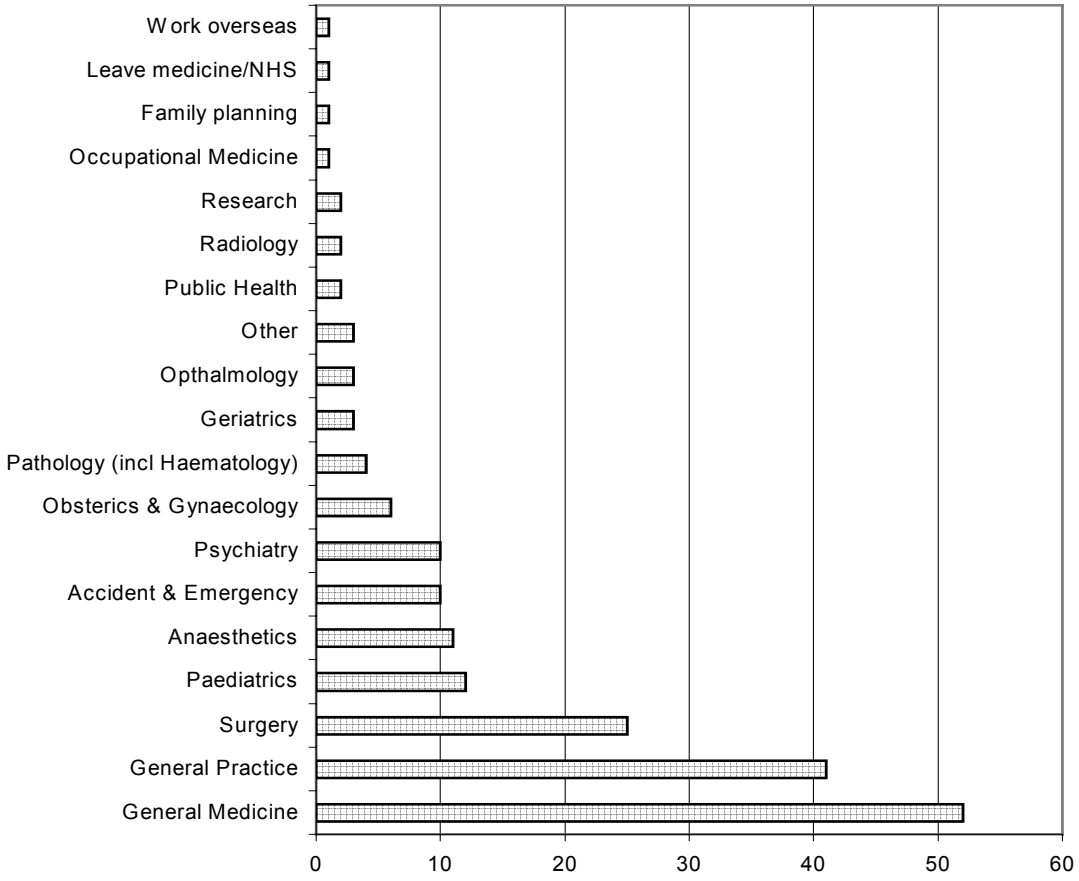
4.2 Area of medicine currently chosen

All respondents were asked in which areas of medicine they were considering working. Respondents could give up to three choices, and were asked to list their chosen areas in order of preference. Responses were given by 1,722 individuals and Figure 4.1 shows the proportion of respondents considering each area (as either first, second or third choice).

Over half were considering an area within general medicine, two-fifths were considering general practice and just under a quarter surgery.

To get a better sense of how choice in specialty changes during the early stages of doctors' careers, the proportion of each grade that cited each specialty as their first choice is shown in Figure 4.2.

Figure 4.1: Percentage considering each specialty (up to three choices)



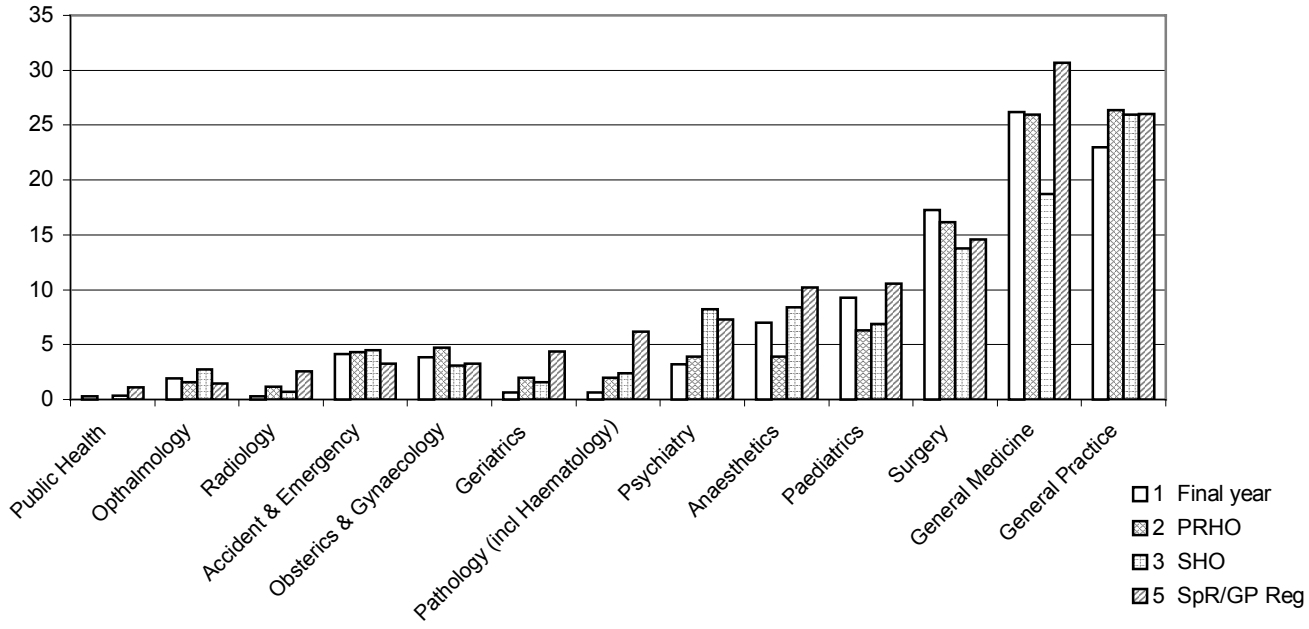
Source: Medical Career Advice and Guidance Survey, 2001

The pattern from left to right illustrates the relative popularity of specialties. Variation between the size of bars in each specialty, indicates how the popularity of that specialty changes. For example, very few final year medical students were considering geriatrics or pathology, but the proportion picking these specialties increased steadily as their careers' progress. Similarly, only 3% of final year students were considering psychiatry as their first choice, whilst amongst the SHOs 8% were considering psychiatry. Conversely, the proportions choosing surgery as their first choice decreased between medical school and SHO level.

There also appeared to be differences in the choices of specialty of SHOs according to the time they had been at that grade. Those who had been at SHO grade for two years or less were more likely to give General Practice as their preferred choice (28% compared with 12% of other SHOs). Meanwhile SHOs of three years or longer were more likely to be considering psychiatry (10% compared with 5% of the 2 years and under group).

Whilst the choices being considered varied to some extent by grade, gender was the most influential variable affecting choice of specialty. Table 4.2 highlights the main differences for the larger specialties, showing that men were much more likely to be considering surgery, and to a lesser extent General Medicine, whilst higher proportions of women were considering General Practice, Obstetrics and Gynaecology, and Paediatrics.

Figure 4.2: First choice of specialty by career stage



Source: Medical Career Advice and Guidance Survey, 2001

Table 4.2 Specialties considered by gender (%ages refer to the selected areas only)

	Men %	Women %	All %
Accident and Emergency	9	10	10
Anaesthetics	12	11	11
General Practice	30	49	41
General Medicine	55	50	52
Obstetrics and Gynaecology	3	9	6
Ophthalmology	4	2	3
Paediatrics	7	15	12
Psychiatry	9	9	9
Surgery	39	14	25
Research	3	1	2
Total cases	*725*	*979*	*1704*

Source: Medical Career Advice and Guidance Survey, 2001

It is worth noting too that specialty choice varied by nationality. UK (29%) and EEA doctors (36%) were more likely to list General Practice than doctors from other countries (10%). On the other hand, doctors from other countries were more likely to be considering General Medicine and Surgery.

Similar differences were also apparent between single doctors and those living with a partner with lower proportions of single doctors considering

General Practice. Respondents with children were more likely to be considering General Practice and less likely to be considering General Medicine or Surgery. These differences were most marked for female doctors in training with children, over half (54%) of whom were considering General Practice compared to 44% of female doctors in training without dependent children. Female doctors in training with children were also more likely to be considering psychiatry (15% versus 9%) and less likely to be considering General Medicine (25% versus 42%), Accident and Emergency (2% versus 8%) or Surgery (2% versus 7%).

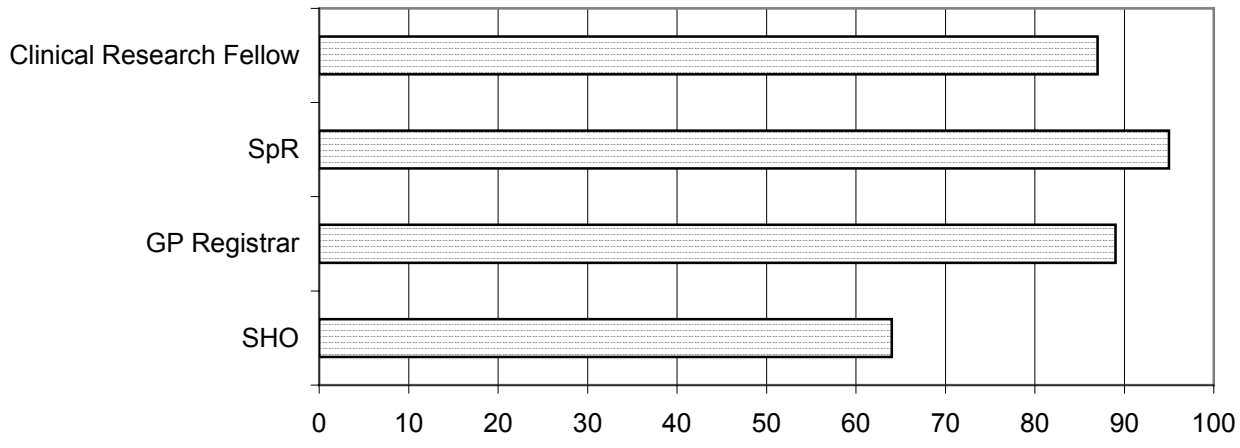
Although stage in career, nationality, and domestic situation all play a part in explaining differences in choices between respondents, gender accounted for most of the variation in specialty choice.

4.2.1 Specialty choice and current work area

70% of doctors were currently working in their first choice area of work with the proportion increasing from 51% of the 1999/2000 year group to 84% of the 1995/96 year group. A further 7% of doctors were currently working in either their second or third choice area of medicine.

Figure 4.3 shows the proportion of doctors in training who were currently working in one of their preferred work areas. The reason some GP Registrars were apparently not working in their preferred area is because a small number of them were not currently working in general practice. In general though, this finding indicates that nearly all respondents once they reached the stage of specialising were working in a preferred area of medicine.

Figure 4.3: Percentage of doctors in training working in a preferred work area



Source: Medical Career Advice and Guidance Survey, 2001

SHOs who had been in the grade longer were more likely to be working in one of their preferred areas (82% compared to 62%). It should be noted that there did not appear to be any differences in the proportion of respondents who were currently working in one of their preferred areas of medicine by nationality, gender or ethnicity.

4.3 Reasons for and constraints on choice of specialty

The fact that specialty choice changed gradually with career stage, suggests that options originally considered were rejected and new areas were considered. Several questions were asked in the survey to explore what factors influence respondents' choice of specialty. Firstly, respondents were asked to describe their reasons for choosing their preferred area of medicine. Secondly they were asked to describe any constraints they felt had influenced their choice of specialty. Finally, they were asked if they had seriously considered any areas of medicine that they had now decided not to pursue and, if so, their reasons for rejecting that choice.

Looking at the main reasons given by doctors for considering different specialties (see Table 4.3), interest/challenge and job satisfaction were the key decision factors, followed by the range of work and need for varied work and enjoyment of specialty. A quarter of respondents also mentioned hours of work and a fifth highlighted domestic factors as a consideration in choosing their specialty.

Again significant differences emerged between groups of doctors. Taking gender first, interest/challenge and job satisfaction were less important factors for women than for men, while hours of work and domestic issues were more important factors for women in selecting specialties (see Table 4.3).

The factors that influenced specialty choice changed over time, with doctors in the more senior grades responding differently to those in earlier career stages. Hours of work and domestic issues seemed to become more important factors further on in career – 38% cited these factors in their final year, while 50% of SHOs cited working hours as an issue. For women specifically, 44% cited hours of work and domestic factors in their final year compared to 62% of female SHOs. Within the SHO grade, those who had been at this grade for two years or less were more likely to refer to domestic/family issues than SHOs who had been in the grade for longer.

Amongst GP registrars, 53% said that hours of work were important to them and 49% said range of work was one of the three reasons they had chosen General Practice. Interest and challenge and the range of work were the key decision factors for Specialist Registrars (71% and 39% respectively).

The reasons given for choosing a specialty varied according to the area chosen as preferred option. Table 4.4 highlights the range of factors influencing choice of the eight most frequently chosen specialties.

Table 4.3 Reasons for choosing preferred area by gender (up to three reasons)

	Men %	Women %	All %
Interest and challenge/job satisfaction	62	55	58
Range of/varied work	29	32	31
Hours of work/working conditions/flexible hours	19	31	26
Enjoyment of specialty	24	26	25
Nature of work/type of care (continuity/patient contact)	17	23	21
Domestic issues (home/family/work balance)	15	23	20
Career development/promotion prospects	12	8	9
Length/flexibility of training	2	5	4
Good quality of training/consultant	3	3	3
Future financial prospects	5	1	3
Teamworking	3	1	2
Personal/location	2	1	2
Other	10	8	9
Total cases	*696*	*960*	*1672*

Source: Medical Career Advice and Guidance Survey, 2001

Table 4.4 Reasons for preferred choice by preferred specialty (percentages)

	A & E %	Anaes %	GP %	GM %	O and G %	Paeds %	Psych %	Surg %	All %
Hours of work	16	27	52	15	7	12	29	6	26
Interest	57	66	30	72	57	69	72	68	58
Range of work	52	34	40	25	24	20	17	27	31
Enjoyment	31	21	17	27	46	46	20	17	27
Prospects	5	15	9	13	7	7	22	14	12
Domestic/family	8	13	36	17	6	12	14	9	20
Competition	2	0	1	1	0	0	0	0	1
Training issues	13	13	6	6	2	5	12	6	7
Nature of care	18	18	26	17	19	26	20	16	21
Other factors	11	12	9	12	7	8	10	7	10
Total cases	*62*	*113*	*466*	*372*	*54*	*114*	*90*	*237*	*1670*

Source: Medical Career Advice and Guidance Survey, 2001

Most notable here is the preponderance of hours of work/home-life balance reasons given by those opting for General Practice. For the other areas, interest in the specialty was the most frequently cited reason from 57% of respondents choosing A & E to more than 70% of those selecting general medicine or psychiatry as the area they most wanted to work in. In contrast less than a third (30%) of those intending to work in General Practice gave this reason.

Looking at those choosing General Practice specifically, whilst there were some differences between men and women in the reasons given, the

most striking finding was that hours of work was a major consideration for both men and women – 46% of men gave this reason and 54% of women.

The issue of specialty choice was also looked at from the opposite perspective, as respondents were asked about the constraints on their choices. Overall, 57% of respondents listed constraints on their career choice with men being less likely to list constraints than women (53% compared to 61%). As one might expect (given the above findings), domestic issues were the most commonly cited constraints for doctors pursuing certain specialties. Nearly a third of all respondents cited issues connected with their domestic situation. In addition, a further 23% mentioned hours of work and lack of flexibility as factors constraining their choice (see Table 4.5).

Again women were more likely to mention these constraints, while men were more likely to mention competition for SpR posts, reflecting the different areas of specialty being considered by male colleagues (Table 4.5).

Table 4.5 Constraints on choice of work area (up to three reasons)

	Men %	**Women** %	**All** %
Domestic (home/family/work balance)	21	38	32
Competition for SpR posts/No SpR posts/No NTNs	38	21	27
Hours of work/working conditions/flexible hours	18	26	23
Personal/location	15	14	14
Workload/stress/pressure	10	11	11
Length/flexibility of training	6	11	9
Nature/type of work (continuity/patient contact)& range of work	5	6	5
Career/development/promotion prospects	5	5	5
Future financial prospects	5	3	4
Equal opportunities	3	4	4
Exams(*eg* difficult to pass)	3	4	3
Poor quality of training/consultant	4	3	3
Other	12	9	10
Total cases	*385*	*598*	*989*

Source: Medical Career Advice and Guidance Survey, 2001

In terms of changes to doctors' views during their early career, there was little change in the proportion citing hours of work between final year, PRHO, SHO, GP Registrar and Specialist Registrar stages. However, doctors at the SHO stage were much more likely to perceive competition for SpR posts as a constraint than PRHOs (37% of SHOs compared with 7% of PRHOs).

Respondents choosing Obstetrics and Gynaecology were more likely to have referred to the level of competition than those choosing other areas (53% cited this as a constraining factor compared with 27% overall). Similarly, larger numbers in paediatrics (44%) and surgery (43%) referred

to competition. Hours of work was given as a constraint by 42% of those opting for psychiatry as their first choice (compared with 23% of all respondents).

4.4 Rejected areas of work

As a result of the considerations outlined above, many doctors highlighted areas of work that they had seriously considered but subsequently rejected. The rejected areas are shown in Table 4.6.

Table 4.6 Areas that have been seriously considered and rejected

	%
General Medicine	30
Surgery	27
Paediatrics	11
Obstetrics & Gynaecology	9
General Practice	5
Psychiatry	4
Anaesthetics	4
Accident & Emergency	3
Geriatrics	2
Ophthalmology	2
Pathology (incl Haematology)	2
Other response	1
Radiology	1
Public Health	<1
Work overseas	<1
Total cases	*940*

Source: Medical Career Advice and Guidance Survey, 2001

General Medicine, Surgery and Paediatrics were the three most commonly rejected areas of medicine (partly reflecting the fact that these were three of the larger specialties). Few doctors in their final year of medical training rejected General Medicine at this time, most rejected it at a later stage in their careers. Conversely, with Obstetrics and Gynaecology more doctors rejected this area of specialism during the final year of medical training, in comparison with later years (See Table 4.7).

Interestingly, a higher proportion of men had rejected surgery than women (36% compared to 21%). It would seem that women made their minds up about surgery as an option earlier in their careers with 24% of all respondents rejecting it in their final year of medical training compared to 13% of men. A further 17% of women rejected surgery during their PRHO year compared to 11% of men.

Table 4.7 Specialties rejected by grade (%ages: selected areas)

	Final Year	PRHO	SHO	GP Reg	Sp Reg
General Practice	7	3	3	0	11
General Medicine	9	32	34	27	38
Obstetrics and Gynaecology	18	10	7	11	3
Paediatrics	15	9	13	17	4
Psychiatry	6	3	1	4	4
Surgery	34	32	26	21	22
Total cases	*131*	*106*	*349*	*71*	*148*

Source: Medical Career Advice and Guidance Survey, 2001

Again, hours of work/lack of flexibility in working patterns was a key feature of doctors decision-making when thinking about their areas of specialty (see Table 4.8). In 38% of cases where doctors rejected an area of medicine, working hours was the main reason, a further 12% mentioned domestic factors.

Competition for SpR posts was cited by one in four respondents. As above, gender was a key variable, 59% of women cited hours of work and domestic issues as influencing their choice compared to 39% of men.

Other domestic circumstances also influenced decision-making, although it was gender that explained most variation, even allowing for domestic responsibilities.

Table 4.8 Main reasons for rejecting specialty (up to two reasons)

	%
Hours of work/working conditions/flexible hours	38
Competition for SpR posts/No SpR posts/No NTNs	24
Not enjoyed specialty	13
Domestic (home/family/work balance)	12
Length/flexibility of training	12
Workload/stress/pressure	12
Nature/type of care (continuity/patient contact)	10
Interest and challenge/job satisfaction	6
Equal opportunities	5
Range of/varied work	4
Personal/location	4
Exams (*eg* difficult to pass)	4
Career development/promotion prospects	4
Poor quality of training/consultant	3
Future financial prospects	2
Enjoyment of specialty	2
Other	5
Total cases	*915*

Source: Medical Career Advice and Guidance Survey, 2001

Table 4.9 Reasons for rejecting specialties (hierarchy of reasons)

	Most important reason	2nd Most important reason	3rd Most important reason
A & E	Hours of work	Nature of care	Enjoyment/lack of
Anaesthetics	Hours of work	Enjoyment/lack of	Interest
General Practice	Hours of work	Competition	Interest
General Medicine	Hours of work	Competition	Training issues
Obs and Gynaecology	Competition	Hours of work	Training issues
Paediatrics	Hours of work	Competition	Domestic
Psychiatry	Enjoyment	Hours of work	Training/Nature of care
Surgery	Hours of work	Competition	Training issues
All Areas	Hours of work	Competition	Training issues

Source: Medical Career Advice and Guidance Survey, 2001

The reasons given for rejection varied between the specialities. For example those who rejected A&E, general medicine and paediatrics were more likely to have cited working hours as the reason – although these findings were confounded in part by the gender differences in specialty choice. Table 4.9 summarises the top three reasons given for each of the main specialties. The prevalence of hours of work as a reason for rejecting a career area was noteworthy.

The main reason for rejecting all specialties apart from Obstetrics and Gynaecology, and Psychiatry was hours of work. The next most important reason for rejecting most areas of medicine was competition for places, although for A & E and anaesthetics lack of enjoyment/interest and the nature of care were more important factors.

Finally, it is worth highlighting that doctors from overseas (outside the EEA) appeared more concerned about competition for SpR posts in thinking about their career choices, than was the case for others, especially UK doctors. 45% of doctors from outside the EEA mention this factor in rejecting certain specialties compared to 30% of EEA doctors and 19% of UK doctors.

Table 4.10 shows the relationship between the areas rejected and currently preferred option, for all respondents.

Remember that the specialty categories were based on the concatenation of a much larger number of specific individual specialties. Hence, the finding that 18% of those rejecting surgery have surgery as their currently preferred choice, relates to the fact that they had rejected one branch of the specialty in favour of another.

The main finding is the large proportion of respondents moving to General Practice as their current preferred choice from other areas.

Table 4.10: Rejected areas by current first choice

	Rejected choice							
Current choice	**A & E**	**Anaes**	**GP**	**Gen Med**	**Obs &Gynae**	**Paeds**	**Psych**	**Surgery**
A & E		15	7	3	5	3	6	8
Anaesthetics	13	9	7	8	2	5		9
General Practice	55	33	2	29	40	56	44	25
General Medicine	13	9	21	26	18	15	17	23
Obs and Gynae	3		7	2	5	2		2
Paediatrics		3	11	4	6	2	3	4
Psychiatry		3	14	7	4	8	8	1
Surgery	16	6	14	7	12	4	11	18
Other		18	9	11	5	5	6	7
Other response		3	9	4	2	1	6	3
Total cases	*31*	*33*	*44*	*283*	*82*	*104*	*36*	*252*

Source: Medical Career Advice and Guidance Survey, 2001

4.5 Summary

The main finding from this analysis is to indicate how the career preferences of male and female doctors differ. Surgery is still dominated by men, while roughly half the female doctors were considering General Practice.

Female respondents were more likely than male respondents to mention hours of work, nature of work/type of care and domestic issues as reasons for choosing their preferred area of work. The fact that hours of work emerged as the most frequently mentioned reason for choosing General Practice reinforced this finding.

Issues to do with working arrangements *eg* domestic issues and hours of work, were also the main constraints on choice of work area for women. Some areas of medicine were also rejected by many women at an early stage *eg* surgery.

Hours of work and associated issues *eg* working conditions, availability of flexible working, were the main reasons for rejecting areas of medicine, even General Practice. Competition for SpR posts was also an important reason why both female and male respondents reject certain areas of medicine. Competition is also listed as a reason for rejecting General Practice, which is somewhat surprising given the well publicised shortage of GPs. While experiencing and then rejecting an area of medicine could reflect positive learning on the part of the individual, the reasons given by the majority of respondents for rejecting areas of medicine suggest that this was happening less frequently than might be expected.

The main concern raised by these findings is the degree to which career choice, for women in particular but not exclusively, is being influenced by negative aspects of working arrangements and working conditions and also by the degree of competition for entry to specialist training. Notwithstanding the fact that most respondents were working in one of

their preferred work areas, respondents were being discouraged from entering or pursuing areas of medicine that they might otherwise have considered by factors not directly related to the nature of the work itself.

Anxiety about ability to progress in a specialty along with the desire to achieve some degree of work/life balance emerge as the key issues influencing specialty choice. The issue of competition, in particular, suggests that bottlenecks in the training system, particularly in relation to the number of NTNs being offered, is a serious concern for medical students and doctors in training.

While the findings reported here are broadly consistent with previous research, they demonstrate how career choice is as much a response to constraints of one kind or another as it is to intrinsic interest in a work area. Coupled with the findings from the previous chapter, it would appear that there is a strong need for better career advice and guidance at all career stages. In the next chapter, attitudes to careers in medicine and the availability of career advice are explored. These are important in terms of identifying the key issues that career advice and guidance provision needs to address. Issues to do with the training experience of respondents are reviewed in Chapter 6.

