

Junior doctors - morale, job satisfaction, stress and their interrelationships

Caron Grainger MB ChB MFPHM

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference had been made to the work of others

Summary

Research and anecdote suggest that the morale of doctors is low. Consequences of this in medicine include poor communication, faulty decision making, and poor interpersonal relationships.

This work assesses the morale of pre-registration house officers (PRHOs), using the proxy measures of job satisfaction and mental and physical ill-health manifestations of stress, and follows one group over a period of eighteen months to determine whether morale improves over this time.

Data collection was by modified postal questionnaire and consisted of self reported job satisfaction and mental and physical ill-health, life style data and career information. Data was obtained in three separate studies, comprising

- 234 eligible PRHOs working within the West Midlands in 1993 (response rate of 83.6%)
- A follow up study of the respondents to the original west Midlands survey (response rate 80.4%)
- 828 eligible PRHOs working in the West Midlands, Bristol, Nottingham, Oxford and Sheffield (response rate of 58.9%)

PRHOs and SHOs had significantly lower scores for job satisfaction and significantly higher scores for mental and physical ill-health than comparative groups. Female PRHOs and SHOs had significantly higher scores for ill-health than male PRHOs. Some improvement in job satisfaction was seen in the 18 month period from PRHO to SHO, but there was no significant change in well being during this time.

As a result of this work, a stress counselling and management service has been made available in the West Midlands, an "Introduction to being a House

Officer” course begun in the final year at Birmingham Medical School, and a “Stress Survival Guide” book published.

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Abbreviations

A&E	Accident and Emergency
COPMED	Committee of Postgraduate Medical Deans
df	Degrees of freedom
GHQ	General Health Questionnaire
GHS	General Household Survey
GMC	General Medical Council
HAD	Hospital Anxiety and Depression scale
MBI	Maslach Burnout Inventory
ND	No difference
NS	Not significant
NHS	National Health Service
OPCS	Office for Population, Censuses and Surveys
OSI	Occupational Stress Indicator
PMDE	Postgraduate Board of Medical and Dental Education
PRHO	Pre Registration House Officer
sd	Standard deviation
SHO	Senior House Officer
SMR	Standardised Mortality Rate
UCCA	University Central Council for Admissions (now known as UCAS - Universities and Colleges Admissions Service)
WM	West Midlands

Section 1 Background to the problem and literature review

1.1 Stress in the NHS and introduction to the problem of stress in doctors

Health care workers are believed to be particularly susceptible to stress and related illness because of the nature of their work.¹ For example, they face unique occupational stressors such as dealing with death and dying, and distressed and bereaved relatives, on a daily basis. In addition to these stressors, the working environment of the NHS is reported to have much potential for creating high levels of stress amongst its staff.²

"Almost three quarters of the NHS expenditure is on staff, and yet the NHS has been called a terrible employer. Many staff are on very low rates of pay; training may be poor, and drop out rates among, for instance, nurses are high; the salary structure of most staff does not allow better pay for better performance; some groups work absurdly long hours in often poor conditions; career development is chaotic for some; sickness and accident rates are high; and occupational health services are often non-existent".³

There are many reasons postulated for this burden of stress on NHS staff. Some are a function of the occupational stressors facing staff, but others relate to the NHS being a highly complex, and political organisation, operating in a cash limited environment, and often out of poor facilities.² Organisational change is frequent both in terms of policy initiatives and reorganisation of services, and is recognised as having an impact on the well being of staff.⁴ Hours of work are traditionally long, particularly for some groups of staff, with consequences for well-being.^{5,6} Resources are scarce, with Britain spending less of its gross domestic product on healthcare than comparably developed countries,⁷ requiring an estimated £6 billion extra to bring expenditure up to the average for the Organisation for Economic Co-operation and Development (1991 levels).³ Irrespective of the cause, the problems of stress and its consequences affect many professional groups working within the NHS.^{1,2,8,9}

Additionally, stress within the medical profession is becoming increasingly well recognised.² Most doctors can give one, often more, examples of colleagues who have “taken time out”, either because of the stressful effect of practising medicine, or of working within the NHS. Indeed, it has been recognised that doctors suffer a higher incidence of both suicide and cirrhosis of the liver,¹⁰ both regarded as maladaptive responses to stress, than the general population. When one considers the financial implications of training a doctors (£156,000 to graduation, and up to £188,000 if a degree is intercalated¹¹) let alone the cost of post-graduation training and continuing medical education, any loss to the workforce is financially wasteful. This work provides an overview of the morale of Pre-Registration House Officers.

1.2 Literature review of stress and morale in doctors

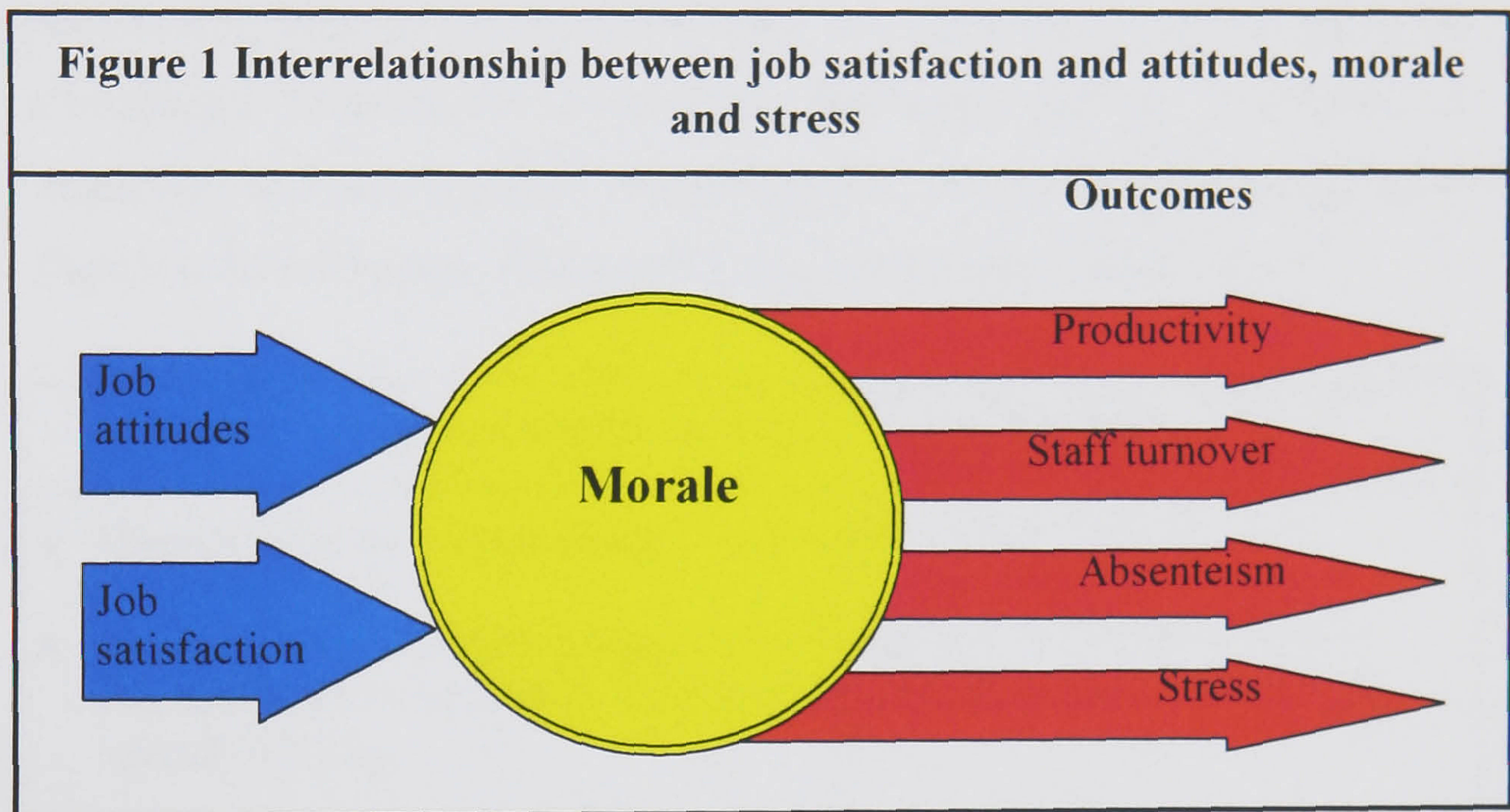
1.2.1 Morale

Morale is a complex mixture of several elements formed from the attitudes of individuals to their jobs and the satisfaction they receive from performing the job. There is no standard definition of morale, although the Oxford English Dictionary defines it as:

“the mental attitude or bearing of a person or a group of people, especially as regards confidence and discipline”

Others have defined morale in alternative ways: “the feeling of well-being an individual experiences when his needs are being fulfilled to his satisfaction,”¹² “the extent to which an individual's needs are satisfied and the extent to which an individual person perceives that satisfaction as stemming from his total job situation.”¹³

Morale is not therefore a single dimension of organisational behaviour but recognises the effect of the job situation upon an individual's attitudes and includes the role of human needs as motivational forces. It is a group concept, formed by the summation of the attitudes of the individuals making up the group.¹⁴ Figure 1 shows the relationship between morale, job attitudes and job satisfaction. Some of the outcomes of this complex interplay are also shown, one of the more important being workplace stress.