5. Views on career advice and factors influencing career progression

The survey contained a section in which respondents were asked to rate a set of attitude statements about careers in medicine and the availability of career advice for doctors in training. The main survey questionnaire for doctors in training included 21 attitude statements. Two of these statements which related to specialist training were dropped from the PRHO version of the questionnaire and a further four statements were dropped from the final year medical student version of the questionnaire.

The chapter starts by describing respondents' preferences for how career advice and guidance should be delivered and the extent to which they have been able to access advice during their training. Views about other career issues including factors affecting career progression are then examined. The chapter also lists the career advice and guidance requirements that respondents reported that they had. Respondents' experience of the career advice and guidance they have received is reviewed in Chapter 7.

5.1 Preferences about the provision of career advice

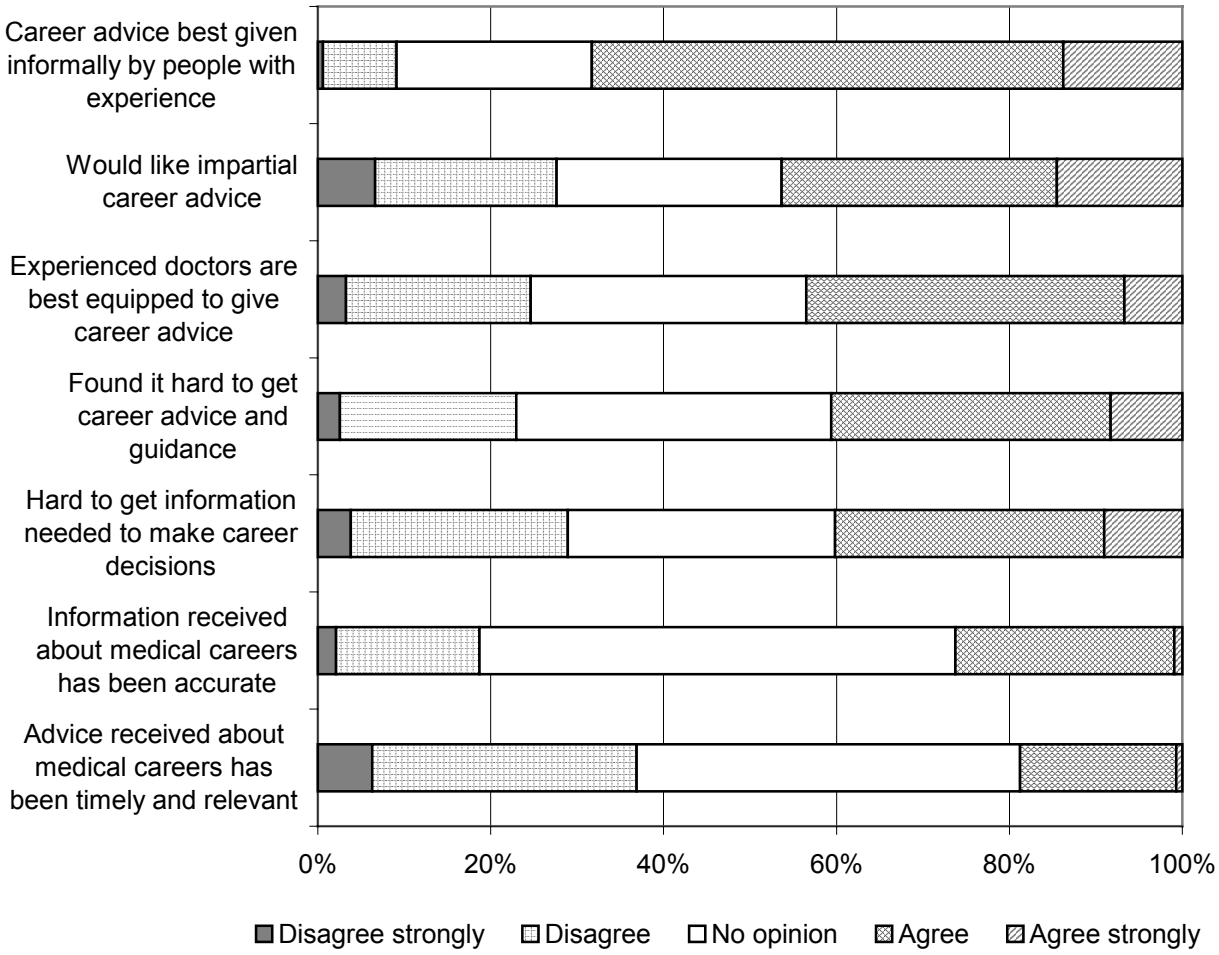
Seven of the statements related directly to the provision of career advice and guidance, while the remainder covered more general career issues. All respondents were asked these questions.

The replies of all respondents to the set of seven statements that asked about the provision of career advice are summarised in Figure 5.1[1] which indicates that:

- 69% of respondents agreed or agreed strongly that career advice is best given informally by people with direct and personal experience
- 47% of respondents agreed or agreed strongly that they would like access to career advice from someone who is impartial and independent of the medical establishment

[1] All statements were rated on a five point scale ranging from 1 Disagree strongly to 5 Agree strongly. The mid-point on the scale was labelled 3. As a result the percentage disagreeing with a statement is not (100 – percentage agreeing) as some respondents will have used the mid-point on the scale. Therefore, in reporting the percentage of respondents who agreed or disagreed with each statement, the largest percentage figure has been chosen *ie* if more respondents agreed than disagreed the percentage agreeing is reported and vice versa.

Figure 5.1: Preferences for career advice: all respondents

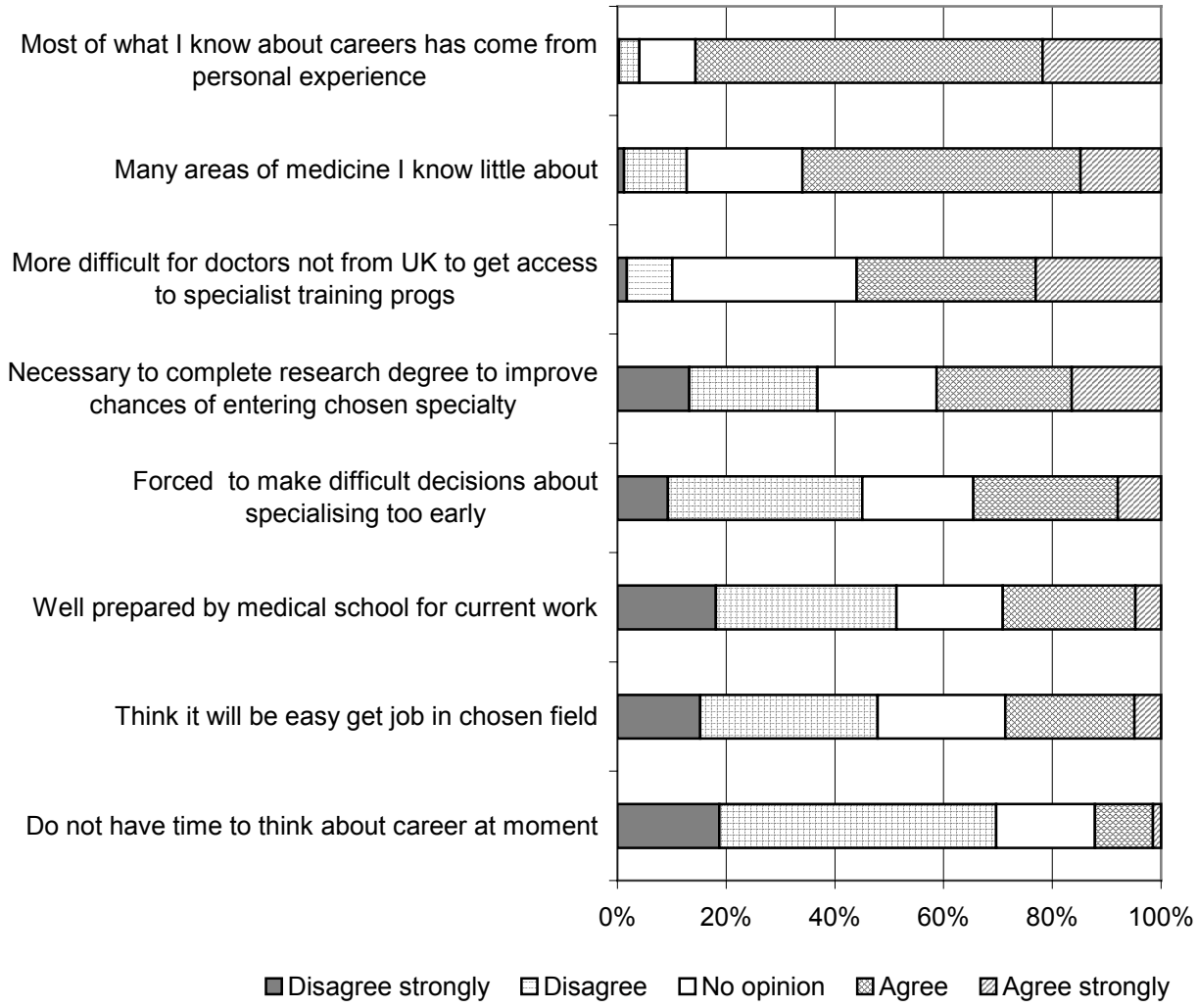


Source: Medical Career Advice and Guidance Survey, 2001

- 44% of respondents agreed or agreed strongly that experienced doctors (*eg* consultants or GPs) are the people best equipped to give career advice
- 40% of respondents agreed or agreed strongly that they have found it hard to get the information they feel they need to make career decisions and also that they have found it hard to get advice and guidance on careers in medicine
- 26% of respondents agreed or agreed strongly that the information they have received about careers in medicine has been accurate
- 37% of respondents disagreed or disagreed strongly that the advice they have received about medical careers has been timely and relevant.

29% of respondents agreed that they would like impartial advice and that they thought career advice is best given informally by people with direct and personal experience. In general, however, there is a weak negative correlation between these two statements (Kendall's tau=0.119, p<.001), such that agreeing with one means that one is more likely to disagree with the other.

Figure 5.2: Career knowledge and views about career progression: all respondents



Source: Medical Career Advice and Guidance Survey, 2001

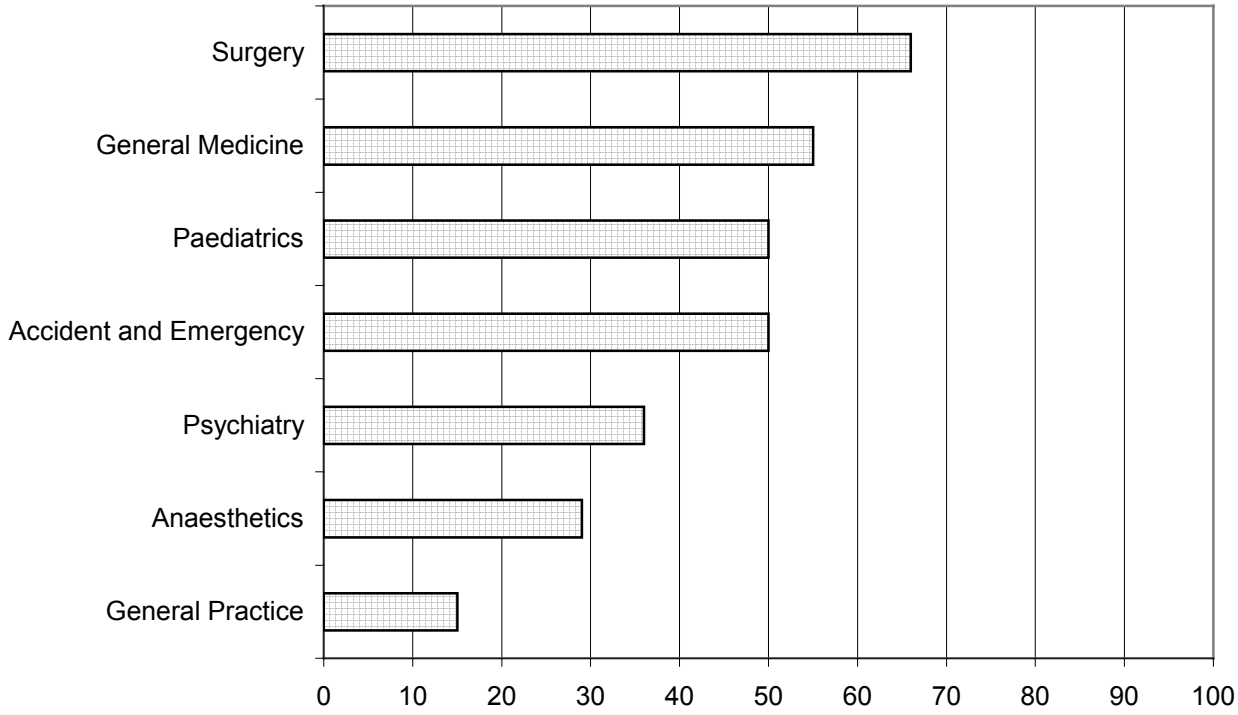
Impartial career advice was more important to UK female doctors with 51% agreeing or agree strongly with this statement compared to 38% of their male peers. This has implications for career guidance provision and may reflect a lack of senior female role models in the profession.

5.2 Knowledge of career options and career progress

The survey included a series of statements that asked about respondents' knowledge of medical careers and views about factors affecting career progression. Replies to the set of eight statements that all respondents were asked about these career issues are shown in Figure 5.2. Key points to note are:

- 86% agreed or agreed strongly that most of what they know about careers in medicine has come from personal experience
- 66% agreed or agreed strongly that there are many areas of medicine they know too little about

Figure 5.3: Percentage agreeing necessary to complete a research degree to improve chances of entering chosen specialty



Source: Medical Career Advice and Guidance Survey, 2001

- 56% agreed or agreed strongly that it is more difficult for doctors who are not from the UK to get access to specialist training programmes
- 41% agreed or agreed strongly that it is really necessary for them to complete a research degree to improve their chances of entering their chosen specialty
- 70% disagreed or disagreed strongly that they do not have time to think about their future career at present
- 51% disagreed or disagreed strongly that they were well prepared for their current work by their Medical School
- 48% disagreed or disagreed strongly that it will be relatively easy to get a job in their chosen field
- 45% disagreed or disagreed strongly that they feel that they will be forced to make difficult decisions about which area to specialise in too early in their career

However, half the final year students and PRHOs agreed with this last statement compared to 27% of doctors in training grades with an additional trend for female respondents in each group to be more likely to agree with this statement than their male peers.

5.2.1 Access to SpR training

91% of doctors in training from outside the EEA and 78% of doctors from other EEA countries agreed or agreed strongly that it is more difficult for

doctors who are not from the UK to get access to specialist training programmes. 59% of UK doctors in training held this view.

5.2.2 Need for a higher degree

Perceptions of the need to complete a research degree to improve chances of entering a chosen specialty varied by the specialty area that respondents were considering. Comparing replies for respondents in the SHO or PRHO grade or who were final year medical students indicated that 66% of those considering surgery agreed that a research degree would improve their chances of entering the specialty compared to only 15% of those considering general practice. Figure 5.3 summarises the replies for those areas which more than 50 respondents were considering.

5.3 Perceptions of career equity

Four statements were not included in the version of the questionnaire for final year students. Replies to these four statements that asked about specific issues related to career equity, that is whether careers are pursued on a level playing field, are shown in Figure 5.4. This shows that:

- 45% agreed or agreed strongly that there is too much patronage in the way people are selected for posts at the SHO level
- 43% agreed or agreed strongly that people on the GP vocational training scheme are made to feel like second class citizens during hospital rotations
- 29% agreed or agreed strongly that working abroad during your SHO training can lower your chances of entry to your chosen specialty area.
- 36% disagreed or disagreed strongly that there is too much emphasis placed on examinations in determining entry to specialist registrar training.

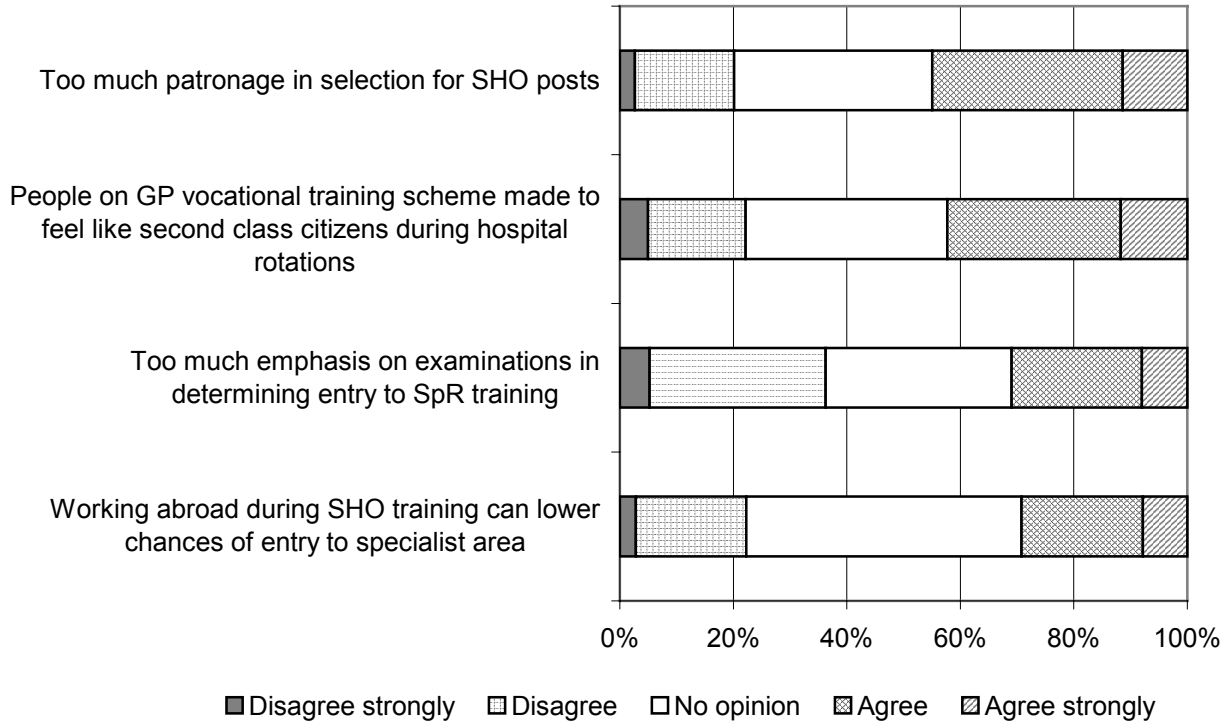
5.3.1 Patronage in SHO appointments

Half the overseas doctors in training agreed with that there is too much patronage in the way people are selected for posts at the SHO level as opposed to 26% of UK doctors in training. UK ethnic minority PRHOs and doctors in training were also more likely to agree with this statement with 54% of these respondents agreeing or agreeing strongly compared to 40% of other UK respondents.

5.3.2 GP Vocational Training Scheme

GP Registrars and SHOs on the GP Vocational Training Scheme were more likely to think that people on the scheme were made to feel like second class citizens during hospital rotations than other SHOs. 64% of GP registrars and 54% of SHOs on the GP Vocational Training Scheme felt they were made to feel like second class citizens during hospital rotations compared to 33% of SHOs who were not on the scheme.

Figure 5.4: Perceptions of career equity: Doctors and PRHOs



Source: Medical Career Advice and Guidance Survey, 2001

5.3.3 Working abroad

Respondents planning a career in surgery and SHOs not on the GP vocational training scheme were more likely to agree or agree strongly that working abroad during your SHO training can lower your chances of entry into your chosen specialty. 37% of respondents considering surgery agreed or agreed strongly with this statement as did 32% of SHOs not on the GP vocational training scheme.

5.3.4 Examinations and SpR training

71% of Clinical Research Fellows and 61% of SpRs disagreed or disagreed strongly that there was too much emphasis placed on examinations to determine entry to SpR training. However, 53% of GP registrars and 44% of SHOs on the GP Vocational Training Scheme agreed or agreed strongly with this statement.

5.3.5 Entry to Specialist Registrar training

59% of SHOs agreed or agreed strongly that they were worried that they will not get onto the specialist registrar training that they had been preparing for.

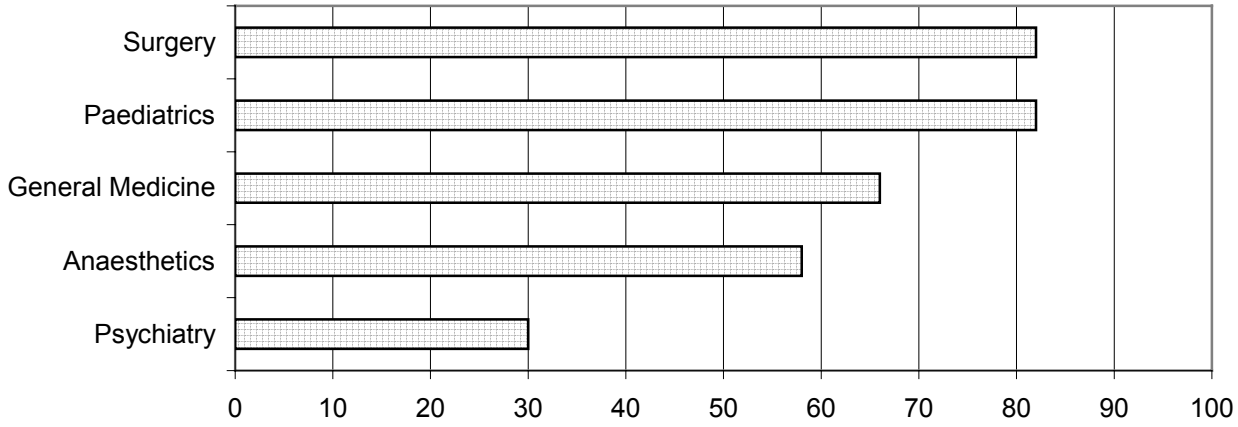
There were no differences in the pattern of replies by gender or ethnicity, although there was a tendency for SHOs who had been longer in the grade to be more worried than those who had spent less time in the SHO grade and SHOs from overseas to be more worried than UK SHOs. However, neither trend was statistically significant.

65% of SHOs from the 1997/98 and 1995/96 year groups agreed or agreed strongly that they were worried that they will not get onto the specialist registrar training that they had been preparing for compared to 55% of SHOs from the 1999/2000 year group.

66% of overseas SHOs agreed or agreed strongly that they were worried that they will not get onto the specialist registrar training that they had been preparing for compared to 56% of UK SHOs.

Analysis by the specialty area the SHOs were considering suggests that SHOs considering some areas were more worried than others. Replies for the five largest areas which more than 50 SHOs were considering are shown in Figure 5.5. This indicates that more SHOs saw surgery and paediatrics as competitive and fewest saw psychiatry as a competitive area.

Figure 5.5: Percentage of SHOs worried about entry to specialist training by area



Source: Medical Career Advice and Guidance Survey, 2001

5.3.6 Sub-specialty training

44% of Specialist Registrars agreed or agreed strongly that they expect to complete further training in a sub-specialty after obtaining their CCST. Respondents training in some specialties were more likely to agree with this statement. However, there were too few SpRs training in most specialties to permit more detailed analysis of this finding. However, of the 36 SpRs training in surgery, 61% expected to complete further training in a sub-specialty.

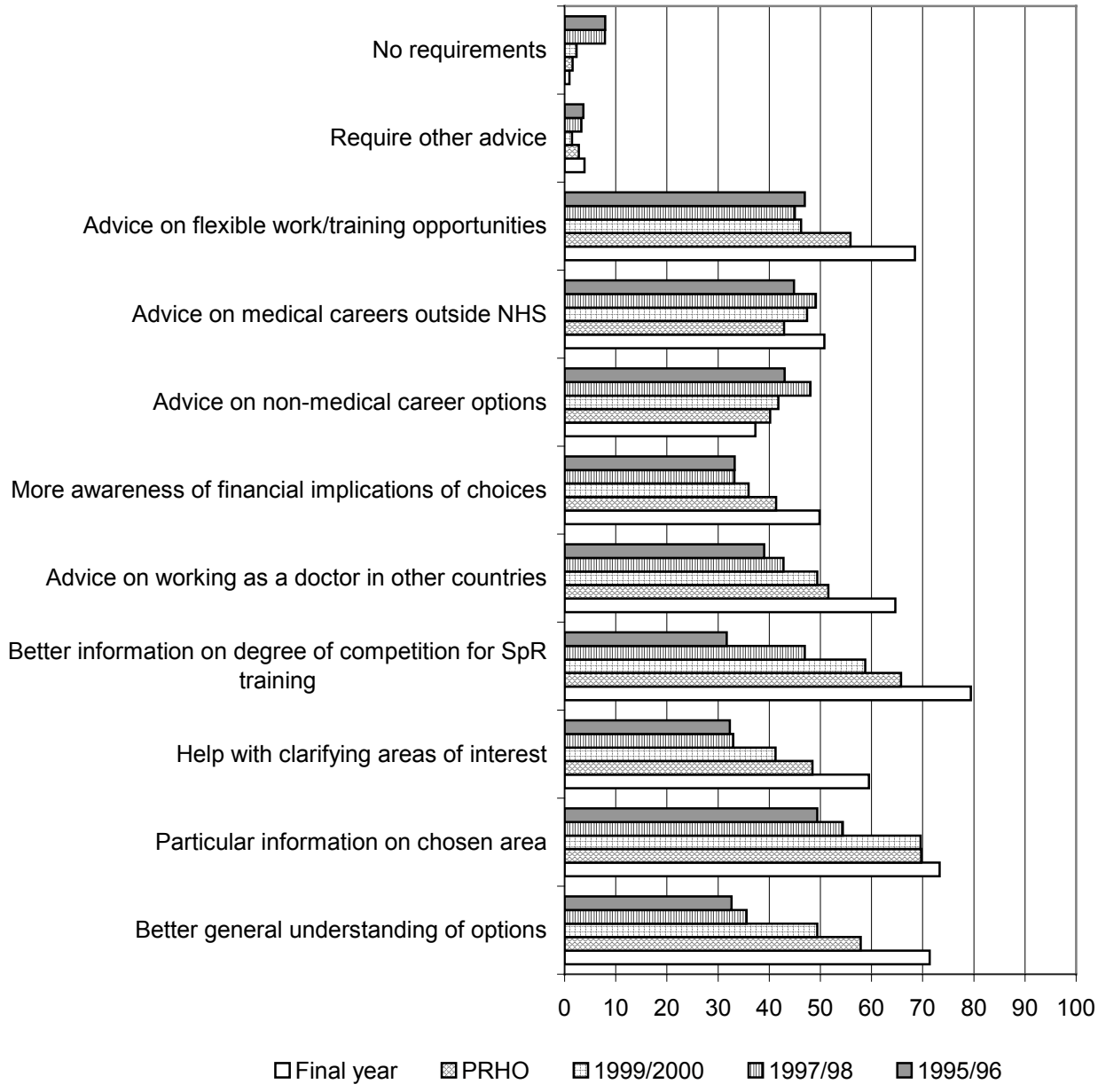
5.4 Career advice and guidance requirements

As well as looking at respondents' preferences for how career advice and guidance might be delivered, the survey also asked about the particular types of advice and information that respondents required.