1.2.1.1. Job attitudes

Job attitudes are defined as the feelings an employee has towards a job.¹⁴ They are influenced by age, education and personality, and are central to morale. High morale exists within an organisation when employee attitudes are favourable towards their jobs, the organisation and their colleagues; low morale exists when attitudes hinder the willingness or ability of individuals to attain objectives or gain satisfaction from their job.

1.2.1.2 Job satisfaction

Job satisfaction reflects how favourable an individual's attitudes is to their job, and colleagues, and how they perceive they fit into and influence the organisation. It is based on job attitudes but is somewhat broader in that job satisfaction relates to how the job fits into the total picture of an individual's functioning.¹⁴ Professional people generally experience the most job satisfaction, followed by salaried workers. Job dissatisfaction results when the discrepancy between the individual's aspirations and the possibility of attainment become too great.¹⁵ Factors influencing job satisfaction are given in Figure 2. As can be seen, they are all characteristic of professional life.¹³

Figure 2 Factors affecting job satisfaction

- **Opportunity for advancement** - contribution to satisfaction
- **Responsibility** - seldom a reason for dissatisfaction, but contributes substantially to satisfaction. In general as responsibility increases so too does satisfaction
- **Achievement** - again, as achievement increases so does satisfaction
- **Intrinsic aspects of the job** e.g. educational challenge or stimulation
- **Recognition of worth** - contribution to satisfaction

Hertzberg¹⁶ has identified two groups of influences on job satisfaction and attitudes:

- **Motivators** - factors which improve attitude or performance
- **Hygiene factors** - which prevent the loss of morale

Hygiene factors are prerequisites for effective motivation. Whilst they do not in themselves motivate, only prevent dissatisfaction, without them motivating factors will not work. Pay, job security, and working conditions are examples of

hygiene factors. When issues such as these are poor, morale is low. When satisfactory, motivators are able to work, improving morale and performance.

Lasting good feelings are caused by motivators e.g. stimulating work, responsibility, promotion, being able to exercise initiative. Praise and pats on the back are not motivators - they have only a temporary effect.¹²

1.2.2 Morale and the medical profession

Very little work has been conducted on the issue of morale within the medical profession, especially among junior doctors. Godlee¹⁷ however stated that there is a general consensus of opinion that junior doctors are demoralised because of their long hours, poor facilities, inadequate support and uncertain career prospects.

The British Medical Association undertook a survey of morale amongst consultants in 1991, surveying a total of 1,423 consultants and receiving 885 responses suitable for analysis (62.2% response rate).¹⁸ 26% (223/885) of respondents considered their level of job satisfaction to be low, with 4% (38/885) considering it very low. Younger consultants however were reported to have higher levels of job satisfaction than their older colleagues. 51% (451/885) of respondents reported that morale was low or very low, with 61% (540/885) stating that their morale was now lower than it had been 5 years earlier. Eight percent regretted choosing medicine as a career.

Allen,¹⁹ in her investigation of doctors and their careers reported that about 15% of 1986 qualifiers (15/105 males, 19/124 females, response rate 80%) were dissatisfied with their present job, compared to less than 10% of 1981 qualifiers (9/101 males and 9/103 females). She also reported that 55% of 1986 male qualifiers (58/105) and 61% of 1986 female qualifiers (76/124) regretted their decision to become doctors at some time. The level of regret was higher than that reported for 1976 and 1981 qualifiers.

Finally, a small study of 12 PRHOs by Dowling and Barrett²⁰ found that the pre-registration year was dominated by repetitive clerical and administrative tasks, with PRHOs feeling undervalued, taken for granted and ignored (unless they made mistakes). Hygiene factors such as accommodation, catering, and working conditions were also poor. The authors identified three areas which the PRHOs considered as important for their morale (Figure 3).

Figure 3 Areas important for good morale

- Support to reduce uncertainty (the reality of the job versus the expectation)
- Support indicating that the PRHO is valued as a person
- Support to indicate that the job is valued

Work suggests that career planning should include an understanding of the possibility of conflict between expectancy and the reality of work.²¹ New colleague graduates strongly feel that their knowledge and skills are not fully utilised or appreciated in the workplace. Knowing what to expect and what not to expect relates closely to the development of attitudes. This last point is particularly applicable to the experiences of newly qualified PRHOs.²⁰

Anecdotal reports of disillusionment, low morale and regret of career choice in medical students and junior doctors have been reported elsewhere.^{22,23,24} These reports suggest that long hours are often not in themselves a cause of discontent, rather an “excuse” for other, more anxiety provoking factors.²⁵

Additionally, many doctors can give anecdotal examples of doctors who are leaving the profession, or never taking up practice to begin with. This is discussed below.

1.2.3 Are doctors leaving the profession?

Medicine is traditionally an oversubscribed undergraduate course. However fewer people are applying to study medicine despite the large increases in applications for tertiary education as a whole, with only two applicants for each place in British medical schools each year.²⁶ UCCA data demonstrates a fall in applications for places by 2.7% between 1985 and 1991, while total applications increased by 29.8%. Possible explanations for the decline include financial reasons e.g. pay compared to other professions, heightened awareness of working conditions and hours, recognition of regrets about career choice and a change in the public's attitudes towards doctors.²⁶ Equally, better school careers advice emphasising the length of undergraduate course, and steadily increasing academic entry requirements may be seen as off-putting.

Little published information exists on the numbers of doctors who have left/are leaving the medical profession. A review of statistics provided by the Universities Statistical Records shows a significant increase in the number of medical students who failed or left medical school prior to graduation between 1972 and 1985 at UK level (χ^2 for trend = 8.0, df = 1, $p < 0.005$). This relationship does not however hold true with linear regression, possibly because the scatter plot created is not best fitted by a straight line. There is little evidence to support the idea of more students having difficulties with examinations as UCCA data indicates that A level entry grades have been maintained. Indeed Kelly²⁷ fuelled concern about the proportion of candidates failing at final MB level. He reported that of the 5% failures, 50% did so very badly which was strange considering the educational background of the students (AAA or ABB grades at A level). He stated that such incidents attracted the comment "Don't think s/he really wants to be a doctor."

If increased loss of junior doctors is due to morale problems, it is not immediately clear at what career stage this might occur. An examination of FR 1 returns for Birmingham from 1985-90 shows no significant trend towards

increased loss at the interface between pre-registration and full registration. Other points at which loss might be expected include pre-graduation (see above), graduation/pre-registration, or in the first few years of the career.

It is however reported that 18-25% of medical graduates leave (or never join) the main public sector within 5 years of graduation.²⁸ This does not equate to ceasing medical practice, but to (essentially) leaving the NHS. It might however include practising medicine abroad or within the Armed Forces. Loss of young doctors has considerable implications for Achieving a Balance²⁹ and the New Deal³⁰ especially as the Medical Manpower Advisory Committee has already identified signs of a short term shortfall in doctors. The drop out rate is also financially wasteful - training a doctor costs in the region of £158,000, or £188,000 including an intercalated degree.¹¹