They were asked to select from a list of nine possible options the types of career advice and guidance they thought they currently required. They also had the opportunity to specify any additional requirements. 95% of respondents reported that they had career guidance requirements with the proportion having requirements varying from 99% of final year medical students to 92% of the 1995/96 and 1997/98 cohorts.

There was a general trend for the number of requirements that respondents had to decrease across the year groups. However, there was also a trend for women to have more requirements than men, and for respondents from ethnic minorities and from outside the EEA to have more requirements than other respondents.

Figure 5.6: Career advice and guidance requirements



Source: Medical Career Advice and Guidance Survey, 2001

While it was not surprising that respondents who fell into the undecided group (predominantly final year students and PRHOs) had more requirements than those who were decided, the not satisfied group of respondents also had more requirements than those respondents who were satisfied with their current situation.

5.4.1 Trends by year group

Figure 5.6 summarises requirements by year group. It shows that most requirements declined steadily across the year groups, for example a better general understanding of career options declined from 71% of final year students to 33% of the 1995/96 cohort.

However, some requirements, for example advice on medical careers outside the NHS, remained at a similar level across the year groups, which meant that their relative importance as a requirement within the year group increased.

Overall, the pattern of requirements suggested that respondents at all levels have needs both for more specific information and for detailed advice and guidance to help them make informed career choices.

5.4.2 Gender differences

Over 60% of female respondents in all year groups wanted advice on flexible work/training opportunities with the proportion varying from 79% of final year medical students to 61% of the 1995/96 year group.

Female respondents were also more likely than male respondents to require advice and guidance in the following two areas:

- Better general understanding of career options (52% versus 42%)
- Help with clarifying my areas of interest (46% versus 36%).

5.4.3 Ethnic minority respondents

While there was a general trend for UK respondents from ethnic minorities to have more requirements than other UK respondents, the largest differences were in the following areas:

- Better information on the degree of competition for SpR training (62% versus 52%)
- More awareness of the financial implications of different career choices (51% versus 37%)
- Advice on non-medical career options (53% versus 42%)
- Advice on medical careers outside the NHS (62% versus 45%)

5.4.4 Overseas doctors

Overseas doctors also tended to have more career advice and guidance requirements than their UK counterparts. Particular issues for doctors in training from outside the EEA were:

- 70% required better information on the degree of competition for SpR training

- 47% required better general understanding of possible career options
- 43% required help with clarifying their areas of interest.

64% of both EEA and other overseas doctors in training required particular information on their area of intended career choice. Less surprisingly, fewer of the EEA and overseas doctors in training required advice about working overseas or non-medical career options than UK doctors in training.

5.5 Summary

The analysis of respondents' attitudes to career advice showed a preference for informal advice delivered by experienced doctors but it also indicated that a substantial proportion of respondents also wanted access to impartial advice. It is also apparent that many doctors did not seem well informed about medical career options and that they certainly did not feel well supported in finding out about them. It is clear that most doctors in training were very concerned about their future career but did not feel they had been well prepared to cope with many of the career issues that they will face.

This section also explored attitudes towards a number of specific career-related issues. These highlighted the concerns of particular groups of doctors including:

- The concerns of overseas doctors about access to specialist training and of overseas and UK ethnic minority doctors about SHO appointment procedures
- The perception of those considering surgery of the need to complete a research degree as a pre-requisite for entry to surgical training and the feeling that they would be disadvantaged if they worked abroad during their SHO training. SpRs in surgery were more likely to expect to complete sub-specialty training after they had obtained their CCST.
- The concern of GP registrars and SHOs on the GP Vocational Training scheme about their treatment during hospital rotations.

This analysis suggests that many respondents, and certain groups in particular, do not feel career opportunities and career progression are handled fairly. Fairness often becomes an important issue when there is a great deal of competition in a selection process.

Finally, this chapter has identified the extensive range of career advice and guidance requirements of respondents and examined how these varied by career stage. Some groups of respondents had more extensive requirements than others, notably women, overseas and ethnic minority doctors. It has also identified specific issues about which particular groups respondents wanted advice and guidance.

These findings may reflect the increasing diversity of those now studying medicine. They clearly indicate the need for a range of provision to cater for the diverse needs of respondents.

The next chapter looks at respondents' satisfaction with their training experiences as well as their intentions to train on a part-time basis, something which has considerable career consequences.

6. Training and development experience

In this section of the report respondents' experiences of training and development are explored. These provide important contextual information both about the career advice and guidance needs of respondents and the career and training issues that career interventions need to address. Achieving congruence between training and career guidance interventions is extremely important if overall career development needs are to be met. The first part of this chapter looks at respondents' replies to three questions that asked about flexible training.

6.1 Flexible training opportunities

All respondents, except final year medical students, were asked whether they had undertaken any of their training on a part-time basis. Also respondents, including final year medical students, were asked whether they intended to undertake any of their future training on a part-time basis and whether they had been put off training in certain specialties because of a lack of flexible training opportunities.

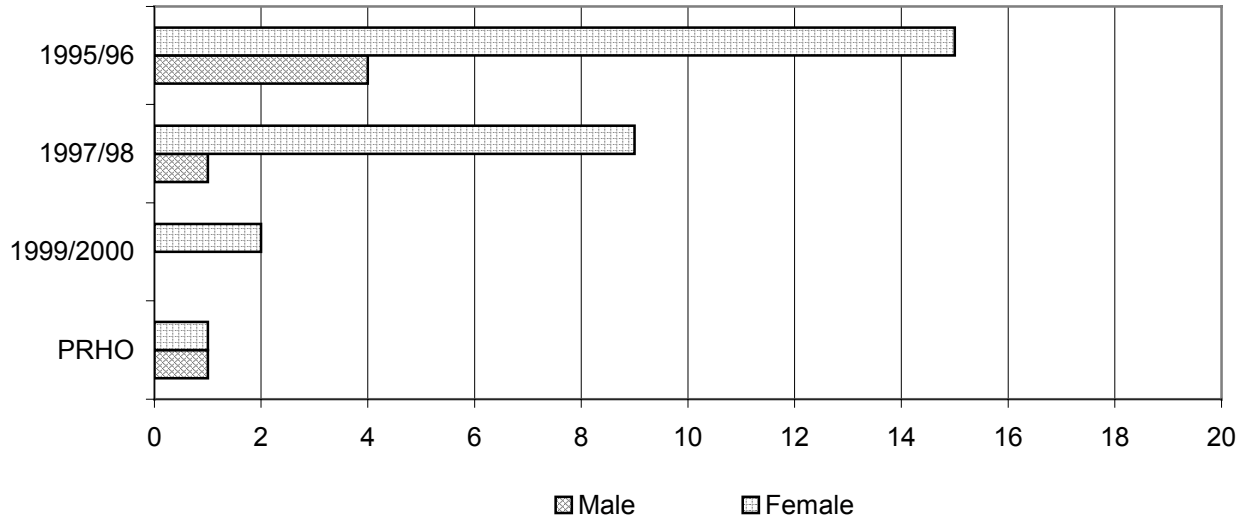
6.1.1 Participation in flexible training

Relatively few respondents had undertaken any of their training on a part-time basis, although women were more likely to have done some of their training on a part-time basis than men. Overall, 7% of female respondents compared to 2% of male respondents had undertaken some of their training in this way. However, the percentage of female respondents who had undertaken some of their training on a part-time basis increased from 1% of PRHOs to 15% of respondents in the 1995/96 cohort (see Figure 6.1).

The main factor that influences the likelihood of female respondents having undertaken some of their training on a part-time basis is whether they have dependent children. 43% of female respondents with dependent children have undertaken some of their training on a part-time basis compared with 2% of those without dependent children.

Unsurprisingly, the proportion of women with dependent children increased through the year groups, so that 26% of respondents in the 1995/96 cohort had dependent children and this was the group with the highest proportion who had undertaken some of their training on a part-time basis. It was also not surprising to find out that when male respondents had dependent children, their likelihood of having undertaken some of their training on a part-time basis did not increase. However, it should be noted that 4% of men in the 1995/96 cohort had

Figure 6.1: Percentage who have undertaken some training on a part-time basis



Source: Medical Career Advice and Guidance Survey, 2001

undertaken some of their training on a part-time basis and men may have had far fewer opportunities than women to train on a part-time basis.

6.1.2 Flexible training intentions

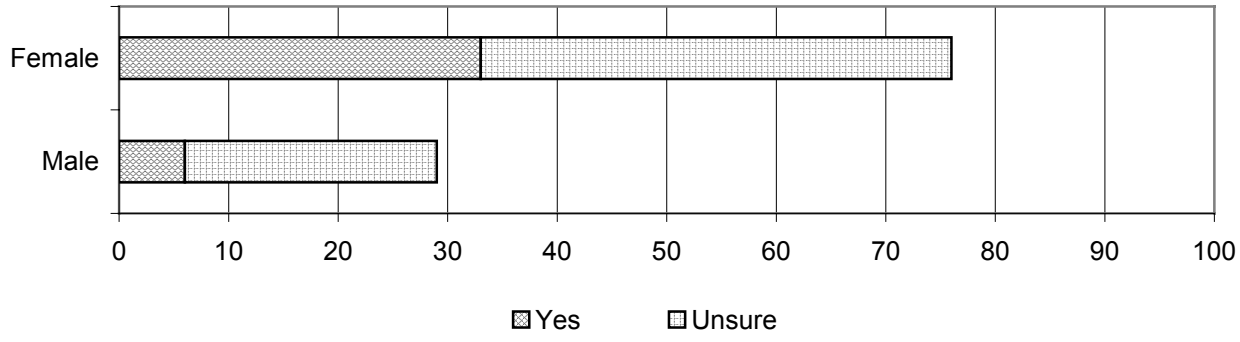
33% of female respondents planned to undertake some of their future training on a part-time basis, while a further 43% were unsure whether they would or not. This compared to 6% of male respondents planning to undertake some of their future training on a part-time basis with a further 23% being unsure (see Figure 6.2).

It is worth noting, however, that 29% of men either definitely or possibly plan to undertake training on a part-time basis in the future. This finding suggests that the fact that only 2% of male respondents had so far undertaken flexible training may relate more to lack of access to more flexible training rather than a lack of desire to do so.

The proportion of female respondents saying they plan to undertake some of their future training on a part-time basis increased from 20% of final year students to 41% of the 1995/96 year group. At the same time the proportion saying they were not going to undertake any of their training on a part-time basis also increased from 17% to 33%. Respondents became more certain of their future plans over time.

Whether women had dependent children or not had a major effect on the likelihood of their planning to undertake some of their training on a part-time basis. 62% of female respondents with dependent children planned to undertake some of their training on a part-time basis compared to 30% of those without dependent children. However, a further 45% of female respondents without dependent children were unsure whether they would undertake any of their future training on a part-time basis compared to 20% of those with dependent children.

Figure 6.2: Percentage planning to undertake future training on a part-time basis



Source: Medical Career Advice and Guidance Survey, 2001

Ethnicity and nationality did not have an effect on the likelihood of female respondents planning to undertake some of their training on a part-time basis.

6.1.3 Impact on choice of specialty

42% of all female respondents had been put off training in certain specialties because of the lack of flexible training opportunities compared to 15% of male respondents. The lack of flexibility of training in some specialties impacts on career decisions at an early stage. Final year medical students were much more likely than other respondents to report that they were put off training in some specialties by lack of flexible training opportunities. 60% of female and 29% of male final year medical students had been put off training in certain specialties because of the lack of flexible training opportunities compared to 39% and 12% of other respondents respectively. However, these findings show that rigidity of training is still an issue for men as well as women.

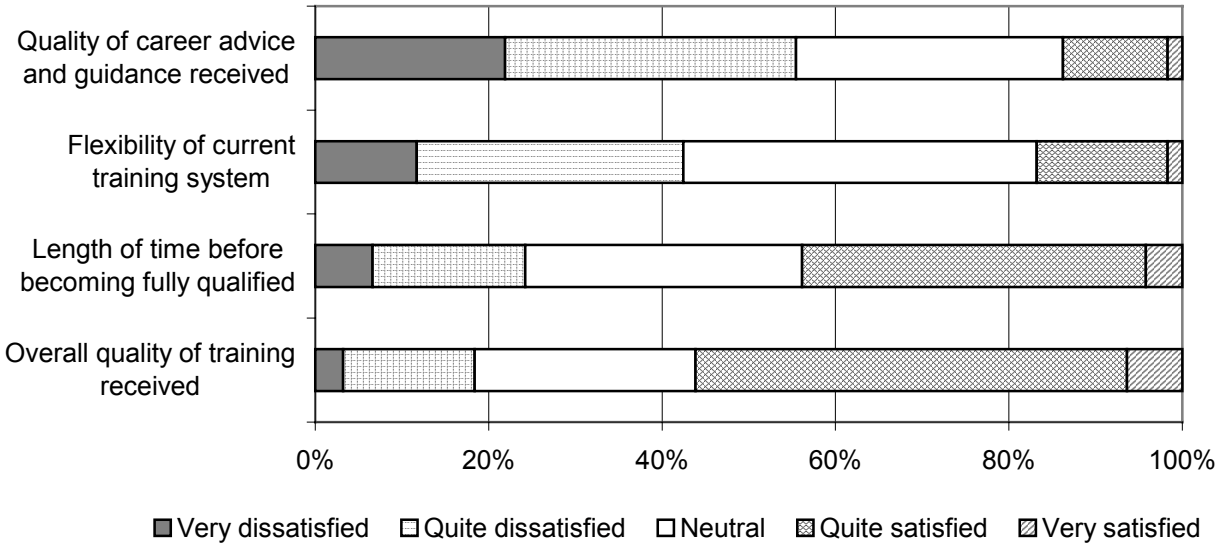
Once again, female doctors in training with dependent children were even more likely to report that they had been put off training in some specialties than those without children. 49% of female doctors in training with dependent children reported they had been put off training in some specialties compared to 35% of those without children.

6.2 Satisfaction with training and development

Respondents were asked to rate their satisfaction with a number of aspects of the training they had received to date, including the career advice and guidance they had received. The main survey questionnaire asked about satisfaction with 11 aspects of training. Four of these were excluded from the PRHO version of the questionnaire as inappropriate and a further three excluded from the final year medical student version of the questionnaire.

Replies to the four core statements asked to all respondents are shown in Figure 6.3. This indicates that, while 56% of all respondents were quite or very satisfied with the overall quality of the training they have received, 55% were quite or very dissatisfied with the quality of the career advice and guidance they have received.

Figure 6.3: Satisfaction with training: all respondents



Source: Medical Career Advice and Guidance Survey, 2001

It also shows that, while 44% of all respondents were quite or very satisfied with the overall length of time it will take before they become fully qualified in their chosen career field, 42% were quite or very dissatisfied with the flexibility of the current training system.

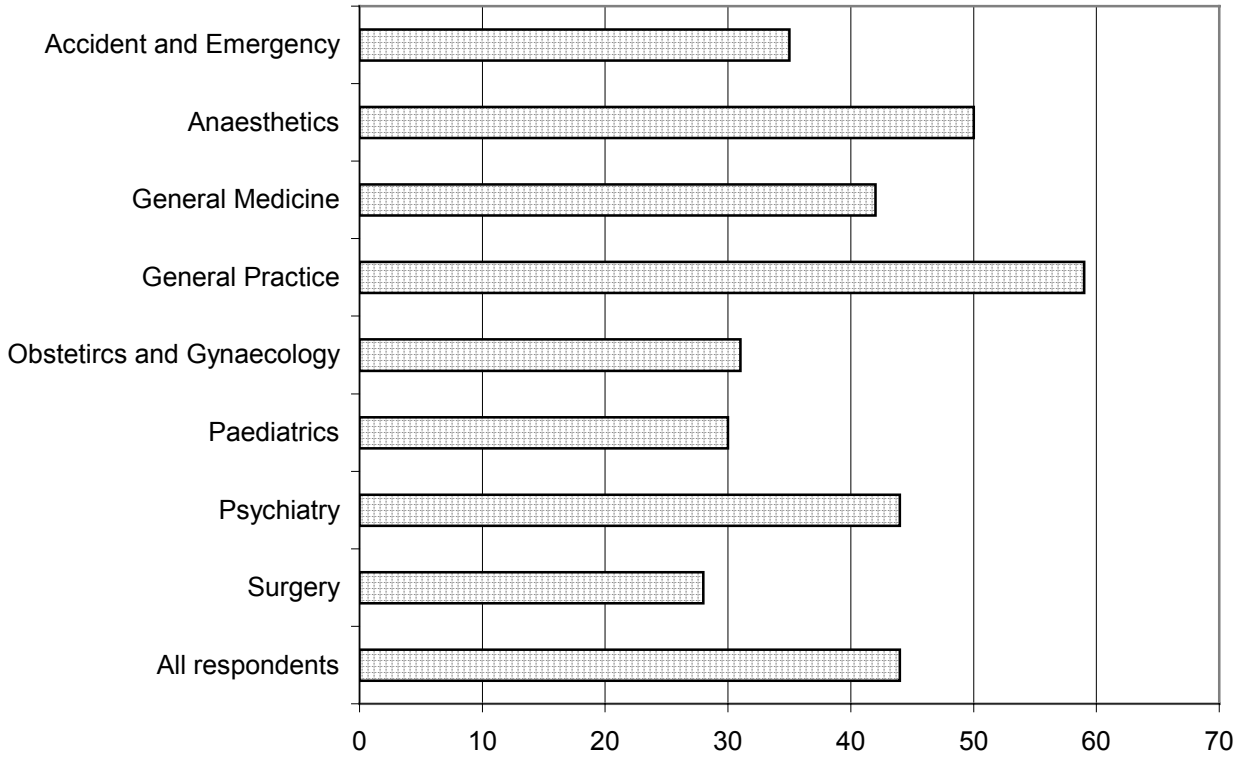
Final year medical students were generally more satisfied with the overall quality of their training with 67% reporting that they were quite or very satisfied, but they were more dissatisfied with the quality of the career advice and guidance they have received with 64% reporting that they were quite or very dissatisfied. Half the final year medical students did not express an opinion about the flexibility of the current training system.

Dissatisfaction with the quality of career advice and guidance received varied by year and gender. Although male final year students were more dissatisfied than female ones (69% quite or very dissatisfied compared to 60%), this was not a statistically significant difference. However, females in the PRHO and 1999/2000 year groups were significantly more dissatisfied than their male peers (56% compared to 47%). UK doctors in training tended to be more dissatisfied than overseas doctors in training (55% compared to 48%) but not significantly so, nor was there any difference in satisfaction by ethnicity among UK respondents.

Female doctors in training were less satisfied with the flexibility of the current training system than female PRHOs or final year medical students. 49% of female doctors in training were quite or very dissatisfied with the flexibility of the current training system compared to 45% of female PRHOs and 31% of female final year medical students. There was a similar trend for male respondents with 44% of male doctors in training being quite or very dissatisfied with the flexibility of the current training system compared with 27% of PRHOs and final year medical students.

Respondents considering some specialties were more satisfied with the overall length of time it would take before they became fully qualified (see

Figure 6.4: Percentage quite or very satisfied with length of training: selected specialties



Source: Medical Career Advice and Guidance Survey, 2001

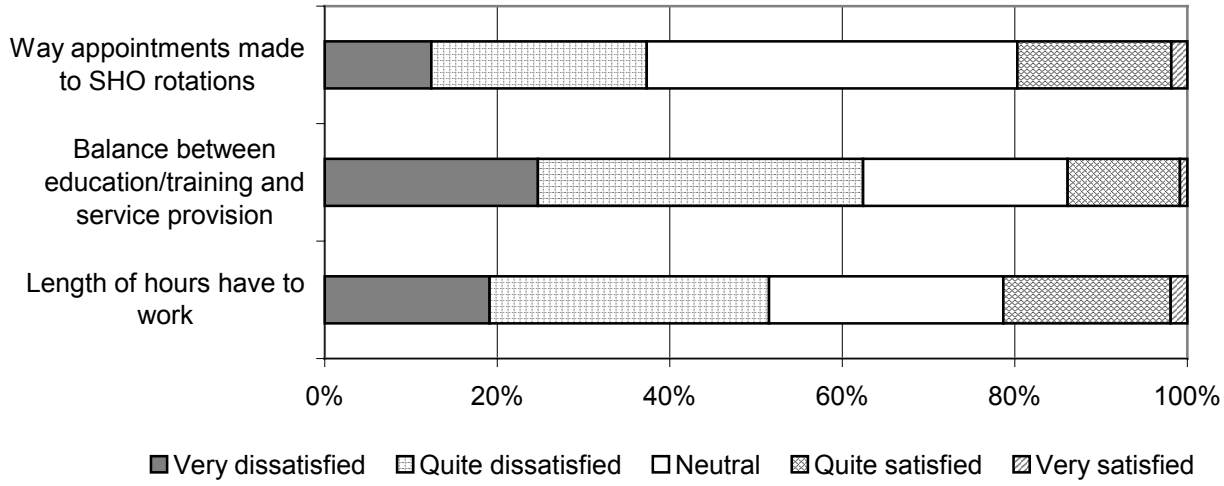
Figure 6.4). For example, while 59% of those considering General Practice as their first preferred area were quite or very satisfied with the time it would take to train, only 28% of those considering surgery were.

6.2.1 PRHOs and doctors in training

The overall pattern of replies to the three statements that were only asked to PRHOs and doctors in training are shown in Figure 6.5. This shows that 51% were quite or very dissatisfied with the length of the hours they have to work, 62% with the balance between the time spent on education/training versus service provision and 37% with the way appointments are made to SHO rotations.

PRHOs, who were likely to be in the process of applying for their first SHO posts at the time of the survey, were particularly dissatisfied with the way appointments are made to SHO rotations with 46% reporting that they were quite or very dissatisfied. However, they were slightly less dissatisfied with the balance between the time spent on education/training versus service provision with 56% reporting that they were quite or very dissatisfied compared with 63% of doctors in training (Chi square= 7.1, $p<.05$, df=2). PRHOs were also less dissatisfied with the length of the hours they have to work with 44% reporting that they were quite or very dissatisfied compared with 53% of doctors in training.

Figure 6.5: Satisfaction with aspects of training: PRHOs and doctors in training



Source: Medical Career Advice and Guidance Survey, 2001

Overseas doctors in training were generally less dissatisfied than UK doctors in training about the length of the hours they have to work with 44% reporting that they were quite or very dissatisfied compared to 56% of UK doctors in training. Overseas doctors in training were also less dissatisfied with the balance between the time spent on education/training versus service provision with 54% reporting that they were quite or very dissatisfied compared with 64% of UK doctors in training. However, overseas SHOs were slightly more dissatisfied with the way appointments are made to SHO rotations with 46% reporting that they were quite or very dissatisfied compared with 34% of UK SHOs (Chi square= 7.6, $p<.05$, df=2).

UK SHOs from ethnic minorities were also tended to be more dissatisfied than other UK SHOs with the way appointments are made to SHO rotations with 46% reporting that they were quite or very dissatisfied compared with 32% of other UK SHOs but this difference is not statistically significant.

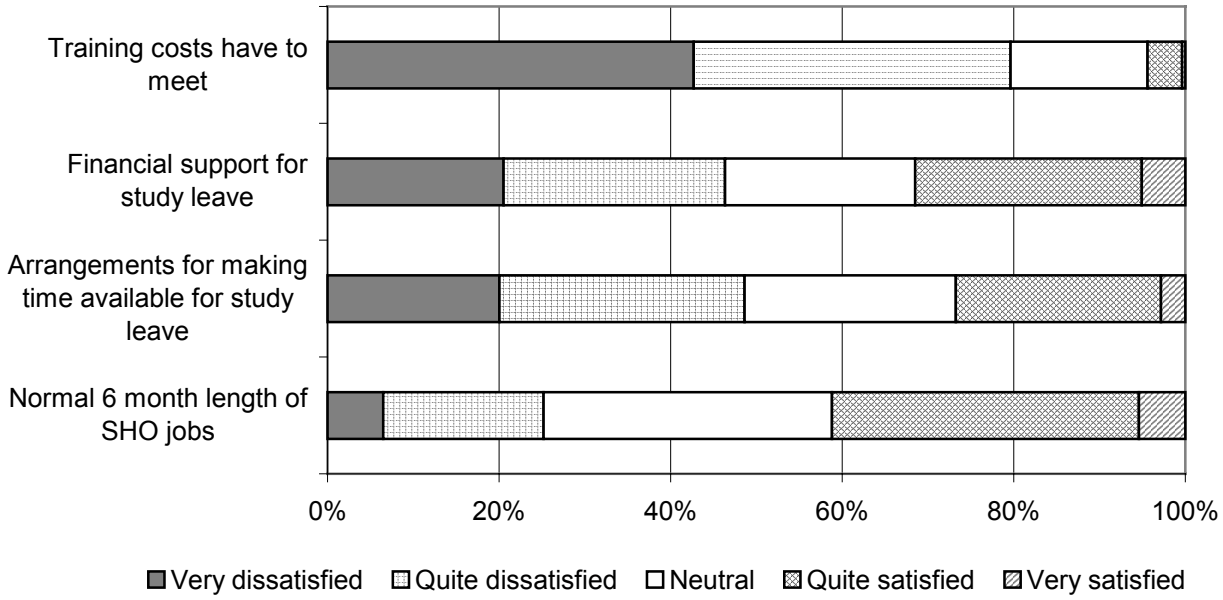
6.2.2 Doctors in training

A further four statements about training and development experience were only included in the main version of the questionnaire as it was felt that PRHOs and final year students would not have direct experience of them. The replies from doctors in training to these statements are shown in Figure 6.6.