1.2.4 Measuring morale - a model of organisational stress

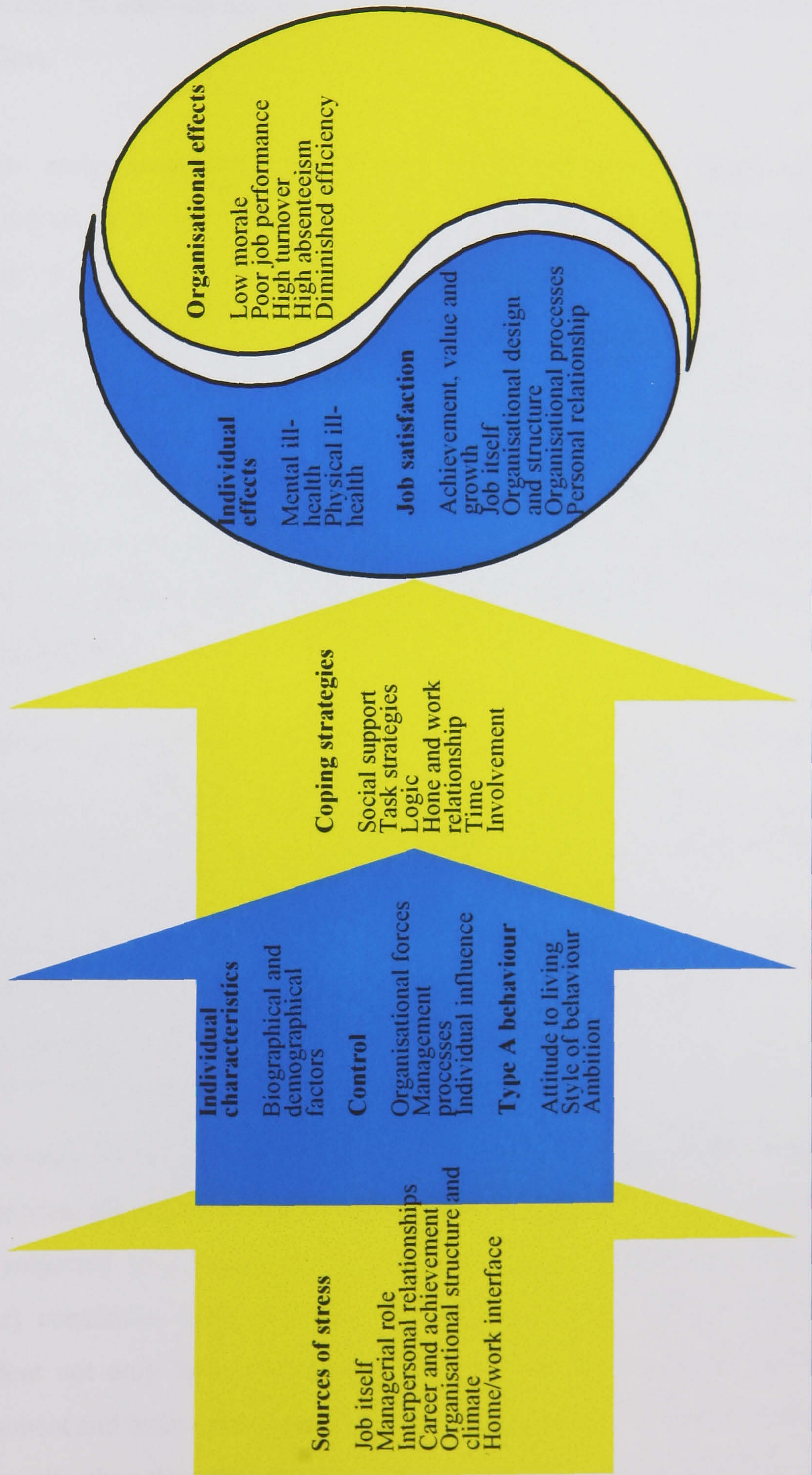
As can be seen from the above, morale is not a single dimension of organisational behaviour but recognises the effect of the job situation upon an individual's attitudes and includes the role of human needs as motivational forces. If morale is difficult to describe, it is even more difficult to measure. Indeed in industry, staff turnover, absenteeism and productivity are used as proxy measures for organisational morale. In view of the short term contracts which junior doctors are employed on, and the necessity for cross cover in the event of sickness, neither of the former proxy measures are satisfactory in medicine. Similarly productivity is not easily measurable in medical practice, particularly for junior doctors, as most routine data sources are coded by consultant and not practitioner. Therefore routinely collected measures of clinical activity such as number of patients treated, length of stay, mortality rates etc represent the consultant team activity and not an individual's activity. On the other hand, as discussed above, the consequences of low morale within the caring professions can be too obvious.

It is however possible to measure two of the effects of morale: organisational and individual stress and job satisfaction. One model which looks at both these issues is the Occupational Stress Indicator (Figure 4).³¹ In this model, the factors which give rise to stress are known as stressors. Established stressors include factors related to deprivation e.g. lack of food or shelter, relationships and occupation. It is occupational stressors which are of primary concern in the health profession, although wider social stressors are obviously important. Occupational stressors can be divided into six broad categories:

- Factors intrinsic to the job
- Factors related to the organisational structure and climate
- Factors related to career development
- Factors related to role within the organisation
- Interpersonal relationships
- Home/work interface

These sources of stress, when combined with individual factors (such as locus of control and type A behaviour) and coping techniques give rise to 2 outcomes - effects on the individual and upon the organisation. Within the individual effects is well-being (mental and physical ill-health), and within organisational effects is job satisfaction. It is this model which has been used to provide measurement of these aspects of morale. In view of the central importance of organisational stress to morale, the remaining discussion concentrates on stress and its effects in doctors.

Figure 4 The Occupational Stress Indicator Model



1.2.5 What is stress

The word stress is derived from the Latin *stringere*, meaning to draw tight. Over the centuries its meaning has gradually changed from that of hardship to that of hard effort.

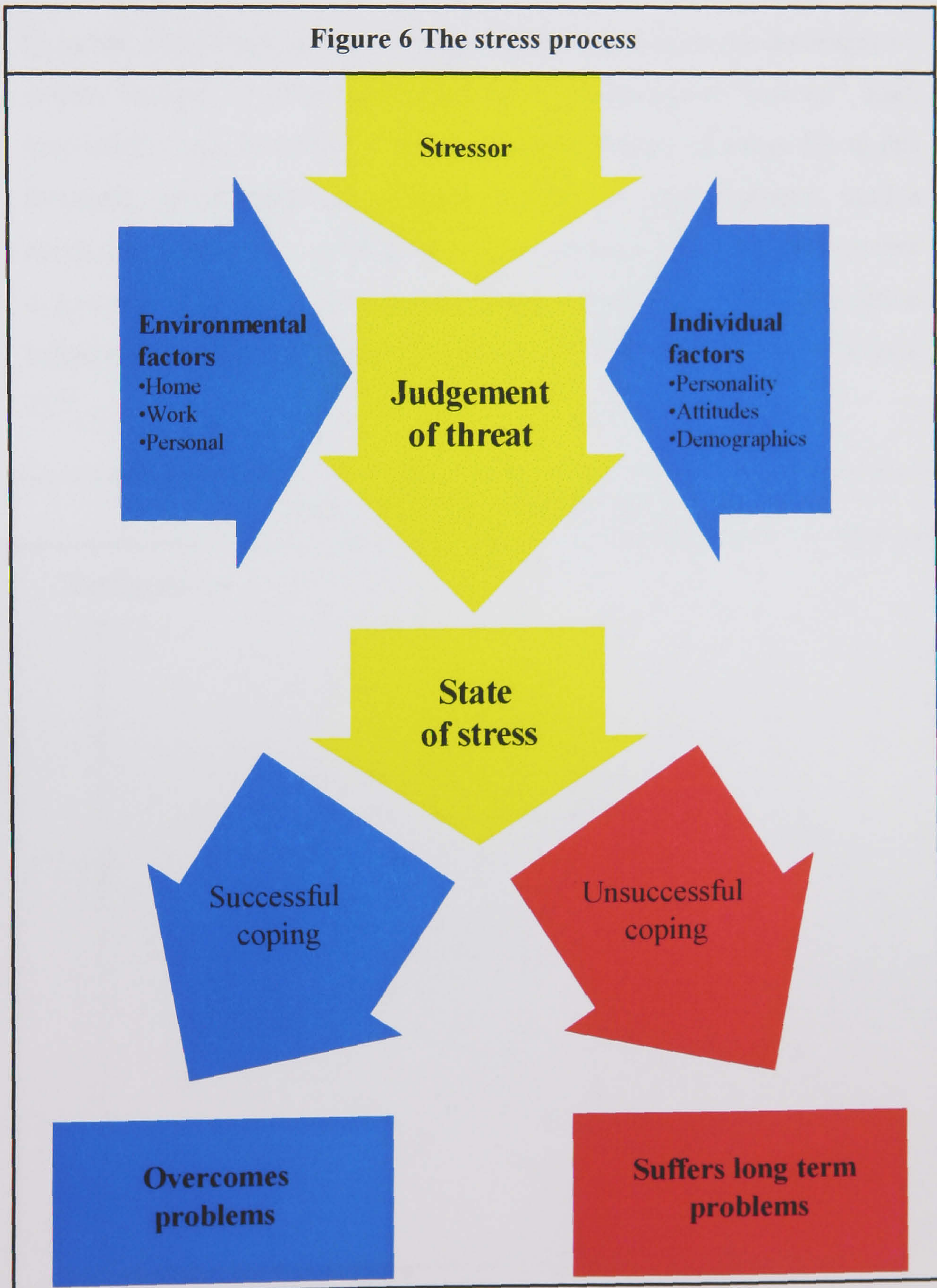
By the early twentieth century, the interrelationship between stress, physiological adaptation and ill-health was being explored. Initially this was confined to the physical reaction to stress,³² with no account of the psychological effects of stress, nor of the human's ability to recognise stress and take steps to circumvent it to a greater or lesser extent. By the 1960s the mental component of stress had been recognised and in 1976 Lazarus³³ suggested that stress depended on how an individual perceived a given threat. Cox³⁴ further developed this model, suggesting that stress was part of a complex interaction between man and his environment. The three key characteristics of stress are shown in Figure 5.

Figure 5 The essential features of stress

1. It is negative in quality, at least in an organisational sense. In the time of the sabre tooth tiger, it could undoubtedly be positive!
2. It is personal to the individual. What one person sees as job autonomy is seen by another as job ambiguity and causes stress.
3. It results from inadequate coping.