This shows that:

- 80% were quite or very dissatisfied with the training costs (*eg* exam fees) that they have to meet
- 49% were quite or very dissatisfied with arrangements for making time available for study leave and 47% were quite or very dissatisfied with financial support for study leave
- 41% were quite or very satisfied with the normal 6 month length of SHO jobs

Figure 6.6: Satisfaction with aspects of training: doctors in training



Source: Medical Career Advice and Guidance Survey, 2001

6.2.3 Scales for satisfaction with training

Two scales were constructed to facilitate making comparisons across groups of respondents. The scales were based on the factor analysis of replies from the main version of the survey questionnaire *ie* they excluded replies from PRHOs and final year medical students who were only asked a sub-set of these questions. The first scale consisted of the two statements that referred to arrangements and financial support for study leave, while the second scale was based on the remaining nine statements. The first scale, therefore, measured satisfaction with support for study leave and the second scale satisfaction with all other aspects of training[1].

Scale scores were calculated by adding together the scores from the individual items that make up the scale and then dividing by the number of items in the scale. This means that both scales range from 1 which means rating 'very dissatisfied' to every item in the scale to 5 which means rating 'very satisfied' on every item in the scale. The mid-point on both scales is a score of (3).

All groups of respondents scored below the mid-point on the satisfaction with training scale indicating an overall degree of dissatisfaction with their experience of training. Analysis of scale scores found that UK ethnic minority doctors in training were less satisfied with their experience of training than other UK doctors in training ($t=2.59$, $df=743$, $p<.05$), specialist registrars were more satisfied than SHOs ($t=4.0$, $df=826$, $p<.001$) and SHOs on the GP Vocational Training scheme were more satisfied than other SHOs ($t=2.2$, $df=553$, $p<.05$).

[1] Full details of the scales are given in Appendix 5.

As far as satisfaction with support for study leave was concerned, once again all groups of respondents scored below the mid-point on the scale indicating a degree of dissatisfaction with existing support arrangements. In particular, analysis indicated that UK doctors in training were more dissatisfied than overseas doctors in training ($t=3.6$, $df=1007$, $p<.001$) and that UK ethnic minority doctors in training were more dissatisfied than other UK doctors ($t=2.2$, $df=762$, $p<.05$).

6.3 Summary

The data reported in this chapter indicate that, while respondents reported that they were moderately satisfied with the overall quality of their training, there were a number of issues related to training and development that need to be addressed.

First of all, the results showed that there will continue to be a strong demand for flexible training opportunities. Most of this will occur at a relatively late stage in respondents' training, as the average age of female respondents with dependent children was 31 years. Lack of flexible training opportunities was a major cause of dissatisfaction and is shown to have a major impact on career choice. 42% of female respondents and 15% of male respondents had been put off training in certain specialities because of lack of flexible training opportunities, potentially aggravating shortages in some areas.

Secondly, the survey has indicated the high levels of dissatisfaction with the quality of career advice and guidance respondents had received. The majority (55%) of respondents were quite or very dissatisfied with this, which strongly suggests that existing approaches are insufficient to meet their needs.

Thirdly, the analysis has indicated dissatisfaction with SHO appointment procedures, particularly among overseas SHOs and, to a lesser extent, among UK SHOs from minority ethnic backgrounds. Nearly half (46%) of overseas and UK ethnic minority SHOs were dissatisfied with the way appointments were made to SHO rotations. It has also demonstrated considerable dissatisfaction with the balance between education/training and service provision, especially among UK doctors in training. 64% of UK doctors in training were dissatisfied with the balance between education/training and service provision.

Finally, there was very strong dissatisfaction (80% dissatisfied) with the training costs (*eg* exam fees) doctors in training have to meet and nearly half the doctors in training were dissatisfied with the support arrangements for study leave.

Respondents' views about existing provision for career advice and guidance are reviewed in the next chapter. These views are particularly critical in the light of the dissatisfaction reported with their experience of it to date. Career advice and guidance interventions are needed to complement training processes both to address particular concerns about training and to assist doctors in training to manage the training process more effectively.

7. Career advice and guidance provision

This chapter describes how final year students and doctors in training currently receive career advice and guidance and how useful they find it. This is important for the design of career interventions if they are to target the needs of different groups of respondents. It builds on the analysis of the diverse range of career guidance requirements that respondents have.

7.1 Use of advice and guidance provision

The survey collected information about respondents' use of different sources of career advice and guidance as well as whether they had attended specific types of career event. Figure 7.1 summarises this information for all respondents.

Three sources of career advice and guidance had been used much more frequently than any others. These were:

1. Senior doctors (*eg* Consultants, GPs) mentioned by 87% of respondents
2. More experienced peers (*eg* in next grade) mentioned by 74% of respondents
3. Peer group (*eg* others in same grade) mentioned by 70% of respondents.

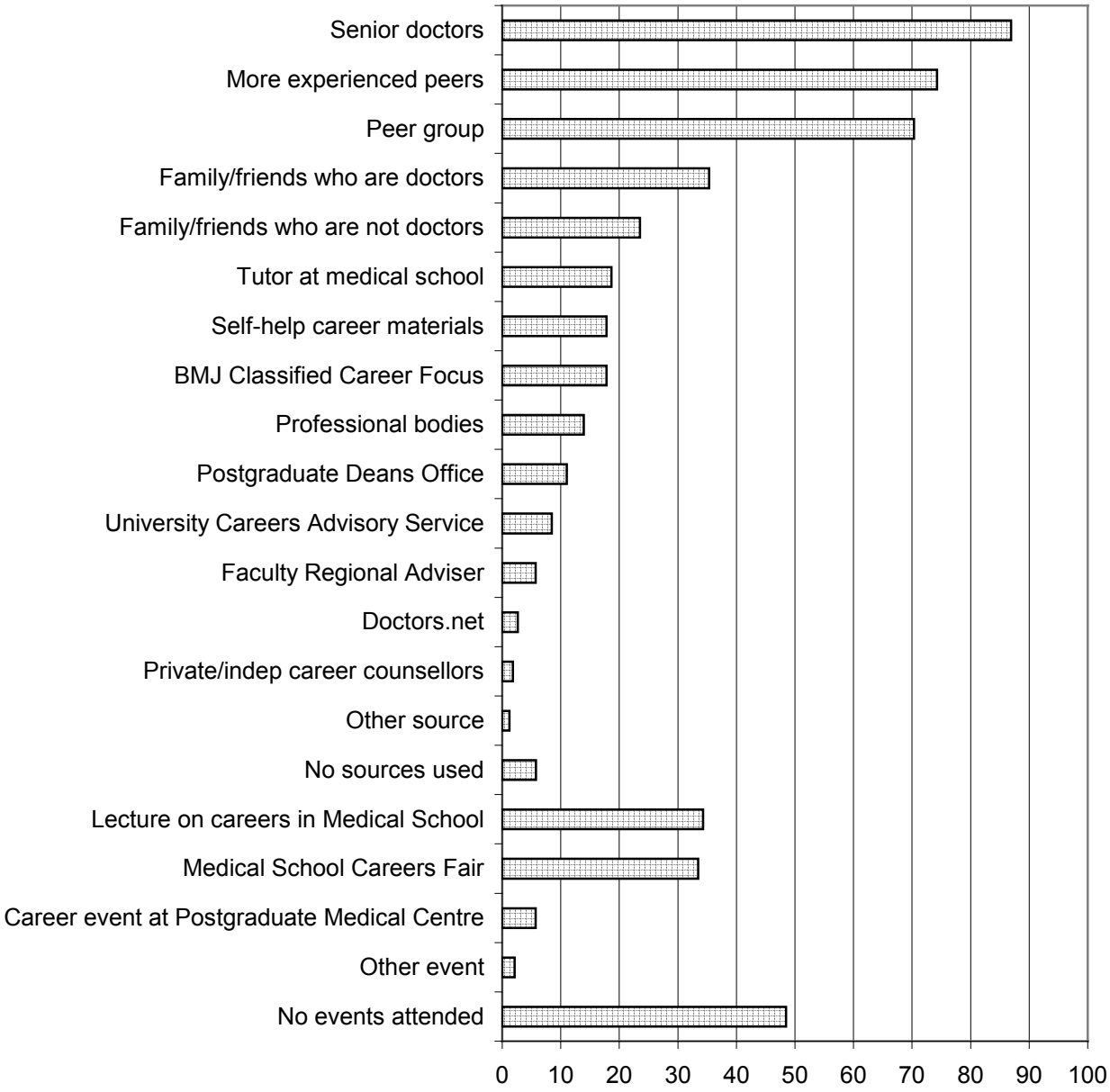
These were the top three sources for all groups of respondents.

Family and friends who are doctors were mentioned by 35% of respondents and family and friends who are not doctors were mentioned by 24% of respondents. No other sources of career advice and guidance were mentioned by more than 20% of respondents and 6% of respondents had not used any of these sources of advice.

34% of respondents had attended a lecture on careers at medical school and 33% had attended a medical school careers fair but 48% of respondents had never attended a careers event.

What was more surprising was the relatively low use of the three sources: Postgraduate Deans Office, tutors at medical school or Faculty Regional Advisers, which might be expected to be significant sources of pastoral and educational guidance. Excluding final year students who were not asked about use of the Postgraduate Deans Office or Faculty Regional Advisers, 30% of respondents had used one or more of these sources with little variation in this percentage by year group.

Figure 7.1: Use of sources of career advice and guidance and career events attended



Source: Medical Career Advice and Guidance Survey, 2001

Use of sources of advice and guidance as well as attendance at career events did not vary significantly by gender of respondent. However, use of some sources of advice and guidance as well as attendance at career events varied by year group and by nationality with some sources being more frequently used by more experienced year groups and others being more frequently used by PRHOs and final year students. Key differences in the use of different sources are listed below:

1. **Family and friends:** The use of family and friends, whether they were doctors or not, as sources of career advice and guidance was mentioned by 46% of all respondents but by 53% of final year students and only 39% of the 1995/96 cohort.
2. **Self-help career materials:** 29% of final year students reported that they had used self-help materials as had 20% of PRHOs and 21% of

the 1999/2000 cohort compared to 13% of the 1997/98 cohort and 10% of the 1995/96 cohort.

3. **BMJ Classified[1] Career Focus:** This was used by only 7% of final year medical students but by 22% of the 1997/98 and 1995/96 cohorts and 19% of PRHOs.

7.1.1 Overseas doctors

Overseas doctors in the SHO grade and above were generally less likely to use the three main sources of advice and guidance than UK doctors in the same grades but more likely to use family and friends who are doctors (see Table 7.1).

Table 7.1: Use of major sources of career advice and guidance

Source of advice and guidance	UK %	Overseas %
Senior doctors	88	78
More experienced peers	77	64
Peer group	77	60
Family and friends who are doctors	31	41

Source: Medical Career Advice and Guidance Survey, 2001

When the number of events attended or sources of advice used is calculated, overseas doctors in training grades had used fewer than UK doctors in equivalent grades ($t=4.32$, $p<.001$, $df=1006$), while overseas final year students and PRHOs had used more than UK final year students and PRHOs ($t=2.47$, $p<.05$, $df=560$).

7.1.2 UK respondents from minority ethnic backgrounds

There were also differences in the use of sources of career advice and guidance between UK respondents from minority ethnic backgrounds and other UK respondents. UK respondents from minority ethnic backgrounds were less likely to use senior doctors but more likely to use family and friends who are doctors as sources of career advice than other UK respondents (see Table 7.2).

Table 7.2: Use of major sources of career advice and guidance: UK doctors

Source of advice and guidance	Minority ethnic background %	Other background %
Senior doctors	79	90
Family and friends who are doctors	42	31

Source: Medical Career Advice and Guidance Survey, 2001

However, there was no difference among UK respondents in the overall number of events attended or sources of advice used by respondent's ethnic background.

[1] BMJ Classified has been renamed BMJ Careers.

7.1.3 Patterns of use

Overall level of use varied across the year groups with PRHOs using the most, but use then declined across the remaining year groups. It is difficult to be certain in a retrospective survey how much this decrease is a function of respondents in older cohorts not recalling sources they had used earlier, or to what extent it reflects genuine changes in levels of use over time. The number of sources used/events attended, however, varied with decidedness with more decided respondents having used fewer sources or attended fewer career events than undecided ones. This suggests that undecided respondents had sought out advice.

When the pattern of use was examined by career stage, statistically significant differences were found:

- Undecided PRHOs and final year students were more likely than decided ones to have used their peer group (69% versus 58%) and family and friends who are not doctors (32% versus 18%)
- Undecided UK doctors in training were more likely than decided ones to have used their tutor at medical school (23% versus 15%), family and friends who are not doctors (32% versus 20%), and self-help career materials (23% versus 12%).

There were no significant differences in the number used by whether respondents were more or less satisfied with their career decision-making. Nor were there any clear relationships between attendance at career events and decidedness or satisfaction with career decision-making.

7.2 Usefulness of career advice and guidance provision

The survey asked respondents to rate the usefulness of those sources and events that they had used on a four point scale from 1 *Not at all useful* to 4 *Very useful*. Figure 7.2 summarises the replies and shows the proportion of respondents who described each of the sources/events as useful or very useful. Only respondents who had used a particular source of advice or attended a type of event were included in the analysis.

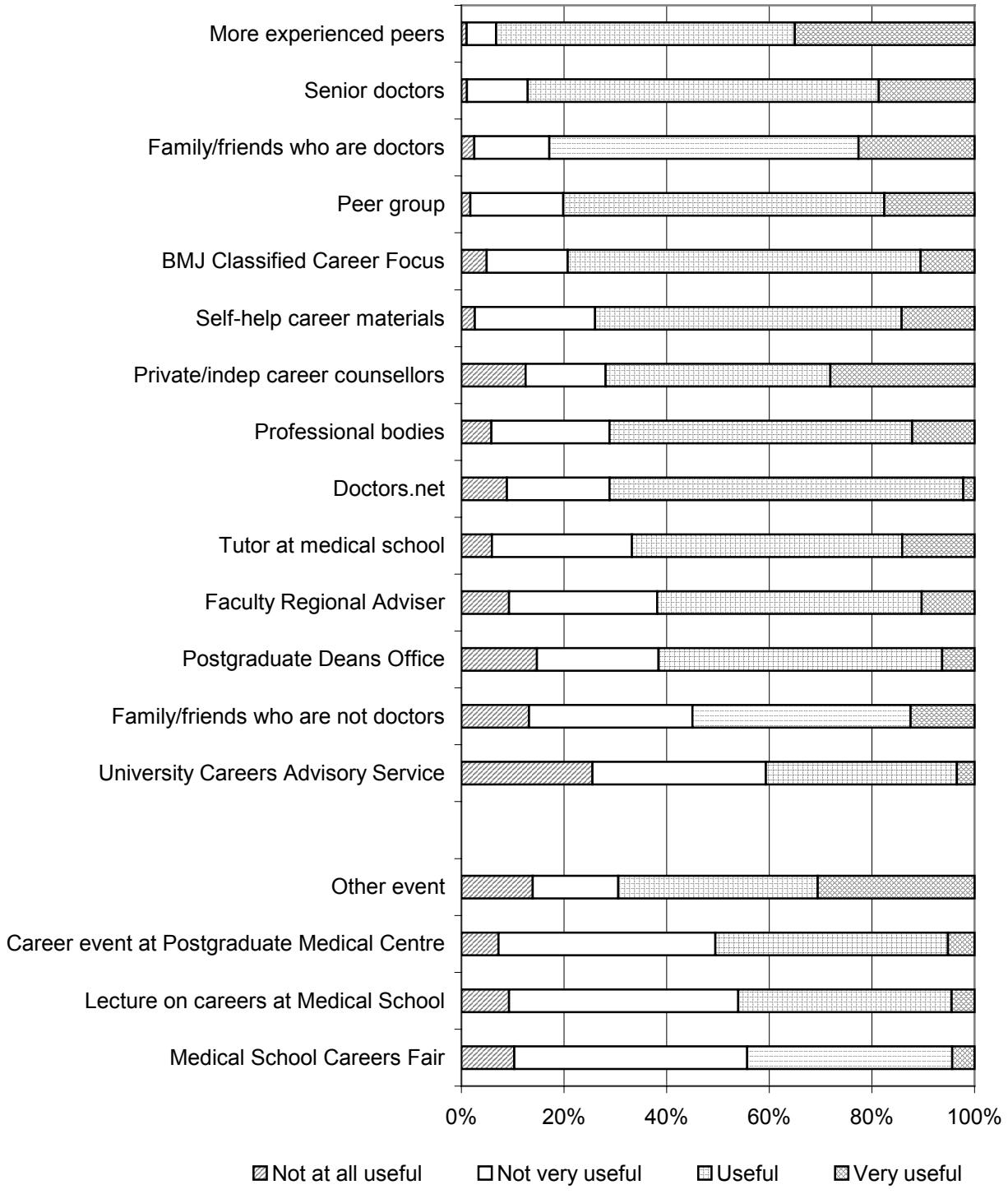
The five sources that were rated as useful or very useful by over three-quarters of those who had used them were:

1. More experienced peers (93% rated as useful or very useful)
2. Senior doctors (87% rated as useful or very useful)
3. Family and friends who are doctors (83% rated as useful or very useful)
4. Peer group (80% rated as useful or very useful)
5. BMJ Classified Career Focus (79% rated as useful or very useful)

Three sources/events were rated as useful or very useful by less than half those who had used them. These were:

1. University Careers Advisory Services (41% rated as useful or very useful)

Figure 7.2: Usefulness of sources of advice and career events



Source: Medical Career Advice and Guidance Survey, 2001

2. Medical School Careers Fair (44% rated as useful or very useful)
3. Lecture on careers at Medical School (46% rated as useful or very useful)

7.2.1 Overseas doctors

There were number of sources which overseas doctors in training reported as less useful to them than UK doctors in the equivalent grades. Most important differences were:

1. Postgraduate Deans Office: 45% of overseas doctors who had used it as a source of advice rated it useful or very useful compared to 66% of UK Doctors (Chi square= 4.2, p<.05, df=1)
2. Professional Bodies (*eg* BMA, Royal Colleges): 47% of overseas doctors who had used them as a source of advice rated them useful or very useful compared to 74% of UK Doctors

On the other hand, 67% of overseas doctors in training had found Medical School Careers Fairs useful or very useful compared to 35% of UK doctors (Chi square= 5.9, p<.05, df=1).

7.2.2 UK doctors from minority ethnic backgrounds

58% of UK respondents from minority ethnic backgrounds had also found Medical School Careers Fairs useful or very useful compared to 41% of other UK respondents.

Other differences in ratings of usefulness of events or sources by ethnic background among UK respondents were not statistically significant.

7.2.3 Relationship with career decision-making

There was a general trend for respondents who fall into the not satisfied group on the satisfaction with career decision-making scale to rate sources of career advice or events attended as less useful to them. Differences were more marked for some sources than others and whether a difference is statistically significant is also affected by the overall number of respondents who had used each particular source. Some of the largest differences are listed below:

- Senior doctors (75% of not satisfied group rated useful or very useful compared to 90% of satisfied group)
- Tutor at medical school (29% of not satisfied group rated useful or very useful compared to 63% of satisfied group)
- More experienced peers (85% of not satisfied group rated useful or very useful compared to 94% of satisfied group)
- Family and friend who are doctors (65% of not satisfied group rated useful or very useful compared to 81% of satisfied group)
- Self-help career materials (48% of not satisfied group rated useful or very useful compared to 70% of satisfied group)

It seems likely that these differences were most likely to be symptomatic of the greater and/or more complex career needs that these respondents may have had.

Table 7.3: Most useful career advice

Final year Medical Students
There are other options than the general medicine/general surgery/GP career path.
Advice I've received is just informal that comes up in conversation with other doctors and peers. I haven't received any formal careers advice.
From doctors who said to do as much research/other stuff at medical school, so that I have a good CV for later on in life.
Choose a specialty – not one where the exciting cases make you choose it, but one where you feel you could cope with the mundane day-to-day presentations.
PRHOs
First hand experience and information from senior colleagues eg SHO, Registrars.
To choose a specialty early and one you really enjoy.
Do an SHO A&E post if you don't know what you want to do as a good general experience.
Take your time, there's no rush to decide. Make the most of experience gained now.
Doctors
Get a particular job for a specific consultant => patronage.
Choose your career by how prepared you are to do on-call for the rest of your working life.
(To be confirmed when/if I get an SpR NTN) To take two years out to do a MD.
Told to become a GP because I was not aggressive enough to make it in hospital medicine.
Get your NTN before you have babies and then go flexible.
Go work in Australia. Complete SHO rotation for GP training overseas.
To do what makes me happy and not try to please anyone else.
To choose a career that balances work and home life.
All career advice I have received has been aimed at different general medical careers – consultants find it hard to give unbiased advice.
How the system works in the UK for doctors.
Keep options open. MRCP is a good baseline training. Don't apply for jobs you don't want.
Mainly has come from my own experience and listening to how my colleagues of same grade and above are finding their work.

Source: Medical Career Advice and Guidance Survey, 2001

7.3 Most useful advice

Respondents were asked a number of additional open ended questions about the career advice and guidance they had received. These included the most useful advice received while training to be a doctor and the source of that advice.

Overall, just under three-quarters (73%) of respondents replied to this question and a sample of their comments is shown in Table 7.3. It gives a small snapshot of the diverse range of comments made by respondents.

The main source of useful advice was senior doctors (*eg* Consultants, GPs, Specialist Registrars) who were mentioned by 61% of respondents who answered this question, followed by peers, colleagues and friends

(mentioned by 27%), lecturers, trainers and tutors (mentioned by 12%) and people in supervisory roles (mentioned by 6%).

7.4 Where go for advice

Respondents were also asked who they would speak to if they wanted some career advice now. The pattern of replies is very similar to that noted above. Most would go to senior doctors (mentioned by 54%), peers, friend and colleagues (mentioned by 26%), lecturers, trainers and tutors (mentioned by 21%), people working in that career (mentioned by 9%) and people in supervisory roles (mentioned by 6%). However, 11% of respondents reported that they did not know who they would go to for advice.

Although there is some variation in the proportion of different groups of respondents who would go to different people for advice, the relative order with which they were mentioned did not change. There were, therefore, no consistent differences between respondents by career stage, gender, ethnicity or nationality in terms of where they would go for career advice.

7.5 Effect of lack of advice

Respondents were also asked whether lack of advice had led them to make decisions in their training that they now regret. 17% of respondents reported that lack of advice had led them to make decisions that they now regret and a further 5% said that lack of advice had possibly led them to make decisions that they now regret.

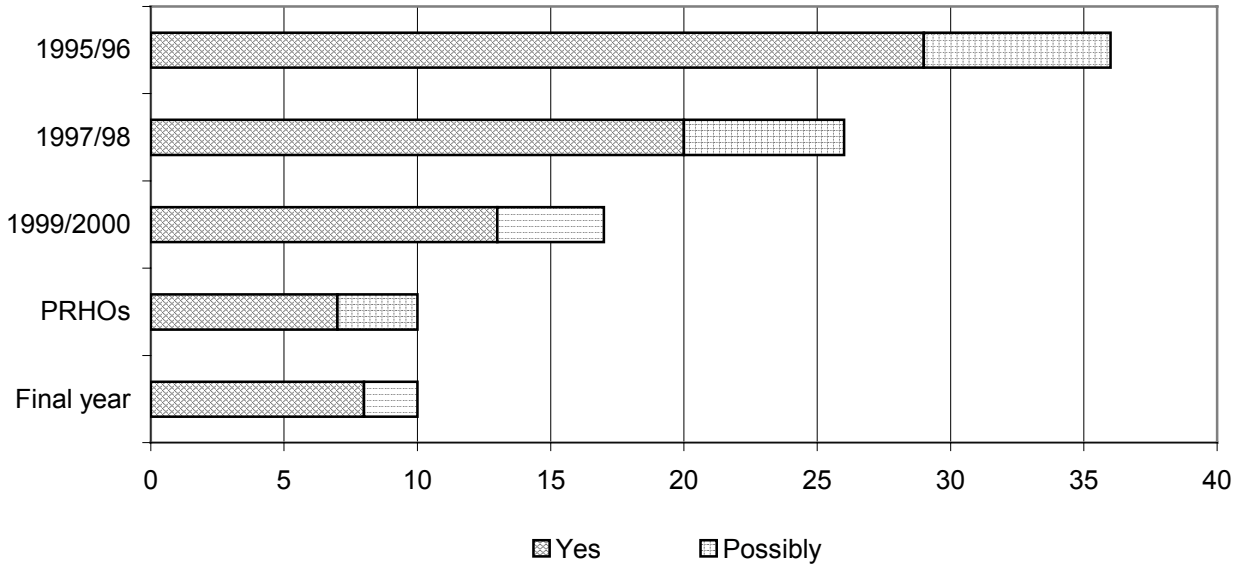
Respondents who regretted a decision were more likely to have rejected a specialty. 69% of respondents who reported that lack of advice had led to a decision they now regret had rejected an area of medicine that they had previously seriously considered compared to 53% of those with no regrets as a result of lack of advice.