Most recently, Cummings and Cooper³⁵ have described a model known as the stress process (Figure 6) which attempts to pull all these factors together. In this, being subjected to a factor which has the potential of producing stress (a stressor) constitutes a threat to an individual. The judgement of threat is dependent not only upon the stressor involved, but also on the individual's environment and individual characteristics. If the judgement of threat is such that stress results, then the subject acts to restore a feeling of comfort, known as an

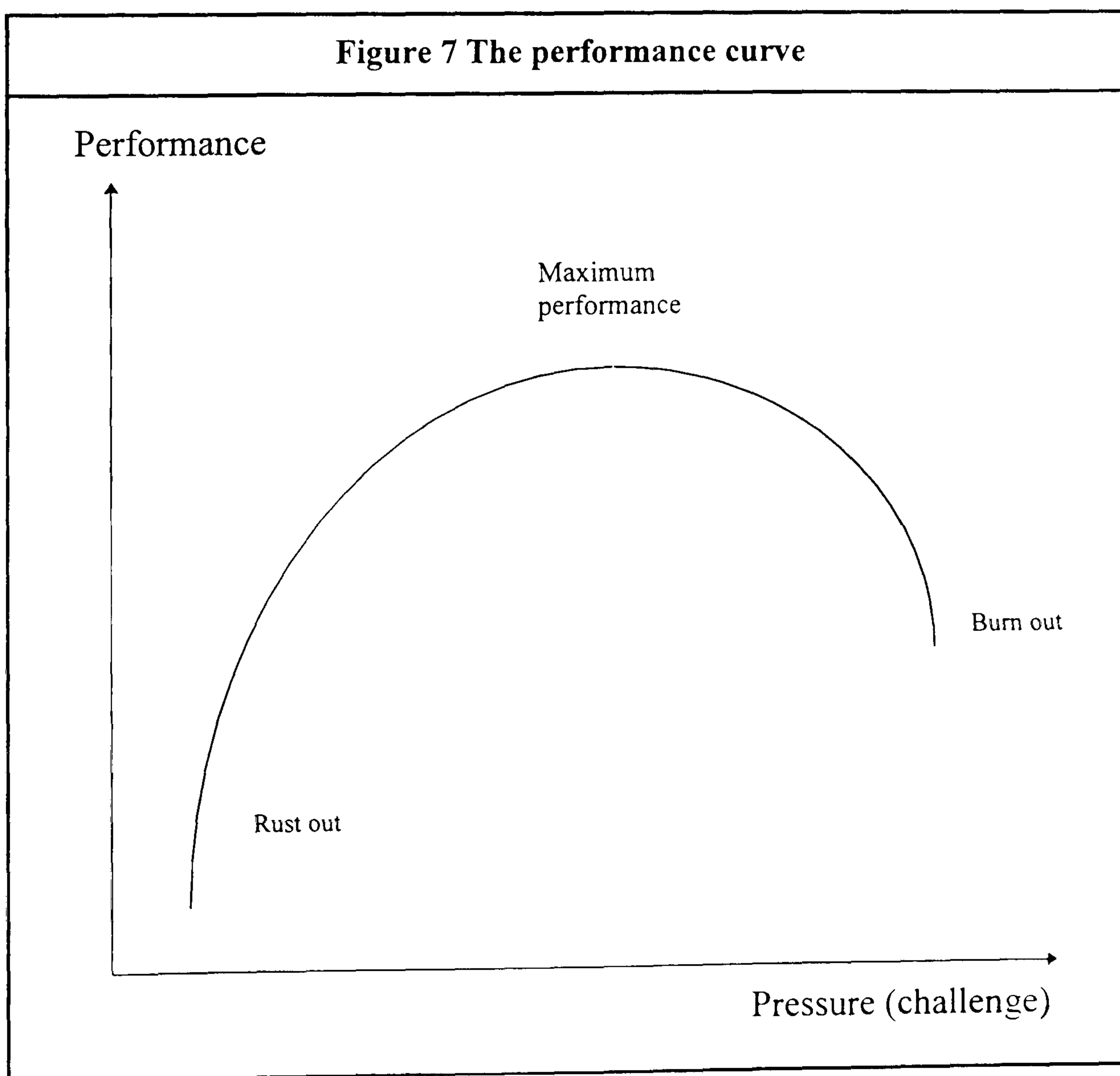
adjustment process or coping strategy. Failure to cope results in continued stress to the possible detriment to the individual and the organisation. By tailoring the stress process to the individual, it becomes obvious why one person thrives in a given environment whilst another suffers: a case of one man's meat is another man's poison.