The proportion who said that lack of advice had or possibly had led to decisions in their training they now regret increases across the year groups (see Figure 7.3). While only 10% of final year medical students and PRHOs reported that lack of advice had, or possibly had, led to decisions they now regret, 36% of the 1995/96 cohort report that it had.

Among UK respondents there is a trend for female respondents to be more likely than male respondents to report that lack of advice had had an effect on their decisions. However, the trend was more marked for respondents from minority ethnic backgrounds of both sexes (see Figure 7.4). Somewhat surprisingly, there were no differences between and UK and overseas doctors in response to this question.

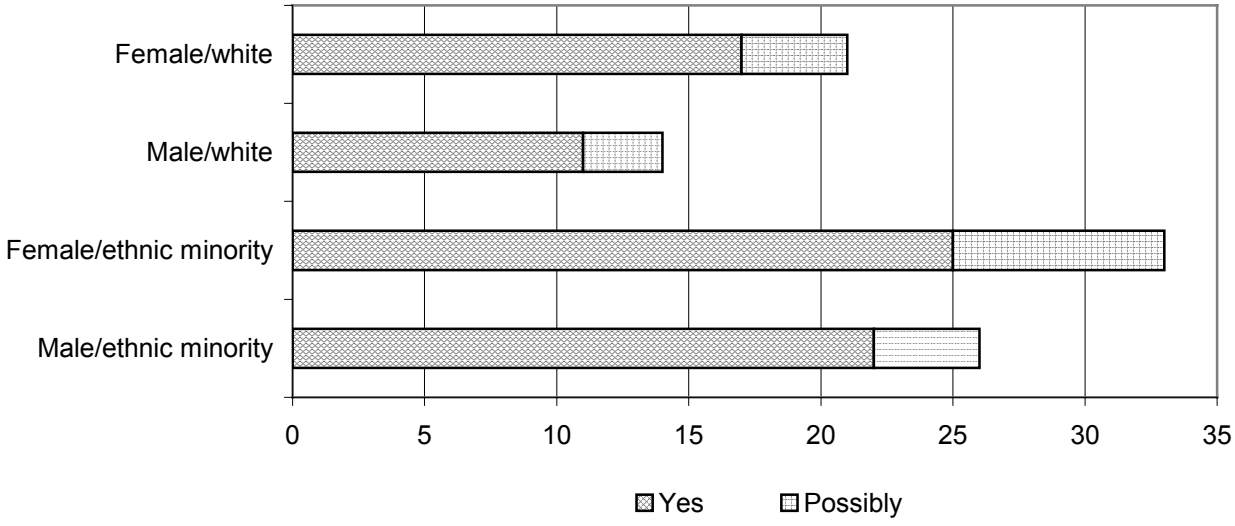
Respondents who fall into the not satisfied group on the satisfaction with career decision-making scale were even more likely to report that lack of advice had had an effect on their decisions with 57% of this group saying that lack of advice had had an effect on their decisions compared to 16% of remaining respondents and 13% of this group saying that it possibly had compared to 5% of the others.

Figure 7.3: Percentage reporting negative impact of lack of advice on training decisions



Source: Medical Career Advice and Guidance Survey, 2001

Figure 7.4: Percentage of UK respondents reporting negative impact of lack of advice



Source: Medical Career Advice and Guidance Survey, 2001

A wide range of issues that respondents would have liked to have had advice about were mentioned. These ranged from lack of career advice at school about what being a doctor involved to lack of advice about the advantages of doing an intercalated year, or getting an article published or winning a prize while at medical school. Other issues mentioned by several respondents included advice about jobs and options at the SHO stage, issues related to when to take exams, and getting exposure to some specialties earlier in their career.

7.6 Summary

This chapter has reviewed respondents' use of different sources of career advice and guidance and sought feedback on the usefulness of different sources of advice and information. It shows a clear trend for respondents at all levels to look for advice within the profession and via informal rather formal contacts and that some existing interventions (*eg* career fairs) are not perceived to be all that useful.

A major concern must be the difference in pattern of use of sources of career advice and guidance between overseas and UK doctors and between ethnic minority and other UK respondents. The findings suggest less access by overseas doctors, in particular, to formal sources of advice and guidance. Coupled with the earlier finding that these respondents have more career advice and guidance requirements, it suggests a concern about the extent to which existing provision meets their needs.

There is also consistent evidence that lack of advice has led respondents to make decisions in their training that they now regret. The proportion of respondents finding themselves in this situation increasing steadily across the year groups over time. Respondents from minority ethnic backgrounds and women, to a lesser extent, were more likely to report that lack of advice had had a negative impact on their decisions.

It is also apparent that respondents who were less satisfied with their current situation, as indicated by a lower score on the satisfaction with career decision-making scale, tended to rate the sources of career advice that they had used as less useful and to have had more regrets about the impact of lack of advice.

These findings suggest that there is a significant group of doctors in training whose needs are not being met by existing provision. In the next chapter, the medical school perspective on the provision of career advice and guidance is examined. This complements the findings that have been reviewed here.

8. The medical education perspective

It is important to look at the issue of career support from the perspective of those charged with providing it as well as doctors in training on the receiving end. The clearest focus for such support are the medical schools and postgraduate deaneries, and this chapter summarises a telephone survey of medical schools in England. It also draws on other interviews conducted with those concerned with career guidance provision and examination of a selection of websites and specialist career resources.

Each medical school was asked to nominate a contact person for the research. In several cases, the person nominated was from a postgraduate deanery. The views reported here are mostly from interviews with these nominated individuals, who either had responsibilities for undergraduate or postgraduate education. In some cases visits were conducted and follow-up interviews were conducted with those responsible for particular initiatives or relevant research projects.

Those interviewed were asked to comment on:

- Who is responsible for giving career support to medical students and doctors in training.
- How career information, advice and guidance is currently made available and how well this works.
- What they would like to see in terms of improvements in the area of career support to medical students and doctors in training.
- Other issues affecting the career choices of medical students and doctors in training.

8.1 People with responsibility for career support

In most cases there is a split of responsibility within medical education between undergraduate and postgraduate training, and these different functions can be in different locations. Occasionally, though, those who have responsibility for the career support of medical students also give some support to postgraduates, and there is increasing interest in more co-operation in this respect.

There is an underlying assumption that career support is best given by those with more general responsibility for a student's welfare and pastoral support. This positions career advice as something on the fringes of medical training rather than as part of the medical curriculum itself.

8.1.1 Deans of medical schools

The Deans and others in the Deans' offices were the most frequently mentioned focus for career support within medical schools.

At Cambridge, for example, two Associate Deans are responsible for career advice for final year students, and they also monitor the quality of PRHO posts, through twice-yearly visits. However, clinical tutors are responsible for discussing the PRHOs' career plans with them.

The split of responsibility at different phases in training means that career progression is not always adequately addressed and there is little continuity of career support.

Some medical schools work hard to co-operate across the undergraduate/postgraduate divide. Sometimes this is because of the personal commitment of one Dean to the issue of career support, but in other cases structures have developed to increase co-ordination. For example, at Nottingham, undergraduate education and training systems are linked to postgraduate systems through the PRHO committee.

Some Deans seek to ensure that every student has at least one conversation about their future plans at key transition points. Most medical schools seem to be much less pro-active about supporting the career plans of their students and assume that students will come for advice as and when they need it.

8.1.2 Tutors and varied others

In addition to the Deans and Assistant and Sub-Deans, other individuals in a wide range of roles have some responsibility for supporting medical students and doctors in training. These roles vary between medical schools and regions. There seems to be no consistent pattern differentiating the support structure for undergraduates as compared to postgraduates. The roles mentioned in the interviews included: clinical tutors, personal tutors, year heads and year tutors, education supervisors (attached to Royal Colleges), subject advisers (listed by Royal Colleges), teaching co-ordinators in Trusts, and careers advisers within university careers services.

These roles often appear to be unclear, and the individuals in them may be quite remote from students and doctors in training. It was quite unusual for students to be provided with clear descriptions of what all these people do and what role they might play in career advice.

Students were sometimes referred to the University Careers Service, usually if they had serious problems or were thinking of giving up medicine altogether.

Some of the career interventions described in the section below further widen the kinds of people available to offer career support.

8.1.3 Mostly busy clinicians

Most of the individuals with these responsibilities for career support - including the Deans - are busy clinicians who fit their postgraduate training roles into their busy clinical workload. Some of the most important

players in this system (eg Deans) may well carry out their clinical work in a different physical location from the postgraduate deanery and therefore be fairly hard to access.

In some ways the coupling of career support with medical roles is helpful as it ensures that those giving support are in touch with the reality of medical work and usually well networked locally and nationally within their specialty. The downside is that they are very busy, hard to get hold of, and may not know much about specialties other than their own.

Many of those interviewed took the view that the best information and advice comes from direct personal experience and talking to senior doctors in particular areas. One interviewee, for example, remarked that there is 'nothing like an enthusiast to sell a subject'. However, others noted that these same individuals are sometimes less than helpful, especially when they have 'a pull yourself together kind of attitude', and felt that some doctors may not be natural counsellors because of their need to 'take in information, analyse it and prescribe'.

The notion of career advice as 'selling the subject' is worthy of comment in itself. This perspective was also apparent at some careers fairs, where the emphasis was more on competition between specialties to attract doctors, rather than the provision of information to doctors to allow them to determine which specialty is likely to suit their skills, aptitudes and needs best.

8.1.4 Who to ask?

It is interesting to compare these structures for support with the survey finding that many doctors in training would like more advice from independent and impartial individuals, who are not necessarily doctors.

However, there was still a frequent assumption that a student in need of career support would come to the Dean's office to seek advice . Those interviewed felt this probably did happen when the student was in real distress or at risk of leaving medicine. They were much less confident that the Dean's office was a first port of call for students simply wanting more information or a chance to discuss their career plans.

Noticeboards, booklets, websites and other communication mechanisms also have potential to remind students of where they can go for career advice. They can also present information about some of the other career interventions described in this chapter.

8.2 Training for providers of career support

Several interviewees spoke of the need to provide training for those in career support roles. Institutions varied with regard to the training they offer people in career support roles. At Oxford, for example, supervisors of undergraduates attend a half-day course to train them in their role, which includes career advice. At the PRHO stage, educational supervisors at Leicester are briefed as to where they might refer doctors in training for career support. Leicester produces a handbook for educational supervisors which outlines the structure and requirements of the PRHO year, and is supplemented by training on the roles and

responsibilities of educational supervisors, supervision and mentoring, and assessment and appraisal.

Nottingham runs a series of courses for educational supervisors, consultants, college tutors and senior managers on counselling skills. These courses aim to help participants understand the nature of counselling and career advice, and how to access professional counselling and career guidance facilities for their trainees. The courses also cover ways of supporting trainees and other medical colleagues more generally, for example helping them manage stress and deal with conflict. These courses are regionally funded and are fairly cheap to run. Between 500-600 consultants have attended them in the last five years.

At Leeds, some individuals in postgraduate support roles have received training in counselling and appraisal skills. The West Midlands Postgraduate Deanery is training all its Associate Deans in advice and guidance, using a three level model: information; guidance; and counselling. They are also interested in defining competencies for those giving career support.

The Department of Postgraduate Medicine and Dentistry at Manchester have trained about 20 hospital doctors, GPs and other individuals to give career support. Details of this service are provided to students on the medical school intranet. Take up of this facility seems to be low so far.

Some interviewees offered views on the kind of person who should be offering career support, implying that some selection into this role should take place. For example, one felt that individuals in these roles should be 'someone who can get to know the students well, knows the type of person who would fit different specialties and is a good communicator.' She felt that interpersonal skills were crucial, but they also need to know the 'ins and outs' of different jobs, including life style aspects, and be able to help trainees relate them to their likes and dislikes.

The West Midlands Postgraduate Deanery is running an interesting experiment in comparing different kinds of advice-givers. Three models of career advice are being tried: (a) an HR professional offering career advice from a postgraduate medical centre; (b) a doctor seconded into a similar role in a second location and (c) formal training for all the Associate Deans (about 10 people) in giving career advice.

Several interviewees felt that there was a need for clearer directions about where to go for career advice at different stages of training.

8.3 Career interventions

In addition to the allocation of general responsibilities for career support, medical schools also carry out certain other activities designed to support career choice. These include events, information provision and more formalised access to networks of support.

8.3.1 Careers fairs

Careers fairs run annually or every two years are common. They are usually targeted at 4th and 5th year medical students, but some include 3rd years. In some cases, careers fairs are run for PRHOs (eg

Nottingham) and some medical schools run fairs jointly for PRHOs, SHOs and medical students (eg Leicester, Manchester).

At Leicester, for example, staff from the Deanery, the medical school and the BMA cover a range of issues (eg hospitals, general practice, public health, flexible training), and Trusts have stands, including those from outside the region.

At Imperial, there is a range of stands staffed by individuals from the medical school, and representatives from professional associations and Royal Colleges. Talks are given by staff from the Deanery and medical school and there are topical talks on career-related subject (eg working overseas).

At Manchester, the careers fair is aimed at 3rd-5th year students and PRHOs, but most of those attending are 4th and 5th years. Alongside the careers fair they run a hospital fair for those seeking PRHO jobs. The careers fair has stands of the 20 'big specialties' but not all the small ones. Some stands show videos and have equipment on display (eg endoscopes). There is a stand on the PRHO year generally. They prefer having doctors in training on the stands to talk to students rather than consultants. They also run 'mini-symposia' on specialities, with consultants talking about why they chose to go into this field (eg 'So you want to be an anaesthetist'). However, these talks are not always well attended expect for those in the main areas (eg medicine, surgery, paediatrics). They have recently tried to broaden some of the sessions to offer more career advice, rather than information and direction, helping students and trainees to start thinking about 'what gives them a buzz'.

In a number of these cases, the interviewees felt that fairs were more about 'waving the flag' from a recruitment perspective rather than giving people useful help. Several Deans were not convinced that careers fairs really help students engage in career thinking. They are expensive to run (Manchester quoted £10,000) and some of the Deans questioned their value. Some medical schools have stopped running them. Leeds, for example, has dropped them for medical students, but it has started running mini careers fairs for PRHOs on a geographical 'patch' basis.

Careers fairs are often organised in collaboration with the BMA and/or the Royal Society of Medicine (RSM). For example, Cambridge runs theirs with the BMA and the RSM in alternate years.

Some medical schools evaluate their careers fairs, but others do not. If the fair is seen as 'owned' by the BMA this may mean that the school is less likely to evaluate it.

8.3.2 Support networks

The general idea of linking doctors in training to more experienced doctors who can advise them on career choice has been extended in some places to take the form of networks of individuals who can be approached for information or advice.

Some networks are quite informal and consist of individuals on training committees or other people known to the Deans. Sometimes these informal networks include independent career counsellors in the local area who have knowledge of medical careers.

Some medical schools have set up more formal networks of lists of doctors (usually consultants) who are willing to give advice and support. Imperial College, for example, has a 'careers panel', whose role is to provide 'advice and guidance about working in clinical specialties or academic medicine'. Panel members are mainly experienced clinicians who are used to advising and dealing with undergraduates. The panel is seen as complement-ary to the guidance provided by personal tutors, other teachers and the careers service. The panel is linked to a careers website which provides information for students about training and other aspects of medical careers as well as access to external and internal information sources. For example, there are links to the Royal Colleges, professional associations and career websites.

Students are given guidance on how to conduct and get the best out of an interview with a member of the panel. They are asked to make a mutually convenient appointment with a panel member, and prepare for the interview by researching the specialty and reflecting on their strengths and weaknesses, likes and dislikes, and possible lifestyle choices. Pro formas are provided for this.

Panel members are asked to ensure that they have up-to-date information on their specialism, for example, training require-ments. Students' self-assessments should form the basis of the first part of the discussion, so as to set the scene of the kind of job they see themselves doing and to identify the lifestyle constraints that may make some specialties more or less attractive. The other main task of panel members is to provide guidance on day-to-day aspects of the job, advising on training requirements and career prospects. Advice may also be needed on how students can improve their prospects of obtaining training posts, for example by taking certain options in their undergraduate course, and by applying for certain PRHO posts. Panel members are not expected to offer direct work experience. They are not given any formal training, but are provided with a copy of the book 'So you want to be a brain surgeon?' (Ward and Eccles, 2001).

As mentioned earlier, the Department of Postgraduate Medicine and Dentistry at Manchester have trained about 20 people to give career support, including scientists, hospital doctors and GPs.

8.3.3 Career support agencies and networks

Those interviewed were aware of a number of more specialised providers of career support.

The Medical Women's Federation is an independent educational charity with three main aims: advancing the personal and professional development of women in medicine; removing gender barriers in the medical profession; and improving women's health by promoting good practice and encouraging research. Membership is open to female medical students, doctors in training, and qualified doctors. It supports female students and trainee doctors mainly through local associations, which offer advice and support on issues facing women doctors, including career guidance and opportunities for flexible training and part-time working. Support is offered on a one-to-one basis and also through group events. Fact sheets and newsletters are also provided, and these include information and guidance on career structures.

Each local association has a named careers adviser, but no training for this role is offered. The careers advisers act mainly as a source of referral and much of the help they offer is simply practical (eg childcare issues). It would appear that some careers advisers are rarely used, and some have only one or two formal requests for help each year.

Medical Forum is an independent service offering help with career planning to medical students and doctors. It is a 'virtual organisation' which provides e-mail based career management courses, career reviews, and career counselling (conducted either face-to-face or via the internet). Fact sheets are also produced. Titles include 'Career Change from Medicine' and 'Choosing the Right Specialty'.

The first point of contact for clients is the web site at www.medicalforum.com.

The two main courses offered are the Career Review Programme, and the Personal Career Programme. Individuals pay for these courses. The Career Review Programme comprises a career guide, a career review workbook and an audiotape. Feedback is given by a tutor on the completed workbook in writing and by phone or e-mail. Those who wish to proceed to the Personal Career Programme join one or two courses, choosing from over 20 which include 'Career Development', 'New Consultant/Partner' and 'Practice or Job Selection'. The courses are conducted either face to face or over the internet.

The Trent Career Guidance and Support Unit is funded by the NHS Executive. It offers personal counselling and career counselling mainly to postgraduates, but they also see others, including undergraduate medical students and experienced doctors. A few clients have left medicine and want help with re-entering the profession. It also provides training in counselling skills for consultants. It covers the whole of the Trent region and employs a staff of eight, all trained to Masters level in counselling. Clients are referred to the unit mainly by consultants, although there are some self-referrals.

The unit has built up a network of doctors who are available to refer clients to for information about different specialties. They also refer clients to a careers adviser from a local careers service company. They also have links to the postgraduate Dean's office, which has information on every specialty, and to advisers in the Royal Colleges.

8.3.4 Widening work experience in different specialties

One of the easiest ways to get a feel for whether a particular specialty may be a good career choice, is to work in it for a while. Several medical schools are attempting to expand the range of working experiences available to students and PRHOs to give them better exposure to the range of medical work and careers.

Birmingham, for example, are widening the 4th and 5th year curriculum so that students are able to choose from a broader range of options. Also, undergraduates in the later years of their course at Sheffield are encouraged to explore a particular career option in more depth through an attachment.

Southampton runs a wider range of 5th year placements for undergraduates than most medical schools. This covers medicine, surgery, general practice, obstetrics and gynaecology, mental health, paediatrics and another specialty of the student's own choice. In these placements students work on a one-to-one basis with a PRHO, working for one or two consultants so that they feel 'part of the team'. In each centre there is an undergraduate tutor appointed by the medical school who the student sees two or three times during their attachment. These tutors are practising doctors paid for by the Trust for one session a week to support students in this way.

One note of warning was offered by a medical school Dean who had found that sending students to under-staffed specialities (the example given was in psychiatry) created such a negative impression of working conditions that students were dissuaded from entering this field, thereby aggravating the shortage.

Some interviewees felt that it was important that work placements gave trainees exposure to a variety of people and settings within a specialty, since a demoralised group of doctors can bias the trainee against that specialty.

8.3.5 Career education within the curriculum

In general, little attention is given to career education within the medical training curriculum. The term 'career education' is used elsewhere in the education system to cover sessions aimed at helping students to make their own career choices, but also to describe the set of ideas and skills needed to manage careers throughout working life. Medical training tends to downplay the need for career education in this sense, assuming that doctors will intuitively know how best to tackle their own career issues. However, some medical schools have also run 2-3 day courses for prospective medical students to make them more aware of career options within medicine.

Several medical school interviewees commented on the difficulties trainees have in adjusting to their first house job, and felt that more could be done to prepare them for this. As part of its revised curriculum, Sheffield medical school is planning to run three professional development sessions a year (over three afternoons) for all undergraduate students. In later years some of these will cover career development. Tutors will work with the students in small groups and will also be available at the end of the afternoon for advice.

At Southampton, career issues are raised in talks that take place at key transition points. For example at the start of the 5th year there is a session for undergraduates about the PRHO year. Aspects of the PRHO year are also covered by St George's Medical School during a week-long series of sessions at the end of the 5th year. This covers surviving in house jobs (a session run by current house officers), contracts and pay, registration, complaints, log books and other career issues. Imperial runs a 'Personal and Professional Management Skills' programme which covers various aspects of careers and introduces students to the careers panel and to the website.

With regard to career education within the postgraduate curriculum, Leicester's weekly educational programme includes topics related to

careers, for example information on specialties. This gives trainees a good range of exposure to the different specialities, and they have opportunities to meet with representatives from the specialities after the sessions. At Leeds, the postgraduate Dean runs group sessions for SHOs during their educational monitoring visits. Some of these focus on helping trainees assess their strengths and weaknesses. Nottingham is developing a pack covering career information and broader life planning skills.

The need to encourage and empower medical students and doctors in training to seek career guidance was often mentioned. If career education programmes were developed further, they could usefully focus on encouraging trainees to develop proactive career management skills.

One of the advantages of more career education within the curriculum would be that it gives opportunity for more group work on career choices. Students may then talk to each other more helpfully about these issues and also gain more psychological support from their peers. The dominant model of individual students approaching senior doctors for advice downplays the potential value of group discussion.

8.3.6 PRHO matching schemes

Regional matching schemes are increasingly used to allocate students to PRHO jobs. This is done to avoid excessive time spent in individual applications and numerous interviews. At Southamp-ton, for example, there is a careers fair for 4th and 5th year students in the run up to choice of PRHO jobs. Each of the Trusts in the scheme do a presentation of the jobs they have to offer, and both doctors in training and consultants are available to talk to students on a one-to-one basis. Students then complete a form identifying their preferred jobs in rank order. The scheme then places them.

8.3.7 Mentoring schemes

Mentoring schemes exist in some medical schools, but not always with a strong emphasis on the career support aspects of mentoring. Some mentoring schemes have been short-lived experiments, abandoned after a while. Imperial is currently piloting a mentoring scheme for PRHOs and SHOs.

Given the strong interest in mentoring as a means of career support in other complex organisations (eg major companies, the Civil Service), it is interesting that it has not been widely implemented for doctors in training. Some of the respondents to the survey said they would like a mentor. The idea of mentoring as something that can stretch across a period of time would be potentially helpful in providing some continuity to career support across career transition points in medical training.

8.3.8 Self-assessment of skills and interests

The core assumption that doctors in training will 'pick up' information and advice from senior doctors and thereby make good career decisions, downplays the need for more in-depth thinking about career choice. In particular, it places little emphasis on self-knowledge as a key element in career planning. Several of the interviewees felt that doctors in training

needed more opportunities to assess their strengths, weaknesses and lifestyle choices in a safe and confidential one-to-one situation.

There seems to be considerable interest in developing ways to help students and doctors in training in these kinds of self-assessments. The postgraduate dean at Oxford, for example, is interested in the potential use of psychometric analyses (either in the form of tests or self-completion questionnaires) to help doctors make better specialty choices. Another suggestion was to use educational psychologists to help trainees assess their abilities and other qualities. Linked to this concern with self-assessment during training was the view that initial selection for medical school is relatively unsophisticated. The training methods in medicine have not focused heavily on reflective learning styles. The long hours worked by doctors in training may not be conducive to their attainment of a balanced overview of their strengths, weaknesses, and work preferences.

Several questionnaire respondents felt they needed more opportunities for self-assessment during their training. Some suggested that this should happen during appraisals and that self- assessment should be integrated with personal development plans.

Some medical schools are currently improving their appraisal and assessment procedures. Documentation for supervision, assessment and appraisal is particularly well-developed for the PRHO year at Leicester. The handbook for educational supervisors contains detailed guidelines for helping PRHOs review their achievements and negotiate new goals, as well as examples of a professional development plan and an individual development plan.

8.3.9 Paper-based career information

The West Midlands Postgraduate Deanery maintains a directory of regional training opportunities which contains numerical information on vacancies in each specialty and how much competition there is for training places (PMDE West Midlands, 2001). They also make all their data available on the PMDE website. No other institution contacted appears to offer this information. More centralised information seems to be available on medical posts in the West Midlands than other regions, although East Anglia has now produced a similar directory.

The Royal Colleges produce attractive, short leaflets about training for certain specialties. These are, however, geared more to providing information on the steps in training than as an aid to career choice.

Many medical schools and postgraduate deaneries have career information available in their libraries, postgraduate centres or careers offices.

One widely used book is 'So you want to be a brain surgeon?' (Ward and Eccles, 2001). This presents a one-page overview of each specialty including comments on the kinds of people it attracts and some possible career pitfalls. A page opposite in a set format for each specialty gives more specific information under a number of headings. These include: Myths and Reality, Personality needed, Best and Worst Aspects, Qualifications required, clocks showing working hours, daggers showing how competitive the specialty is and piles of notes showing salary.

Contact details are given for associations and professional bodies. Although presented with a light touch, this guide is full of useful information and something like it should be required reading for all medical students.

8.3.10 Websites

Accessing information via websites seems likely to help medical career support in a number of ways:

- Websites can be reached by doctors at any time and location - important when people are moving around during their early jobs.
- Websites can link to other websites and so route the user to other relevant information. This is particularly important when a lot of different bodies have information relevant to medical careers.
- Information put up on websites can be easily updated.
- Websites can combine different kinds of information and tools. For example, information on doctors who form local networks for advice can be put up alongside much more general information on the entry requirements for different specialities.

Medical schools, postgraduate deaneries and Royal Colleges have not been slow in seeing the potential of the web technology to deliver some of the career support doctors need.

Nearly all of the Royal Colleges have websites with some career information. Some of these sites are more comprehensive than others but they typically include information on how to get into specific specialties and what is it like to work in this area (usually quite limited). Some provide lists of tutors and more specific information (eg on part-time training options).

Medical schools and postgraduate deaneries are also using websites to make career information available to medical students and doctors in training, often on password limited sites, and sometimes on an intranet rather than an external internet site.

Such sites were found, for example at Southampton, Manchester, Oxford and Imperial, but this is clearly a rapidly evolving area. Early sites have included information on local contact points and links to the Royal Colleges and other bodies with information.

The Imperial website, for example contains three interlinked types of information:

- A Careers Directory with a short page of information on each specialty in terms of training times and requirements with links to relevant professional bodies.
- The Careers Panel giving names and contact details of careers panel members in each specialty in each hospital.
- 'How to get a job' which contains information on preparing a CV, going for a job interview, *etc.*

Such initiatives are to be welcomed and raise three issues for the future:

1. Is it really efficient or effective for each medical school/postgraduate deanery to be setting up and designing their own website? Would national development work be helpful in terms of providing frameworks for local career information and also making available relevant national information?
2. Given that medical schools/postgraduate deaneries signpost students to Royal College websites, should these hold much more in-depth career information than they currently provide?
3. Might web-based approaches extend into self-assessment and career planning frameworks as is happening in companies (*eg* Lloyds TSB, Nationwide, Nestlé)?

8.4 Views on the need for career advice

The interviewees were asked what kind of career advice medical students and doctors in training needed. The common themes which arose included:

- The need for advice as and when relevant and needed. In particular students need advice relevant to the transitions they experience in different years of their training.
- Provision at present is very *ad hoc*. There was a preference for provision to be more structured, in terms of greater clarity about what is delivered by whom and when.
- Some of this should be delivered through the curriculum in medical schools, but it needs to be progressive in the sense of building career planning skills over time as the students gain greater knowledge about medicine as a field of work .
- There is particular concern that doctors arriving from overseas and those in 'non-career' posts need career support but do not have access to any person or centre responsible for giving this.
- Some of those interviewed would like to see some advice from independent advisors who are not seeking to influence the students in any particular way and who have specialist skills in career counselling. University career services sometimes offer this service, but may not always have an in-depth understanding of medical careers.
- Some wished the career learning from work placements to be more thoroughly discussed to encourage students to reflect on what they learned about their career preferences in addition to improving their medical skills.
- There is a perceived need to deal more effectively with the informational aspect of career advice in medicine. For example, Royal Colleges give good information on how to get into various specialties but may not say much about the day-to-day experience of working in a field. Students also need to be aware of the lifestyle implications of their career choices and the relative competition for training places. So information is multi-dimensional and not all advice givers can deal with all these dimensions.

The overall impression is of a willingness to innovate in principle but, perhaps, a lack of awareness of how best to take initiatives forward.

8.5 Other issues affecting career choice

The interview study also raised a number of other issues of relevance to career choice but not confined to it.

Workforce planning or rather the lack of it was the source of immense frustration. Given the very long training times at every stage of the medical career, doctors who cannot then find work in their chosen specialty face very painful decisions. These problems are acute in specialties where there have been large mismatches of supply and demand (eg obstetrics), but occur in a smaller way all the time. One Dean commented on a very promising young eye surgeon who was forced to move into another area altogether by what was, in essence, a short term blip in posts available in this specialty at registrar level.

There is also often a lack of fit between the training posts available at lower levels and the long-term flow of people needed to come through to consultant. So some specialties have small numbers of SHO posts which restrict the flow of trainees even when there are shortages of consultants.

The fragmentation of responsibility for fixing the number of posts in each specialty at each career level militates against a manageable career structure on the ground.

Deans are increasingly concerned about the longer-term attractiveness of medicine as a career, especially compared with sectors such as Finance. Medicine has perhaps been complacent in assuming that enough of the UK's most able school leavers will want to become doctors. This is not just about salary levels. The persistent inability of medicine to tackle its erosion of family life is an ever-increasing concern and seen as one of the main inhibitors to attracting and retaining good doctors. It is strongly reflected in the real experience of the doctors in the survey.

Career support lies, as we have seen, with the Deans of medical schools and their colleagues in postgraduate deaneries. Medical schools report difficulty in filling teaching posts and in finding people to take on the pastoral roles of tutor, year head, etc. Operational medical work and research both have much higher status than medical teaching. There is nothing much in the present system to reward doctors who take trouble over the training of the next generation or find the time to offer sound career advice.

8.6 Summary

In summary, then, medical schools and postgraduate deaneries are aware of the poor provision of career support to doctors in training. Some interesting initiatives are undertaken, but the system is very fragmented and poorly resourced.

- It is not known how many doctors in training make poor career choices. Interviewees are fairly confident that the present system deals adequately with students and doctors in training in real crisis, but do not know how many find their way into jobs they do not like and which may not use their skills to best advantage. This leaves them feeling uneasy about the whole issue of career advice.

- The current system of career advice relies mainly on one-to-one support by medical schools/postgraduate deaneries and access (formally or informally) to senior doctors in varied specialties. This system is very fragmented and confusing. It is seldom communicated clearly to students or doctors in training and those offering advice may or may not be trained for this role. It is not 'joined up' across the various stages of medical training.
- Careers fairs are probably the commonest career intervention run by medical schools, although no one is convinced that they are an effective mechanism for giving career information and advice.
- There is a need for more structured career education within the curriculum of medical schools linked to work placements and key career transitions. The subject of career choice is given very low priority at present within the curriculum.
- Medical schools and postgraduate deaneries see the potential of better and more accessible career information. Web technology is clearly of great potential here, but at present huge duplication of effort is occurring. This is an area where some national investment would be much welcomed.
- Information on likely demand for doctors in different specialities is not available in most parts of the country. There is no easy access to data which would present a good overview for doctors in training of the position both nationally and in their region.
- There do not seem to be good tools in use in the UK for students or doctors in training who wish to take a more objective look at how their skills and personality would match the requirements of different specialities.
- The poor track record of planning medical posts at specialty level adds great stress to, and wastes time in, the already complex problems of choosing a career direction within medicine.

9. Developing a strategy for medical career support

The research set out to develop an understanding of the career behaviour of doctors in training from the doctors' perspective. This was achieved through conducting a national survey of final year medical students and doctors in training. The views of providers of career guidance and policy-makers in the field of medical education were also sought, not only to generate contextual information that could be used to frame the survey findings, but also to ensure that issues affecting the development of existing career support were well understood. In this final chapter the main findings from this research study are reviewed and the issue of how best to develop a strategy to provide career advice and guidance for medical students and doctors in training is discussed. The main conclusion is that, building on elements of existing practice, a more proactive and educational approach to medical career advice and guidance is required.

9.1 The need for improved career support

9.1.1 Dissatisfaction with existing career support

A major finding from this research is the considerable dis-satisfaction with existing career advice and guidance provision. Over half (55%) the survey respondents reported that they were quite or very dissatisfied with the career advice and guidance they had received with only 14% reporting that they were quite or very satisfied. This dissatisfaction with existing provision is reinforced by many additional comments written on the survey question-naires which spoke of the difficulty of getting advice and by the fact that one in six respondents reported that lack of advice had led them to make decisions in their training that they now regret.

This last finding on its own understates the seriousness of the situation as the survey found that more experienced doctors were more likely to have regrets and were also more dissatisfied with their career decision-making. Nor should this finding be taken to indicate that things are getting better for younger cohorts. Final year students were the most dissatisfied with the career advice and guidance they had received. Rather the survey indicates a cumulative negative impact of lack of effective career support especially at the post-qualification career stage.

These results confirm the evidence from previous research (Allen, 1988, 1995) which has consistently called for more and better career advice and guidance provision for medical students and doctors in training. However, this study has extended previous research by seeking to identify some of the consequences of lack of advice. Also by exploring the current career situation of final year medical students and doctors in training, it seeks to understand the factors that shape their career choices and to relate these to their training and early career experiences.

9.1.2 Concerns over work-life balance

In common with other research (Winter and Jackson, 1999) which has looked at what motivates young professionals, this research has found that achieving work/life balance is a major influence on the career choices of doctors. Although factors intrinsic to the work itself, such as job satisfaction, interest and challenge, are extremely important to doctors when making their career choices, the factors that limit and constrain career choices are those to do with working conditions (*eg* hours of work) and the ability to manage and control the work/life boundary. There are also strong feelings among survey respondents that their work is not valued, is not under their control, and takes place in a poor physical environment.

The importance of these factors in shaping career choices should not be ascribed simply to the increasing proportion of women in the profession. It is not just a women's issue. Balance between work and home life is extremely important to men as well, although there are significant gender differences in the response of men and women to their career situation. Opportunities for flexible working are more important to women and undoubtedly shape their career choices, for example, encouraging them to choose general practice over many branches of hospital medicine.

This issue of the long working hours for doctors in training has been in the public eye for a long time. Anyone embarking on a medical career will be aware of it. However, if issues to do with work/life balance were seriously tackled, it is likely that the intrinsic factors that motivate people to work in medicine, such as the job satisfaction, the worthwhile nature of the work, would become more important factors in attracting people into the profession and more significant in their influence on doctors' career choices. One part of the strategy to improve work/life balance should be an attempt to minimise the need for doctors in training to move geographical location during the SHO years.

9.1.3 Inequality of opportunity

There is a widespread perception among the survey respondents that careers in medicine are not pursued on a level playing field. These views are held particularly strongly, but not exclusively, by certain groups of respondents, for example overseas doctors and UK doctors from minority ethnic backgrounds. These two groups also seem to have less access to the largely informal support networks that are currently the main sources of career advice and guidance.

Other groups can also feel like second class citizens in the current training system, for example those on GP vocational training schemes and those, mainly women, looking for flexible training opportunities. Other research being conducted as part of the Department of Health's Improving Working Lives research programme is looking specifically at the situation of overseas doctors. It will be interesting to see if it comes to similar conclusions.

The research has also identified particular concerns about appointment procedures at the SHO grade and selection for Specialist Registrar training. Both these issues were of particular concern to overseas doctors and doctors from minority ethnic backgrounds. However, PRHOs were also very dissatisfied with SHO appointment procedures, perhaps

reflecting a contrast with the more systematic procedures being introduced in many localities for PRHO appointments.

Appointment processes have major consequences in terms of access to training opportunities. It is inevitable that it will be more competitive to enter some areas of medicine than others. However, when doctors in training are consistently told (for example, by leading Royal Colleges), that shortages are anticipated in even the most competitive specialties, such as surgery, it is not surprising that some respondents feel their inability to get an NTN is a result of unfair treatment. This is not necessarily because of unfairness in the selection process. It may well be that lack of advice and guidance about required or preferred training and experience has led some doctors in training to be ill-prepared for a particular career pathway.

These feelings appear to be aggravated by lack of information on the availability of training opportunities and lack of transparency in the process of allocating NTNs, both of which make any attempt at personal career planning inherently more unpredictable.

Concerns about SHO appointment procedures suggest that there are good reasons to consider extending PRHO matching schemes to SHO appointments as part of a process of offering more structured training at this level.

9.1.4 Disappointing training experience

It appears that the training system, especially at the SHO stage, is under strain. This may be partly a result of the way the Calman reforms are being operated but is also a consequence of other changes, notably the working time directive, that are currently in the process of being implemented. The survey finding that doctors in training feel they are not getting the opportunities to train or to develop the specialist skills that they expected is a serious concern, especially at a time of doctor shortage. Nearly two thirds (63%) of doctors in training were dissatisfied with the balance between education/training and service provision. In addition, only 8% of SHOs experienced opportunities to train and develop to a great extent and only 12% of SpRs and Clinical Research Fellows experienced developing specialist skills to a great extent.

Other symptoms of problems with the training system are the length of time that some respondents have spent at the SHO stage and the proportion (one in six in this survey) of Specialist Registrars in temporary or locum positions. The survey data suggest that as many as one in seven UK doctors are spending five years or more in the SHO grade and that around a quarter of overseas doctors may be spending this length of time as SHOs. It is clear also that many survey respondents, and women in particular, are put off training in certain specialities because of the lack of flexible training opportunities.

Changes to the SHO grade are being discussed that may lead to a more integrated system of training. The survey findings provide further evidence of the need for a rethinking of the training system at this career stage.

However, the issue about whether PRHOs and SHOs, in particular, are getting the sort of advice and guidance that they need about choosing

career pathways at the SHO stage remains. It is usually clear what rotations SHOs should pursue, if they know exactly what they want to do. However, for doctors who are undecided, advice about how best to keep their options open, or how to gain the best range of experience to put them in a position to make an informed career choice appears to be less readily available. The fact that so many SHOs are spending such a long time at this career stage may be, in part, a reflection of the degree of competition to enter certain specialties but also suggests that some are adopting a trial and error approach to exploring different specialties. Such an approach is costly both to them and to the NHS in terms of the time it will take them to become qualified. Such a strategy also probably reduces their chances of entering many specialties. There is, therefore, a need for a more readily available source of independent and impartial advice to doctors at this career stage.

9.1.5 Weak structures for career advice

The questionnaire survey and telephone interview study provide a consistent picture of existing career advice and guidance provision. The survey findings indicate that most career advice and guidance is delivered informally by senior doctors, more experienced peers and the respondents' own peer group. Support from those in formal positions, such as Postgraduate Deans Offices or tutors at medical schools, was not a major source of advice and guidance among survey respondents, although these structures are supposed to be a major part of the existing provision. Those interviewed recognise that these structures are not effective in supporting the majority of medical students or doctors in training. Existing structures cannot easily reach or support doctors once they become SHOs, especially those with less contact with teaching hospitals.

Careers fairs are probably the commonest career intervention run by medical schools but there is little evidence they are an effective mechanism for delivering career information and advice. However, they probably have a more significant role in recruitment.

In the light of these findings, initiatives to develop support networks of senior doctors who can advise doctors in training on career issues are a particularly promising form of initiative. However, simply setting up lists of names with contact details is unlikely to be enough to encourage students and doctors in training to seek such advice. Those lacking in confidence to approach a senior doctor under the current informal system may not find it easy to use such networks without further career education to set them on their way.

The survey found that final year medical students and doctors in training have extensive career advice and guidance requirements with nearly all respondents having some unmet needs. It is clear that doctors in training and medical students not only need much more information about all aspects of medical careers but also the opportunity to conduct self-assessment of their strengths and weaknesses, and the opportunity to discuss and review their career plans. The whole issue of 'fit' between different types of personality, aptitude and interest on the one hand and medical specialty on the other is an obvious issue but one which has not been tackled in practice in the UK.

Medical students and doctors in training also need route maps that signpost where they might obtain information, advice and guidance at the different stages of training. Although useful career information is starting to be made available on the web and via the internet, much existing development appears fragmentary and incomplete in critical respects. For example, much of the information on specialties is about how to train in them, not what they are like to work in. One serious omission is the lack of national data on NTNs. Even at regional level, opportunity information is mostly lacking. Unfortunately, development at present is duplicating much of the existing information and not plugging the crucial gaps.

9.1.6 Fragmented responsibility for career support

A major issue affecting the development of career advice and guidance services for final year medical students and doctors in training is the fragmentation of responsibility for these activities between medical schools, postgraduate deaneries, Royal Colleges, trust managements, clinical directorates, the BMA, the GMC, the Department and others.

There is not only fragmentation at a national level but also at a more local level between the key players at different career stages, *eg* between undergraduate medical schools and postgraduate deaneries. At the post-qualification stage, there sometimes appears to be fragmentation even in the same place at the same time. This makes it even more confusing for doctors to know who or where to go to for career advice.

This fragmentation limits the co-ordination of existing services and hinders the development of new ones. It means that there is no agreement about roles and responsibilities between the various organisations that could be taking initiatives in this area. It is likely to lead to both duplication of effort and the failure to provide essential career interventions.

9.1.7 Poor workforce planning and lack of integrated information on job opportunities

It appears that there is also a need to review existing workforce planning processes. In the light of three recent reports on doctor shortages (BMA, 2001b; Royal College of Surgeons, 2001; Royal College of Physicians, 2001), one must question whether NTN and other workforce planning targets are being set appropriately. This is a major challenge for the Workforce Numbers Advisory Board that has now replaced the Specialist Workforce Advisory Group (SWAG).

Improving medical workforce planning not only requires better demand forecasting, but the basic premises upon which the workforce is modelled need to be revised to take into account the changing nature of the medical workforce. Doctors will be working shorter hours and have less continuous careers than was the case ten years ago. There is likely to be a continued increase in part-time working, given the survey evidence of unmet demand for greater flexibility in working arrangements from both men and women.

The fact that some of the earlier recommendations from SWAG were not funded almost certainly aggravated some of the career bottlenecks that now appear to exist. Workforce planning processes can also be criticised

for leading both to shortages and surpluses in different specialties, and seem to be at variance with predictions from the Royal Colleges. In the past, SWAG was also criticised for the year to year variability in the number of training places offered in different specialties. This can lead to potentially good candidates being unable to get an NTN one year when they would have been successful in other years. This is a particular problem in some of the specialties that are smaller in numerical terms.

It is also surprising that no national figures are routinely published on the number of training places being offered in the various specialties. This makes it very difficult for doctors in training to estimate the degree of competition for SpR training in different disciplines. This was a major concern in the survey findings. As it can take several years to pass exams required as a prerequisite for entry to higher specialist training, unless there is some degree of continuity in the SpR training opportunities, it is impossible for doctors in training to plan ahead. They risk committing to career plans that will take several years to come to fruition, perhaps involving completing a higher degree, without any certainty about whether there will be a SpR training opportunity available. The fact that one in six SpRs among the survey respondents were in temporary or locum positions is a further indicator that the system is not working as intended.

9.2 What does career guidance involve?

It is important to realise that any form of career guidance provision needs to be strongly linked to the way in which doctors are trained. Career choice will always be heavily influenced by training experiences and it is vital to make best use of training opportunities to inform and enhance career choice. If the training programme changes, many aspects of the career guidance provision would have to change as well. This means being clear about the underlying purposes of possible career interventions, including training itself, that are designed to assist individuals develop and implement career plans.

One widely used framework for thinking about career education and guidance that is widely used in education is the DOTS model (Law and Watts, 1977) with its four components of:

1. Self awareness
2. Opportunity awareness
3. Decision learning
4. Transition learning

Underpinning the DOTS model is a proactive approach that is essentially educational in its rationale. This can be contrasted to the diagnostic and advisory approach that implies that people only need career advice when they have a career problem. In organisational settings, this model ‘emphasises education and self-help as the most appropriate ways of empowering individuals to take control of their careers’ (Jackson, 1990). The proactive approach also recognises that there are a wide variety of potential career interventions that can be used to assist individuals or groups to acquire and develop the skills they need for personal career management. The challenge is to develop a network of interventions that mutually support each other. In the medical context, it also means

countering the fragmentation of responsibility that bedevils existing provision.

In terms of what a set of career interventions ought to be trying to achieve for individuals, Hirsh *et al.* (1995) have suggested that there are five broad objectives that underpin individual career development. These also help to achieve organisational career development objectives through meeting the organisation's needs for skilled people, something which is particularly critical in the NHS. The five objectives are:

1. Self-assessment: assisting the individual to learn about their strengths and weaknesses, areas of interest and so on.
2. Exploring career options: helping individuals understand their current and future training, career, and job options.
3. Action planning: formulating an action plan for their own career and skill development and modifying this over time in the light of changing circumstances.
4. Skill development: training and work experience to promote skill development.
5. Job access: making people aware of how entry to work and training opportunities operate and giving individuals the skills required to manage that process.

Many career interventions and, in particular, training fulfil more than one of these functions and this is one reason why the development of a strategy for career advice and guidance provision needs to be considered in the context of the training system that underpins it.

9.3 A strategy for medical career advice and guidance

9.3.1 Positioning career support as part of medical training

Compared with the models outlined above, much of the career advice and guidance that is offered to medical students and doctors in training is essentially tactical. It is focussed on how to cope with and navigate around the constraints and difficulties of the existing training system. This need will not go away. There will continue to be a requirement to offer career support to those who are disadvantaged under the current system or who are having difficulty with their career planning. The existing system also sees career advice and guidance as part of pastoral provision rather than an integral part of the education and training process. This marginalises its place in the medical curriculum and reinforces the view that only those students 'in trouble' need career help. The fragmentation of responsibility for existing provision also inhibits the development of a more co-ordinated and coherent approach to career support.

There is a need for a more proactive and educational approach towards career advice and guidance provision. The current assumptions about career support for doctors appear to be:

- that most doctors find their way satisfactorily through the system
- that they do not need a thorough overview of their career options – they will find their way to a specialty that they will like

- that they will develop career management skills naturally.

However, the survey findings show that doctors do not know about the full range of career options and that they often regret their choices. The existing model is an extreme form of self-help with a kind of stiff upper lip attitude to seeking help. It is very out of date compared with emergent practice in business organisations and elsewhere in the public sector.

In contrast, the proactive and educational approach advocated here would aim to ensure that, starting at medical school, there is a systematic attempt to equip doctors in training with the career management skills and information they need to manage their own careers.

9.3.2 Key elements of such provision

An overall strategy for career advice and guidance needs to have several elements. Critically it requires interventions to enable individuals to:

- Develop career management skills
- Understand their interests and appraise their strengths and weakness
- Develop action plans for their career development and make more informed career decisions.
- These interventions need to be underpinned by a variety of forms of career information (*eg* about career options, career paths, training requirements, levels of opportunity).
- The existing informal support mechanisms, which are the main vehicle for on-going career support, need to be enhanced.

The sections below outline what each of these elements might entail.

9.3.3 Developing career management skills

The survey suggests that, in general, existing lectures on medical careers are not seen as very useful by medical students. While there is undoubtedly considerable variation in terms of what is offered by different medical schools, there is a need to embed career education to a greater extent within the curriculum, so that career learning takes place alongside existing education and skill development. In order to do this effectively, it is important that career education is progressive and timed to be relevant to decision-making. It also needs to be an active not a passive process, for example, using participatory processes such as workshops rather than lectures. Such interventions need to be delivered by knowledgeable, skilful and committed individuals who are familiar with good practice frameworks.

Chapter 8 outlined a number of initiatives in medical schools that are starting to adopt this approach to some degree. This is, therefore, one example of an area which would benefit from greater sharing of existing experience between medical schools and some systematic piloting of more imaginative approaches.

Self-help career materials and books can provide useful support in teaching the skills that individuals need to manage their careers. The possibility of using some of these alongside educational interventions

could also usefully be explored. Web-based career education materials could also be developed for independent study.

9.3.4 Self-assessment of skills and interests

Although there are number of self-help books on medical careers, there is a need for more structured self-assessment materials to help students and doctors in training evaluate their suitability for different areas of work and to assist them in reviewing their career decision-making. While doctors in training do get some useful feedback from the senior doctors and consultants that they work for, sometimes this lacks objectivity and may vary considerably in its quality.

There are examples of inventories and other related interventions that have been developed elsewhere, notably in the USA. While the structure and nature of medical practice in the UK means that these instruments could probably not be adapted for use in the UK easily, it would not be difficult to construct similar self-assessment material for use in the UK context.[1]

Such materials could be made available in a variety of ways. They could be used as part of career education initiatives (as above), incorporated in career workbooks, or made available electronically on the web.

Although many students and doctors in training will be able to assess their interests and abilities directly from personal experience, structured self-assessment has other benefits. It develops career thinking and widens awareness of issues to consider in career decision-making.

9.3.5 Facilitating career decision making

The outcome of career planning should be an action plan to help guide and direct training and development to ensure that it meets the individual's career objectives. Typically, an action plan may include short and long term objectives, and there will be some degree of flexibility with regards to timing. However, action plans help individuals clarify and prioritise what is important to them.

Many self-help career workbooks include exercises to help develop and record action plans. Training logs can also be adapted to incorporate a record of actions planned and achieved, and personal reviews used to assess progress.

Formulating an action plan usually benefits from discussions with other people. The ability to discuss career plans with others offers the opportunity to get feedback on the realism and feasibility of plans, as well as to gather relevant information about training requirements and job opportunities, for example. The issue of action planning is, therefore, closely linked to the development of improved informal support networks and, more generally, to the quality of supervision of training.

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[1] Sci45 Speciality Choice Inventory is a recently developed measure designed to help doctors in training with specialty choice. First published in January, 2002. it is available in hard copy or on CD ROM from the Open University (Price £350).

Some students and doctors in training will require more in-depth one-to-one advice and support than currently offered. Locating a suitable focus for such support is problematic in the current structure. The Royal Colleges could usefully provide a clearer contact point for career advice, as opposed to training information, although this will inevitably focus within the specialties they each cover. NHS Trusts are unlikely to provide in-depth career support. A better option might be for the existing role of medical schools to be extended in two ways: (a) through a full or part-time post for someone properly skilled to offer career support and (b) by extending their remit, in collaboration with postgraduate deaneries, to SHOs working in their geographical area as well as medical students and PRHOs. Some of the current experiments in career support might help determine whether one-to-one support should be given by a doctor with significant career guidance training or by a career guidance professional with a good understanding of medical education and training.

9.3.6 Enhancing informal support networks

Informal career support delivered through personal networks is the dominant model through which most career advice and guidance is currently delivered in medicine. Other research (Hirsh *et al.*, 2001a) confirms that there is widespread use of informal career discussions in other work settings. Several initiatives have been put in place to enhance the career counselling skills of doctors so that they are better equipped to give career support and advice to doctors in training.

These should be extended and experience from existing initiatives shared to foster learning and development. At present, it appears that most energy has been put into training programmes to develop the support and advisory skills of senior doctors, the givers of advice, but it may also be worth considering how to prepare doctors in training, the receivers, better to seek advice and guidance. Hirsh *et al*. (2001b), for example, have prepared some guidelines to enable both givers and receivers of advice to conduct career discussions more effectively. The intention of such initiatives would be to encourage doctors in training to seek informal mentoring support.

Career mentoring might be best carried out by doctors who are not necessarily tutors but rather by individual doctors who are in more independent roles, perhaps a doctor working in a field of interest to the doctor in training.

There is also an issue about whether formal mentoring programmes should be established targeted at those most disadvantaged through lack of access to networks, *eg* overseas doctors, doctors from minority ethnic backgrounds.

9.3.7 Providing adequate career information

A wide range of information is required to support all the career planning activities above. This is especially so in a career structure as complex as medicine. It is clear that, at present, there is no single source that can provide it all. A range of bodies should take responsibility for providing different elements of this information, for example, the Department should take responsibility for providing workforce planning information and details of the number of NTNs being offered in the various specialties.

Royal Colleges and the GMC should take responsibility for providing detailed information about training requirements, Medical Schools and Postgraduate Deaneries for providing local contacts and so on.

There is a gap at present of detailed information about working (as opposed to training) in different specialties. This could be filled both nationally and locally, and both through written information and through increased informal conversations with working doctors.

Most of this information could be made available electronically. Ideally, an electronic portal should be constructed as a website which would allow individuals easy access to other websites (*eg* Royal Colleges, medical schools) containing relevant career information and further contact details. The development and management of such an electronic career portal might be one of the tasks suitable for national co-ordination.

9.3.8 The need for national co-ordination of effort

At present, responsibility for career support is extremely fragmented. Where innovation is taking place, for example in the provision of information via websites, there is enormous duplication of effort and big gaps in existing provision.

There is a need, therefore, to establish some mechanism to co-ordinate work in the careers area at a national level. This could be achieved in several ways, for example, by giving an existing body overall responsibility for this task, by creating a new organisation charged with co-ordinating initiatives in this area, or by setting up a body with representatives from all the relevant existing organisations to co-ordinate development. It is, however, particularly important that all the stakeholders have confidence in the impartiality and integrity of the organisation that takes on this responsibility. It must be seen to be independent and to be working in the interests of doctors, if it is to have credibility.

Different types of co-ordination are required in the different areas outlined above. For example:

Information provision on specialties and opportunities should be provided nationally showing local patterns and be made available nationally through the Department and Royal Colleges' websites.

Training materials for those giving informal career support and for curriculum activities for medical students should be delivered locally but would benefit from some national development work and sharing of good practice.

Self-assessment materials and tools to help doctors identify likely good career choices should be developed on behalf of the country as a whole by one or more development units with expertise in the field of career decision-making.

Such efforts should actively involve those already innovating in medical schools and postgraduate deaneries but bring the key national and local players together to share experiences and reduce development costs.

9.4 Summary of main suggestions

The main advice from this research is that a proactive and educational approach to career advice and guidance provision is required. This implies a fundamental change of mindset in the whole approach to career advice and guidance for medical students and doctors in training. We, therefore, suggest:

1. **A new role for careers education:** Careers education should become an integral part of the medical school curriculum so that medical students and doctors in training are equipped with the career management skills and information required to successfully manage their careers.

In addition, our specific suggestions are as follows:

2. **Improved career information:** High quality career information is required about career and training options including national data on training places. This information needs to be made available through medical schools, hospital trusts, the Royal Colleges and on the web on an open access basis. It also needs to be shared between all interested parties.
3. **Development of self-assessment and planning tools:** Tools to facilitate self-assessment and career planning need to be developed and used as part of the curriculum in medical schools and postgraduate education. Their development should be centrally funded by the Department.
4. **Trained career contacts and improved support networks:** Training initiatives to improve the career support skills of experienced doctors need to be extended. The possibility of extending such training to receivers of career advice, possibly as part of career education initiatives should also be explored. Consideration should also be given to offering formal career mentoring programmes to overseas doctors and doctors from minority ethnic backgrounds.
5. **Availability of impartial and independent advice:** A network of advisers trained in career counselling and with detailed knowledge of medical training should be based in the main teaching hospitals to offer impartial and independent career advice and guidance.
6. **National co-ordination:** Such development in medical career support and information provision requires national co-ordination if it is to be effective. The role of such a national co-ordinating body or group should be to ensure that the required developments take place (eg of a central electronic portal, national information on career opportunities, career planning tools and materials, training of career advisers), to disseminate emergent good practice and to provide funding to support local initiatives.

9.5 Next steps

9.5.1 Dialogue and consultation

In taking forward the results of this study two issues arise:

1. How best to disseminate the research findings

2. How to get agreement on the actions necessary to improve the career advice and guidance available to medical students and doctors in training.

The research has identified a number of issues in the way medical education and training is organised, as well as making more specific suggestions about how the career advice and guidance provision might be improved.

One strategy that would meet both the above objectives is:

1. To prepare a stand-alone summary document that reviews the main research findings and sets out our suggestions for improving career advice and guidance provision. This could be used both to disseminate the research findings and as a basis for consultation and action planning on the best way forward.
2. To organise a series of seminars at various geographical locations in England to present the findings and discuss their implications. Locations and venues for the seminars should be chosen to ensure that representatives from all the organisations that are stakeholders in this process are able to participate in at least one of the events.

It will only be possible to move forward with implementing our suggestions for improving the career advice and guidance available to medical students and doctors in training if there is broad agreement among the main stakeholders on the nature of the problem, and a shared willingness to act on the findings. Such seminars would be one way of beginning the dialogue on the issues raised by this research and also to gauge the level of commitment to act on its findings.

9.5.2 Building on previous research

This research presents a picture of medical education and training that is similar to that presented by Allen (1995). Allen's original research (Allen, 1988) looked at the factors affecting the future activity and participation of women doctors. Her later study aimed to extend this earlier work to a new cohort and she identified eight major areas where her research had implications for policy makers. While this research was not designed to replicate Allen's work or to comment explicitly on her recommendations, it appears that many of the issues she identified have only been partially addressed and remain major concerns for the current generation of doctors in training. In particular, Allen drew attention to the need for change to the structure and content of postgraduate training, the need to either offer more part-time and flexible work and training opportunities or, preferably, reduce working hours for full-time training posts to 48 hours in line with the working time directive. She also identified the absence of clear lines of accountability for managing the career development of doctors in training. This research suggests that these remain significant challenges for all those with responsibilities for the development of the medical profession in this country.

However, this research study has also updated Allen's work in several respects. It is based on cohorts of doctors who qualified 10 to 15 years after the group studied by Allen and, by using a different methodology, has collected information from a much larger sample of doctors. This has meant that it has been able to examine the situation of groups of doctors that were either excluded from her research (*eg* overseas doctors) or

insufficiently represented in her sample (*eg* UK doctors from minority ethnic backgrounds). It also reports on the experience of cohorts of doctors who are being trained in the post-Calman era.

While the research has addressed many similar issues to Allen's work, its explicit focus on proposing a strategy for improving the career advice and guidance of medical students and doctors in training means that the research has had a more specific focus. It has tried to set out clearly the issues that the medical profession must resolve if it is to deliver the career support and advice required to make best use of the full range of talents of all doctors in training.

9.5.3 Why bother to act now?

Given that career support tends to hover as a low priority item within medicine, why bother to act on this research when doctors could go on muddling through? There are four main arguments for implementing the changes proposed here.

The first case for change relates to the wider issue of medical morale. Many of the students in this study managed their careers in spite of the system rather than with any active support. They frequently felt they could have made better career decisions. They wanted more active support for career decision-making than they received. The kinds of support advocated here would not be expensive compared with the formidable costs of medical training and could generate significant benefits in terms of morale as shown in other sectors (Hirsh *et al.*, 2001a).

The second case for change relates to the position of doctors from overseas and from minority ethnic backgrounds within the UK. For at least the next five to ten years, the NHS will be dependent on large numbers of overseas doctors coming to the UK for specialist training. Yet this survey provides evidence that, to a large degree, they feel marginalised, while at the same time, inevitably, they have additional advice and guidance needs. Failing to address their career concerns could easily result in the UK becoming a less attractive destination for them to choose for specialist training. In the longer term, if the medical workforce becomes more diverse as the social mix of entrants into medical school widens, there will be an even greater need for career advice and guidance to ensure that medical careers are pursued on a level playing field.

The third case for change concerns the way in which persistent problems of combining medical training with family life are aggravating shortages in certain specialties, distorting the deployment of the increasing numbers of female doctors, and – most seriously of all – potentially undermining the general future supply of students willing to study medicine. Failure to address this issue is also likely to increase wastage from the NHS as more doctors decide to leave, on either a temporary or a permanent basis, through lack of work opportunities that offer the possibility of a personal life outside medicine. The survey findings suggest that about one in ten UK doctors in training are seriously thinking about leaving medicine but even a modest increase in the number leaving the NHS would seriously aggravate existing shortages. Improved career advice and guidance will not solve the problem of work/life balance in medical careers but it will help people prepare for and cope with it.

The fourth case for change relates to achieving optimal deployment of skills. Doctors are very expensive to train and it is important that they find their way into areas of medicine that they are good at as well as ones they like. In other organisations with highly skilled workforces, the deployment and development of scarce skills is the main driver for paying attention to career choice and investing in improved career advice.

This research has demonstrated that doctors have real problems finding their way through their career and training choices. It is wasteful and ineffective to keep ignoring this problem when a proactive and educational approach to career advice and guidance could make the complex career choice process less painful and more effective. The investment required to deliver such a strategy is small compared to the costs of either doctors leaving the NHS or spending additional time in training.

Finally, the benefits of effective career planning are multiple. This research has shown that waiting until doctors encounter career problems is costly both to the individuals involved and the health care system in this country.

Appendix 1: List of people interviewed

Roger Arkel, Trent Guidance and Support Unit

Chris Bostock, Department of Health

Charles Cooper, Nottingham

A J Crisp, Cambridge

John Cookson, Leicester

John Eastwood, St George's

Richard Feinmann, Manchester

Jon Ford, BMA Health Policy and Economic Research Unit

Peggy Frith, Oxford

Ann Garden, Liverpool

Robert Gregory, Leicester

Jane Harris, Birmingham

Robin Hughes, Royal College of Surgeons

Sonia Hutton-Taylor, Medical Forum

Professor Cornelius Katona, Royal College of Psychiatrists

Prue Kiddie, Department of Health

Mollie McBride, Medical Women's Federation

Rosemary MacDonald, Leeds

Hugh Mather, Royal College of Physicians

Judy McKinn, Imperial

Les Shutt, Royal College of Anaesthetists

Chris Stevens, Southampton

Charles Twort, Guy's, Kings and St Thomas'

David Wall, PMDE, Birmingham

A Weetman, Sheffield

Appendix 2: Survey methodology

This appendix describes the methodology of the postal questionnaire survey that was conducted by the National Institute for Careers Education and Counselling (NICEC) between April and June, 2001. The survey was conducted to examine the career advice and guidance needs of doctors in training. It was targeted at doctors in training and final year medical students and included both UK and overseas doctors.

A2.1 Survey Sample

The sample for the survey was structured to gather the views and experiences of doctors in training at different career stages. The initial research proposal planned to target three cohorts at different stages in their training (i) final year of clinical training; (ii) pre-registration; (iii) post-registration. Preliminary research suggested, however, that many doctors were now spending longer at the SHO grade and it was decided to sample two additional cohorts at the post-registration stage and to increase the sample size from the 3,000 originally planned in the research proposal. This would also make the survey sample more representative of all doctors in training, although specialist registrars would still be under-represented. The final sample design for the research targeted five year groups:

1. Medical students in their final year of clinical training
2. PRHOs who qualified in 2000
3. Doctors in training (qualified 1998/registered 1999/2000)
4. Doctors in training (qualified 1996/registered 1997/98)
5. Doctors in training (qualified 1994/registered 1995/96)

Both UK and overseas doctors working in England were included in the sample with a target that overseas doctors should make up approximately 25% of respondents in the post-qualification groups.

The BMA membership list was used as a sample frame. Table A1 present a breakdown of the BMA membership records for the relevant sample groups of students and doctors in training. It shows that, while overseas PRHOs make up only 1% of PRHO members, overseas members make up 21% of those who qualified in 1994.

Table A1: BMA Membership by Nationality

	UK	Sampling fraction	Overseas	Sampling fraction
Final Year Medical Students	3,194	1 in 4	Not known	-
PRHOs (qualified 2000)	3,289	1 in 4	33	All
Doctors (qualified 1998/registered 1999/2000)	3,098	1 in 4	144	All
Doctors (qualified 1996/registered 1997/98)	2,219	1 in 3	326	All
Doctors (qualified 1994/registered 1995/96)	1,529	1 in 2	416	All

Source: BMA Membership Records

It was estimated that approximately 80% of these doctors would be working in England. On the basis of these figures, it was decided to include all the overseas doctors in the relevant year groups in the sample. One in four of the UK final year medical students, PRHOs and UK doctors qualified in 1998 were selected, one in three of UK doctors qualified in 1996 and one in two of the UK doctors qualified in 1994. The aim of these sampling fractions was to produce a sample that would include approximately equal numbers in each of the UK groups.

It was recognised that a proportion of the doctors in the two oldest cohorts would no longer be in training but it was hoped that doctors in these groups who had recently finished their training would complete the survey.

Comparing the number of BMA members with Department of Health statistics on the medical workforce indicates that approximately 80% of UK PRHOs working in England are members of the BMA. There was, therefore, good reason to believe that the survey sample would be broadly representative of UK doctors in training.

The BMA membership department supplied address labels for respondents. Table A2 shows the number of questionnaires sent out to each group.

Table A2: Sample size by year group

	UK	Overseas
Final Year Medical Students[1]	641	-
PRHOs (qualified 2000)	651	26
Doctors (qualified 1998/registered 1999/2000)	641	108
Doctors (qualified 1996/registered 1997/98)	741	294
Doctors (qualified 1994/registered 1995/96)	654	411
Total	3,328	839

Source: BMA Membership Records

[1] No breakdown of the number of overseas students among the final year medical students was available.

A2.2 Questionnaire

The self-completion questionnaire was designed to track the early career experiences of doctors in training and career expectations of final year medical students and PRHOs. It also sought information on a range of topics relevant to career choice as well as experience of, and views on, the career advice and guidance respondents had received. It was divided into the following sections:

1. Current Employment
2. Education and Training
3. Career Values
4. Career Choice
5. Training and Development Experience
6. Career Attitudes
7. Career Advice and Guidance
8. Background Information

Three different versions of the questionnaire were prepared tailored to the situation of the three different types of respondent – final year medical students, PRHOs, and post-registration doctors. The version for final year medical students did not include a section on current employment, and for both PRHOs and final year medical students a small number of other questions (*eg* certain attitude statements) which were not relevant to their present situation were omitted from the questionnaire.

A2.3 Survey Administration

The timing for the survey was chosen so that it would not be in the field during February or August when many doctors in training change jobs. The survey was publicised prior to launch through columns in the BMJ Classified Career Focus, the Student BMJ and BMA News. The questionnaire was sent out at the beginning of April, 2001 using the address labels supplied by the BMA with a covering letter from the Chair of the BMA Junior Doctors Committee and a reply paid envelope. The envelope containing the survey had a return address on it so that undelivered questionnaires could be returned.

The covering letter included in the questionnaire booklet gave a telephone and email address for people to use if they had any queries about the questionnaire or the survey itself. A handful of respondents made contact. All except one were informing us they were no longer in training. These respondents were encouraged to complete the questionnaire as far as possible. The remaining query was to inform us that all final year students from one Medical School were on overseas electives. As a result, arrangements were made for an email to be distributed to all final year students at this Medical School when they returned to the UK saying that it was not too late to return their questionnaires.

A reminder postcard was sent to all respondents in late April to encourage response. A full reminder including a duplicate questionnaire and second covering letter was sent out in early May with a deadline for

returns given as the end of May. The survey was finally closed in late June, 2001.

A2.4 Response Rate

Table A3 sets out the survey response for the three versions of the questionnaire. A small number (1%) of questionnaires were returned by the Post Office as undelivered indicating that a proportion of addresses were out of date.

Table A3: Survey Response Rate by Questionnaire Version

	Final Year	PRHO	Qualified	Total
Questionnaires sent out	641	677	2,849	4,167
Returned by Post Office	4	13	25	42
Total Survey Sample	**637**	**664**	**2,824**	**4,125**
Questionnaires returned	313	255	1,179	1,746
Duplicates		1		
Non-participants			6	6
Questionnaires included in analysis	**313**	**254**	**1,173**	**1,740**
Overall response rate (Questionnaires returned/total survey sample)	**49.1%**	**38.9%**	**41.7%**	**42.3%**
Response rate for usable questionnaires (Questionnaires in analysis/total survey sample)	**49.1%**	**38.3%**	**41.5%**	**42.2%**

Source: Medical Career Advice and Guidance Survey, 2001

The overall survey response rate was 42%. Final year medical students achieved the highest response rate of 49% and PRHOs the lowest of 38%. The lower response rate for PRHOs may be partially explained by the fact that the Medical Careers Research Group at Oxford were also carrying out a survey of this group over the same time period.

Six questionnaires were returned not completed. One participant declined to complete the survey and five others reported that they were now qualified GPs and no longer in training. One duplicate questionnaire was also returned.

Because the questionnaire was anonymous, it was not possible to check the response rate for the post-qualification respondents by year group directly. This could only be done by examining replies to the relevant questions in the questionnaire. Table A4 provides a breakdown of response rate based on our analysis of replies to these questions. Year of registration was used as the basis for allocating respondents to year groups as many overseas trained doctors had completed their undergraduate medical training some years previously. If year of registration in the UK was not given, year of completion of undergraduate training was used as an alternative.

Some doctors who qualified in one year did not register until two years later. For this reason, the year groups used for calculating response rates and for analysis purposes were based on two year periods.

Table A4: Survey Response Rate by Year of First Registration

	Sample	Response	Response rate %
Final Year Medical Students (UK/Overseas)	637	313	49
UK PRHOs	651	231	35
Overseas PRHOs	26	21	81
UK Doctors Registered 1995/96	654	260	40
UK Doctors Registered 1997/98	741	344	46
UK Doctors Registered 1999/2000	641	255	40
Overseas Doctors Registered 1995/96	411	73	18
Overseas Doctors Registered 1997/98	294	111	38
Overseas Doctors Registered 1999/2000	108	83	77
Other UK (Year missing)		19	
Other Overseas (Year missing)		9	
Nationality not given		21	
Less Post Office returns	-38		
Total	**4,125**	**1,740**	**42**

Source: Medical Career Advice and Guidance Survey, 2001

A small number (22) of respondents[1] did not give their nationality. Sixteen of these respondents were probably UK citizens because they completed their education at medical school in the UK. Similarly, a small proportion (less than 3%) of the post-qualification respondents did not give their year of qualification or registration and so cannot be allocated to a year group.

There appears to be considerable variation in response rates between the overseas year groups with particularly high response rates in the PRHO group and doctors who first registered in the UK in 1999/2000. The lower response rate from overseas doctors who first registered in 1995/96 may reflect the fact that more of this group had already completed their training.

Overall, the response rate for the survey is similar to that obtained in other similar surveys of doctors. Given the length of the questionnaire, the response rate can be considered satisfactory and the overall number of respondents means that any statistical analysis based on the survey responses can be used to estimate population values.

Overseas doctors make up 24% of the respondents at the post-qualification stage, while they made up 28% of the initial sample. This indicates that, although we achieved a slightly lower response rate from overseas doctors overall (34%), they make up about a quarter of post-qualification stage respondents as intended.

[1] Including one final year medical student.

A2.5 Standard error and confidence limits

A key concern of the survey was to provide an accurate measure of the views of final year medical students and doctors in training. If a census had been conducted, then the survey results would be a precise estimate of the views of the target population. However, as the survey was conducted with only a sample from particular year groups and did not achieve a 100% response, there is a degree of random error associated with all estimates from the survey results.

Convention is to calculate the standard error of a proportion for a given sample size. The worst case is always the 50/50 case and this is used for illustration (Moser and Kalton, 1971). Once the standard error for the survey has been estimated, a level of confidence can be assigned to any estimates made from the survey results, that is, it is possible to indicate the probability that the 'real' population value is within a certain range of the survey estimate. For example, it is possible to say that the population value is within X per cent of the survey estimate with a 95 per cent level confidence

In this case with a sample size of 1,740 (excluding late returns and blank questionnaires, etc), using standard formulas, the standard error for the 50/50 case on any sample statistic is 1.2 per cent. This means that it is possible to be 95 per cent confident that population values are within +/- 2.4 per cent of estimates from the analysis of the survey data.

The estimates for smaller groups of respondents (*eg* year groups), are shown in Table A5 for illustrative purposes.

Table A5: Standard error and 95 per cent confidence limit

Group	Sample	Standard error %	95 per cent confidence limit %
All respondents	1,740	1.2	+/- 2.4
Final year	313	2.8	+/- 5.6
PRHO	254	3.1	+/- 6.2
1999/2000	344	2.7	+/- 5.4
1997/98	460	2.3	+/- 4.6
1995/96	340	2.7	+/-5.4

Knowledge of the standard error makes it possible to specify the probable range of the estimate obtained from the survey data within which the population value lies with a known level of probability. It also means that, when two estimates differ by a certain amount, how confident it is possible to be that they indicate different population values. In this case, it is possible to be 95 per cent confident (the conventional significance level) that final year and PRHO respondents have different views when their replies differ by more than 11.8 per cent (5.6 per cent + 6.2 per cent). So that, for example, differences in the percentage of final year and PRHO respondents agreeing with a particular statement can be considered statistically significant when they differ by more than this amount.

However, it should be noted that, as Moser and Kalton point out, the main concern of most surveys is to estimate the magnitude of effects. This means that determining strength of opinion about key issues is as important as whether two results are significantly different from one another.

Appendix 3: Profile of respondents

The purpose of this appendix is to provide a summary of the background and employment details of survey respondents.

A3.1 Background information

Table A6 summarises background information about the respondents by year group. Key points to note are:

- 57% of respondents were female with the proportion ranging from 62% of PRHOs to 53% of the 1997/98 cohort.
- 44% of respondents were married or living with a partner with the proportion rising from 17% of final year medical students to 66% of the 1995/96 cohort.
- 12% of respondents had dependent children with the proportion rising from 2% of final year medical students and PRHOs to 27% of the 1995/96 cohort. 5% of respondents having caring responsibilities for an elderly relative or other adult.
- 23% of respondents described themselves as a member of an ethnic minority with 38% of these respondents describing themselves as Indian and 13% as Chinese.

Further analysis indicated no difference in the marital status of male and female respondents, but 15% of male respondents reported that they had dependent children compared to 10% of female respondents. This difference is accounted for by two factors:

1. Overseas doctors were about two years older on average than UK doctors and were therefore more likely to have dependent children
2. UK male respondents in the younger cohorts were more likely to have dependent children than their female peers.

Nationality

Overall, 81% of respondents were from the UK, 8% from other EEA countries and 11% from other overseas countries. However, 92% of final year medical students and PRHOs were from the UK with 6% of both groups from other overseas countries and the remainder from other EEA countries (see Table A7).

Table A6: Background information[1]

	Final year	PRHO	1999/2000	1997/98	1995/96	All respondents
	%	%	%	%	%	%
Gender						
Male	38	38	46	47	41	43
Female	62	62	54	53	59	57
Total cases	*312*	*252*	*338*	*456*	*335*	*1721*
Age group						
21 to 25 years	87	77	12	0	0	30
26 to 30 years	8	15	72	80	46	49
31 to 35 years	2	4	7	13	43	14
36 to 40 years	0	0	2	2	5	2
Over 40	0	0	0	1	1	1
Not answered	3	2	7	4	5	5
Total cases	*312*	*252*	*338*	*456*	*335*	*1721*
Marital status						
Single	82	78	52	43	31	55
Living with partner	17	21	46	55	66	44
Other	1	1	2	2	3	2
Total cases	*312*	*252*	*338*	*455*	*332*	*1717*
Dependent children	2	2	8	16	27	12
Total cases	*311*	*251*	*338*	*456*	*332*	*1716*
Adult caring responsibilities	2	5	5	4	7	5
Total cases	*311*	*251*	*335*	*456*	*331*	*1712*
Minority ethnic background						
Yes	18	24	28	24	20	23
No	82	76	72	75	79	77
Not answered	0	0	1	0	1	1
Total cases	*312*	*252*	*338*	*456*	*335*	*1721*
Ethnic origin						
Black-African	5	3	6	12	4	7
Black-Caribbean	0	2	6	3	4	3
Black-Other	2	0	0	0	1	1
Bangladeshi	4	0	1	2	3	2
Chinese	23	10	10	17	4	13
Indian	25	43	45	33	43	38
Pakistani	7	13	4	5	7	7
Asian-Other	14	12	6	8	12	10
Other	19	17	20	21	19	20
Not answered	2	0	0	0	0	1
Total cases	*57*	*60*	*93*	*110*	*67*	*394*

Source: Medical Career Advice and Guidance Survey, 2001

[1] 19 respondents did not answer this section of the questionnaire.

Table A7: Nationality

Nationality	Final year %	PRHO %	1999/2000 %	1997/98 %	1995/96 %	All respondents %
UK	92	92	75	76	78	81
EEA Country	2	3	7	10	14	8
Other Country	6	6	18	14	8	11
Total cases	*312*	*252*	*338*	*455*	*333*	*1718*

Source: Medical Career Advice and Guidance Survey, 2001

Respondents from other EEA countries made up an increasing proportion of the year cohorts increasing from 7% of the 1999/2000 cohort to 14% of the 1995/96 cohort.

Respondents from other countries made up 18% of the 1999/2000 cohort but declined to 8% of the 1995/96 cohort.

Further analysis was carried out to examine how background details of respondents varied by nationality. This showed that:

- 59% of UK respondents were female compared to 57% of EEA nationals and 42% of respondents from other nationalities.
- 17% of UK respondents were from minority ethnic backgrounds as were 77% of non-EEA respondents.
- Among UK respondents Indians (38%) were the largest minority ethnic group followed by Chinese (10%), Pakistani (10%) and other Asians (9%).
- Among non-EEA respondents 39% were Indian, 19% Chinese, 12% African and 12% were from other Asian backgrounds.

A3.2 Employment information

Tables A8 and A9 summarise information about the grade and employment circumstances of post-qualification stage doctors from the UK and non-UK respectively. Table A8 shows that of UK respondents:

- 95% of the 1999/2000 cohort were SHOs, while just 4 were GP Registrars and 3 Specialist Registrars.
- 34% of female SHOs in the 1999/2000 cohort were on the GP Vocational Training Scheme compared to 22% of male SHOs.
- 39% of the 1997/98 cohort were SHOs, 24% were Specialist Registrars, 15% were GP Registrars and 9% were Clinical Research Fellows, while 9% were GPs (including Locum GPs).
- 29% of men in the 1997/98 cohort were Specialist Registrars compared to 19% of women, while 21% of women in the 1997/98 cohort were GP Registrars compared to 8% of men.
- 51% of the 1995/96 cohort were Specialist Registrars, 14% were SHOs and 10% were Clinical Research Fellows, while 14% were GPs (including Locum GPs) and 7% GP Registrars.

Table A8: Employment information: UK doctors

	1999/2000			1997/98			1995/96			All respondents		
Grade	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
SHO	74	63	67	37	31	33	15	9	11	42	33	36
SHO on GP VTS	21	32	27	5	6	6	2	3	3	9	13	11
GP Registrar	1	2	2	8	21	15	3	9	7	4	11	8
SpR	2	1	1	29	19	24	54	50	51	29	24	26
Clinical Research Fellow	1	0	0	10	8	9	17	6	10	9	5	7
Staff Grade	0	1	0	1	1	1	0	1	1	1	1	1
GP/Locum GP	0	0	0	7	11	9	7	18	14	5	11	8
Other	1	1	1	1	3	2	1	3	2	1	2	2
Not working as a doctor	1	0	0	1	1	1	1	2	2	1	1	1
Total cases	*106*	*149*	*255*	*154*	*190*	*344*	*99*	*161*	*260*	*368*	*510*	*878*

Source: Medical Career Advice and Guidance Survey, 2001

Table A9: Employment information: Overseas doctors

	1999/2000			1997/98			1995/96			All respondents		
Grade	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
SHO	73	71	72	43	48	45	19	24	22	45	48	46
SHO on GP VTS	19	20	19	16	12	14	6	5	5	14	13	13
GP Registrar	0	0	0	8	14	11	6	27	16	5	13	9
SpR	4	9	6	21	12	17	28	19	23	18	14	16
Clinical Research Fellow	0	0	0	3	4	4	11	5	8	4	3	4
Staff Grade	0	0	0	2	2	2	17	11	14	5	4	5
GP/Locum GP	2	0	1	3	6	5	14	5	10	6	4	5
Other	2	0	1	3	0	2	0	0	0	2	0	1
Not working as a doctor	0	0	0	0	2	1	0	3	1	0	2	1
Total cases	*48*	*35*	*83*	*61*	*50*	*111*	*36*	*37*	*73*	*150*	*126*	*276*

Source: Medical Career Advice and Guidance Survey, 2001

- A similar proportion of men and women in the 1995/96 cohort were Specialist Registrars (54% and 50%), but 17% of men were Clinical Research Fellows compared to 6% of women, while 18% of women were GPs (including Locum GPs) and 9% GP Registrars compared to 7% of men who were GPs and 3% who were GP Registrars.

Table A9 presents similar information for non-UK respondents. It shows that:

- 92% of non-UK respondents who first registered in the UK in 1999/2000 were working as SHOs, while 6% were Specialist Registrars
- 59% of non-UK respondents who first registered in the UK in 1997/98 were working as SHOs, while 17% were Specialist Registrars and 11% were GP Registrars
- 21% of non-UK men in the 1997/98 cohort were Specialist Registrars compared to 12% of non-UK women, while 14% of non-UK women in the 1997/98 cohort were GP Registrars compared to 8% of men.
- 23% of the non-UK respondents who first registered in the UK in 1995/96 were Specialist Registrars, 27% were SHOs, 16% GP Registrars and 8% were Clinical Research Fellows, while 14% were in Staff Grade positions.
- 28% of non-UK men in the 1995/96 cohort were Specialist Registrars compared to 19% of non-UK women, while 27% of non-UK women in the 1997/98 cohort were GP Registrars compared to 6% of men.

A3.3 Sample representativeness

The background and employment information can be used to compare the respondents with national data (Department of Health, 2001a). Using data from this statistical bulletin it is possible to make comparisons within grades with the survey respondents in terms of gender, country of qualification and ethnic origin (see Table A10). Note that the survey design meant that specialist registrars were under-represented in the survey target population and SpRs among survey respondents are therefore younger and more likely to be female than for the entire SpRs population.

These comparisons suggest that women were over-represented among the survey respondents and that doctors from minority ethnic backgrounds and doctors who qualified outside the EEA were under-represented. Both these effects appear to be mainly because of the under-representation of doctors who qualified outside the EEA, who were more likely to be male and to be from minority ethnic backgrounds. These effects were strongest in the Registrar Group.

This is partly a function of known biases in the BMA membership which under-represents overseas doctors, although the sampling strategy by including all overseas doctors set out to compensate for this. The 18% survey response rate from overseas doctors in the 1995/96 cohort would also have accentuated these effects.

Table A10: Comparison of survey sample and Dept of Health data by grade on selected variables

	Survey Sample %	Dept of Health Statistical Bulletin 2001/02 %
Female		
Registrar Group	51	37
Senior House Officer	53	46
House Officer	62	50
Qualified in UK		
Registrar Group	85	65
Senior House Officer	72	65
House Officer	95	91
Qualified in other EEA country		
Registrar Group	4	7
Senior House Officer	9	6
House Officer	2	8
Qualified outside EEA		
Registrar Group	8	28
Senior House Officer	19	29
House Officer	3	2
Ethnic minority (all countries)		
Registrar Group	22	35
Senior House Officer	26	42
House Officer	24	32
Ethnic minority (UK qualified)		
Registrar Group	15	21
Senior House Officer	18	27
House Officer	22	21

Appendix 4: The Medical Career Structure

Appendix Figure 1 sets out a simplified model of the main stages of the medical career structure for doctors working in general practice and hospital medicine. Other career paths include academic and research medicine, public and community health, the armed forces, occupational medicine, the Civil Service and work in the pharmaceutical industry.

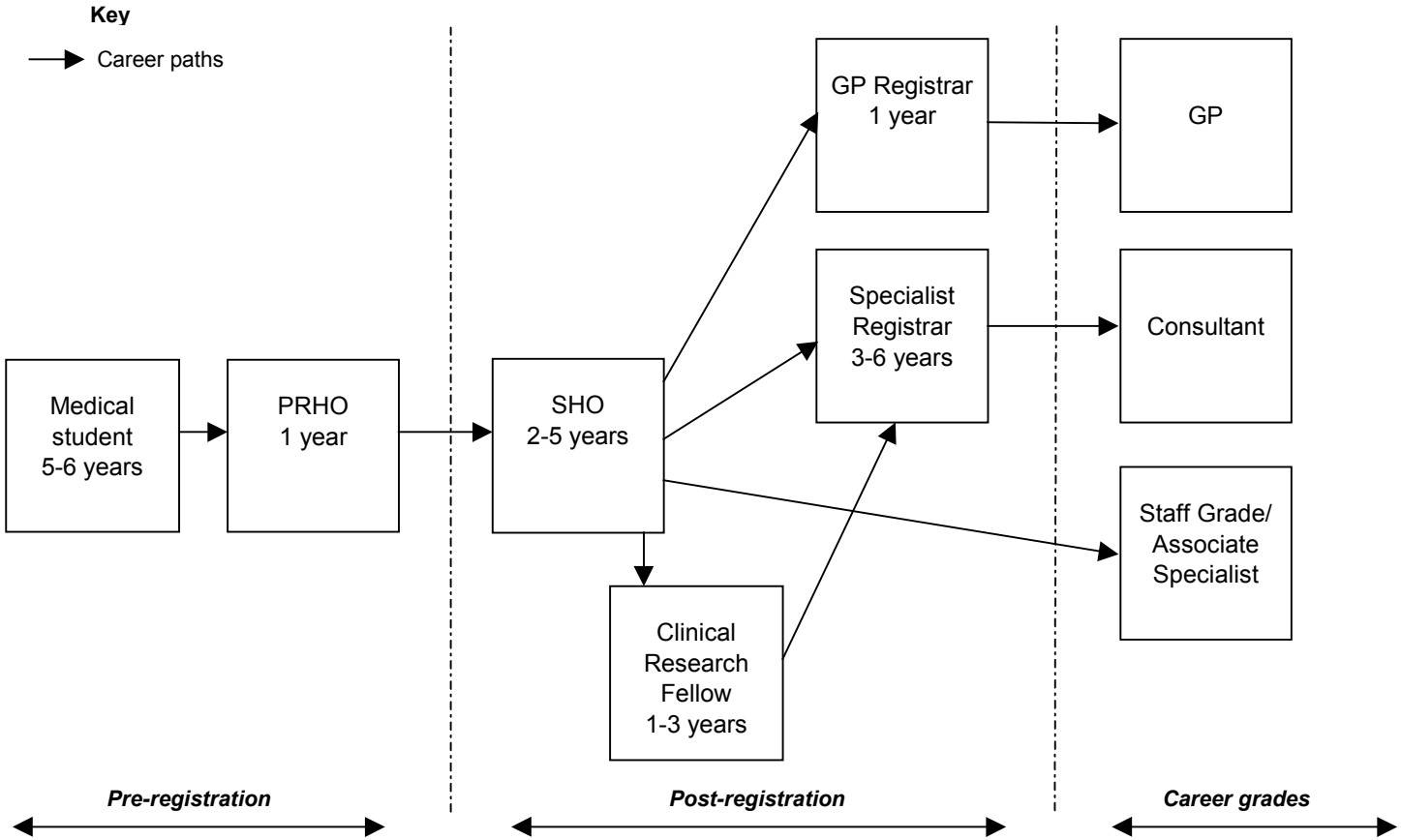
As well as indicating the stages of the medical career, the figure also gives the typical length of time that medical students and doctors in training are likely to spend at each stage. Doctors who opt to train on a flexible basis may spend longer at particular stages and the length of higher specialist training as a specialist registrar varies for different specialties.

The training of medical students in the UK is governed by the General Medical Council (GMC) with numbers of students limited nationally. Training has traditionally been divided into two stages: pre-clinical training which lasts a minimum of two years and clinical training which generally lasts three years. Most courses have the option to extend the pre-clinical course by a year so that students complete a BA or BSc degree. Some medical schools require this. This survey found that 41% of final year medical students and PRHOs had obtained a BA or BSc. More recently, many five- and six-year courses have integrated pre-clinical and clinical studies, and some medical schools now offer a completely integrated four-year course for people who have already graduated in other subjects.

PRHO training lasts a year but may be extended if done on a flexible training basis. Satisfactory completion of the PRHO training leads to registration with the GMC. Traditionally, the year as a PRHO is divided into two 6 month placements in medicine and surgery respectively. Some PRHO training is now organised to offer three four month placements. Approximately one in five of PRHO survey respondents were on their third placement.

Doctors in training normally spend between two and five years as SHOs, although among UK survey respondents 14% of those registered in 1995/96 were still in the SHO grade. A minimum period of two year's clinical experience as an SHO is required by nearly all specialties prior to entry to higher specialist training. Before entry to higher specialist training as a Specialist Registrar, most specialties require SHOs to have passed certain exams, *eg* Part 1 exams for Membership of the Royal College of Surgeons (MRCS). The survey found that 95% of Specialist Registrars had passed exams as an SHO.

Appendix Figure 1: Simplified model of the medical career structure



SHO training is usually organised into 6 month placements, but free standing SHO posts may be a year long. In some cases, training is organised in a structured set of placements (planned rotations) designed to give SHOs experience of the range of work within a particular field, eg surgery.

A proportion of doctors in training opt to study for an MD or PhD. Most do this as Clinical Research Fellows, sometimes taking time out of a specialist registrar training programme. Roughly one in ten respondents in the two oldest survey cohorts were Clinical Research Fellows. Most of this group (90%) had not yet started higher specialist training.

Doctors expecting to enter General Practice normally complete at least two years as an SHO. Most will do this on a GP Vocational Training Scheme, although some will have spent time as an SHO before deciding to train as a GP and others will organise their own training rather than join a GP Vocational Training Scheme. Whichever route is pursued, it is followed by a year as a GP Registrar.

The minimum length of higher specialist training is between three and six years depending on the specialty area chosen, although many SpRs spend longer than this. Completion of higher specialist training results in the award of the Certificate of Completion of Specialist Training (CCST) which confers eligibility to apply for consultant grade posts.

Even after obtaining their CCST, some doctors will go on to complete further training in a sub-specialty. The survey found that 44% of SpRs expected to undertake sub-speciality training.

Not all doctors in training are in approved training posts. 8% of SHOs and 5% of SpRs in the survey reported that they were not currently in training posts. Usually this is because the doctors concerned are working as locums. In addition, some SpRs were in LAT posts (Locum Appointment for Training).

An increasing number of doctors are working in staff grade positions usually because they have not been able to achieve a CCST for whatever reason.

Note that the survey findings provide considerable evidence that doctors in training change career paths. Actual training times are usually longer, often considerably longer, than the minimum times that are theoretically possible.

Appendix 5: Scales

This appendix lists the questionnaire items that make up the four scales used in the analysis presented in this report. Scales were constructed by factor analysis of the survey data. For each scale, the group that it applies to (if not all respondents) is shown along with the alpha coefficient (a measure of the internal consistency of the scale). It is generally recommended that a scale should have an alpha coefficient of 0.7 or greater if it is to be used for comparing groups of respondents.

The purpose of constructing scales is to make comparisons between groups of respondents more meaningful. Replies from individual items are less reliable than scores derived from scales that are made up of items that have been shown to be related by item analysis.

A5.1 Training and development experience

Satisfaction with training (Doctors) (9 items; alpha 0.741)

1. The overall quality of training I have received
2. The length of hours I have to work
3. The normal 6 month length of SHO jobs
4. The overall length of time that it will take me to become qualified in my chosen field
5. The flexibility of the current training system
6. The quality of the career advice and guidance I have received
7. The balance between the time spent on education/training versus service provision
8. The way that appointments are made to SHO rotations.
9. The training costs (*eg* exam fees) that I have to meet

Satisfaction with study leave (Doctors) (2 items; alpha 0.731)

1. Arrangements for making time available for study leave
2. Financial support for study leave

A5.2 Career choice (Question 7)

Decidedness (4 items; alpha 0.874)

1. I know the area of medicine in which I want to work and what I need to do to get there
2. I am trying to decide between several different career options *(scoring reversed)*
3. I need more information about possible medical career options before I make any firm plans *(scoring reversed)*
4. I need to find out more about what interests me and what I might be good at *(scoring reversed)*

Satisfaction with choice (5 items; alpha 0.705)

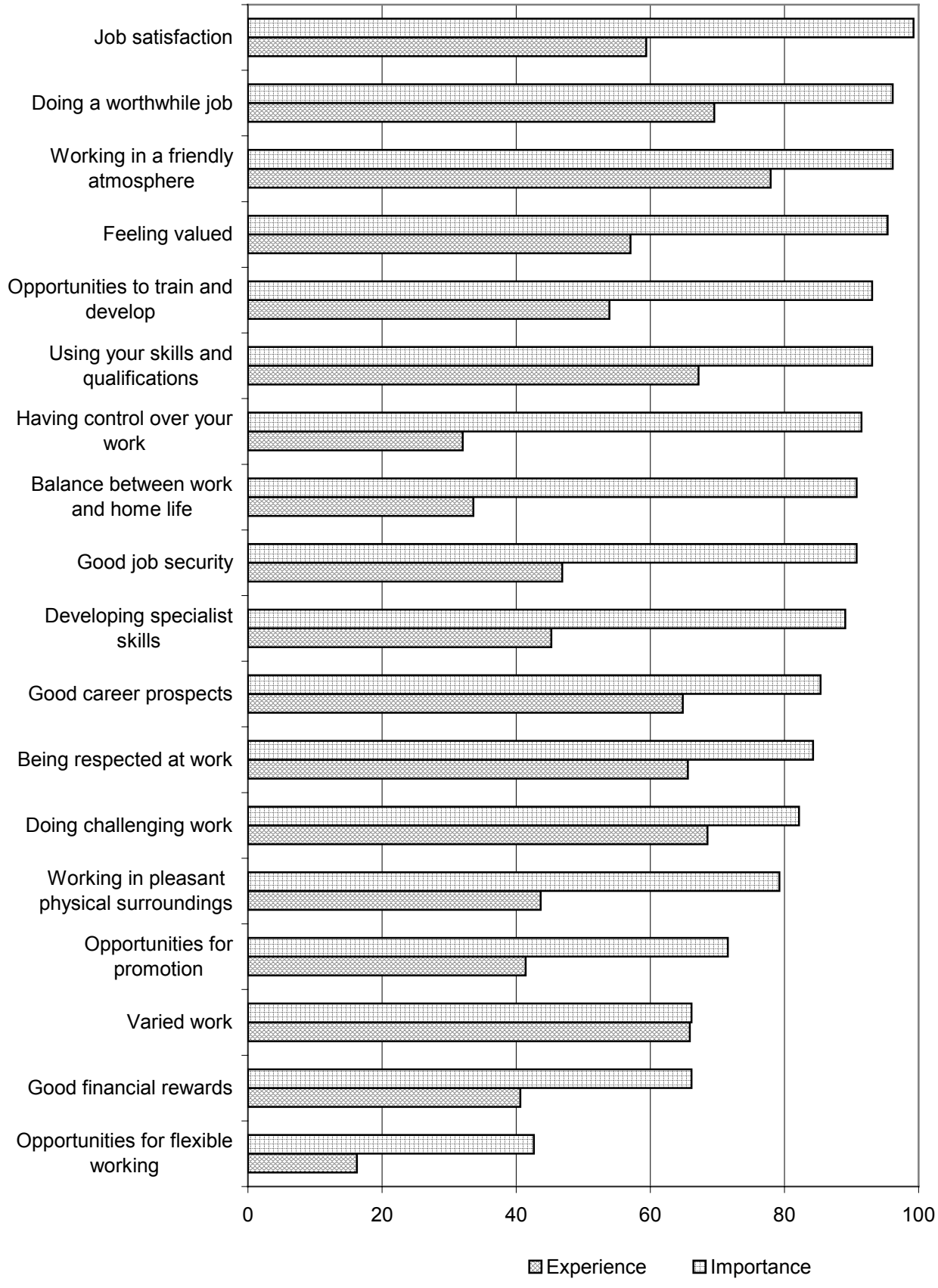
1. I have had to change my career plans and start thinking again about the area of medicine in which I will work *(scoring reversed)*
2. My experience so far makes me feel I have made the right decisions about my medical career
3. I think I have made some poor career decisions and now I need some career advice *(scoring reversed)*
4. I wish I had started planning my career sooner *(scoring reversed)*
5. I am seriously thinking of leaving medicine *(scoring reversed)*

Appendix 6: List of specialties and additional figures

Table A11: List of specialties

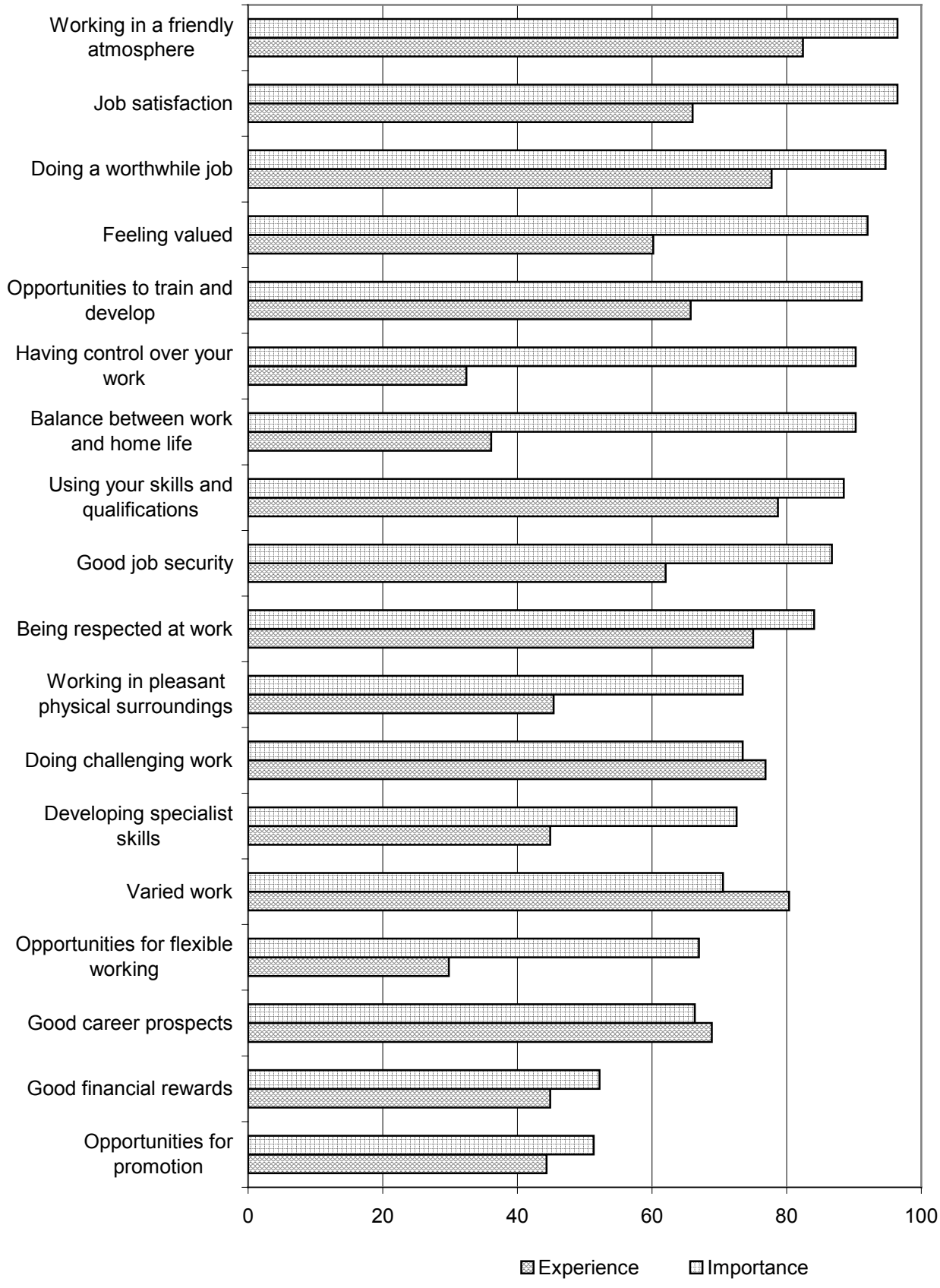
Specialty area	Specialties included
Accident and Emergency Medicine	
Anaesthetics	
General Practice	
General Medicine	Cardiovascular/Cardiology, Clinical Genetics, Clinical Neurophysiology, Clinical Pharmacology, Dermatology, Diabetes and Endocrinology, Gastroenterology, General Internal Medicine, Genito-Urinary medicine, Infectious diseases, ITU, Medical Oncology, Nephrology, Neurology, Nuclear Medicine, Paediatric Cardiology, Palliative Medicine, Rehabilitation Medicine, Respiratory Medicine, Rheumatology, Transplantation
Geriatric Medicine	
Obstetrics and Gynaecology	
Occupational Medicine	
Ophthalmology	
Paediatrics	
Pathology	Chemical Pathology, Haematology, Histopathology, Immunology/Allergy, Medical Microbiology/Virology
Psychiatry	Child and Adolescent Psychiatry, Forensic Psychiatry, General Psychiatry, Old Age Psychiatry, Psychiatry of Learning Difficulties, Psychotherapy
Public Health Medicine	
Radiology	Clinical Oncology, Diagnostic Radiology
Surgery	Cardiothoracic Surgery, General Surgery, Neurosurgery, Oral and Maxillofacial Surgery, Orthopaedic and Trauma Surgery, Otolaryngology, Paediatric Surgery, Plastic Surgery, Urology
Other areas	Sports Medicine, Drug Rehabilitation, Family Planning

Appendix Figure 2: Importance and experience compared: Overseas male doctors



Source: Medical Career Advice and Guidance Survey, 2001

Appendix Figure 3: Importance and experience compared: Overseas female doctors



Source: Medical Career Advice and Guidance Survey, 2001

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