In short then, stress can be defined as:

“a negatively perceived quality which, as a result of inadequate coping with sources of stress, has negative mental and physical ill-health consequences”³¹

However, stress is not all bad.³⁶ Without some form of stress (or challenge) we achieve nothing: no stress equates with poor performance or “rust out”. Each individual is able to tolerate a certain (variable) amount of stress. Up to this threshold, performance will generally increase as stress increases, until a maximum performance is achieved. Once over this threshold, performance diminishes with further increases in stress - “burn out”. This relationship between stress and performance is known as Yerkes Dodsons Law (Figure 7).³⁷



1.2.6 The stress process - individual factors

As can be seen from the stress process (Figure 6), stressors will not affect everyone in the same way: aspects of an individual's biographical history e.g. age, and sex will partly determine the effects of stress. Additionally two personality characteristics have been recognised as important predictors of response to pressure. These are:

- *Type A behaviour pattern* - this refers to an overall type of behaviour that is observed in people who are excessively time-conscious, competitive, ambitious, hard-driving, and confident - the stereotypical successful and dynamic executive!³⁸
- *Locus of control* - this describes the degree to which individuals perceive the things that happen to them are under their own control.³⁹

Additionally an individual's coping strategies for managing stress are influenced by, for example, training and experience.

1.2.7 Stress and the medical profession

There is a considerable body of information on stress and doctors from North America,^{40,41,42,43,44} much of it relating to the physicians impaired by alcohol or drug misuse.^{45,46,47} Although many of the occupational stressors, and effects of stress, facing doctors will be the same on either side of the Atlantic, the organisation of medical training and education differs, not least in the age of entry to medical school and first professional job; as does the organisation of health care services. There may therefore be different organisational and personal stressors at work in the UK compared to North America. Hence this overview is confined largely to the British literature.

Stress is implicated in many diseases, although establishing a causal relationship is difficult. While the short term consequences of stress may be minor e.g. minor physical complaints such as the common cold,⁴⁸ and emotional disturbances, along with altered or unusual behaviour, the long-term consequences may be serious. For example, stress has been implicated in ischaemic heart disease,^{49,50,51,52} asthma,⁵³ depression, suicide, drug addiction and alcohol abuse, and as a primary cause in burn out and post traumatic stress disorder.^{2,54}

Suicide has been consistently reported as occurring significantly more often in the medical profession than in the general population, particularly in those practising in the UK.^{10,55,56,57} The problem may be worse in young doctors,⁵⁸ among women,^{10,58} and in certain specialities e.g. psychiatry.^{58,59}

Alcohol abuse is a well-recognised behavioural response to stress, particularly amongst doctors.^{60,61} A Finnish study suggests that alcohol consumption is higher in doctors than the general population.⁶² A study of US house staff physicians indicated that 12.7% of respondents may be abusing alcohol⁶³ and work in Britain would indicate a similar sized problem.⁶⁴ Work in Scotland however, suggests that although doctors as a group remain at a higher risk of alcoholism compared to other professionals, this increased risk is largely accounted for by a cohort of heavy drinking doctors over the age of 45 years.⁶⁵

The National Sick Doctors Counselling Service, a voluntary counselling service set up to help colleagues in difficulty, keeps no statistics related to its work. However, the "majority" of the 300 or so doctors it sees each year are with alcohol or drug related problems.⁶⁶

In terms of concrete outcome measures, perhaps the two most comprehensive, routinely collated statistics that act as proxies for failure to cope with stress are suicide and cirrhosis of the liver due to excess alcohol consumption. OPCS reports¹⁰ indicate that doctors, and other similar professional groups, have a lower standardised mortality rate (SMR) for all causes of death than the general

population. However, when compared to similar professions, doctors have an increased death rate for cirrhosis, and external injury, poisoning, and suicide (see Figure 8).

Figure 8 Occupational mortality						
	Males			Females		
	Judges etc.	Dentists	Doctors	Judges etc.	Dentists	Doctors
All causes	-	59 **	66 **	33	123	79
Chronic liver disease and cirrhosis	115	117	115	-	-	-
External injury and poisoning	92	113	182 **	47	184	182 *
Suicide	128	222 **	172 **	-	284	371
* Significant at the 95% confidence level			** Significant at the 99% confidence level			

The reported incidence of stress and stress related illness in medical practitioners is given in Figure 9. A recent study ⁶⁷ of stress, anxiety and depression in hospital consultants (n = 65/81, 80% response rate), general practitioners (n = 257/322, 80% response rate) and senior health service managers (n = 67/121, 56% response rate) found that 47% (183/389) scored positively on the General Health Questionnaire, indicating high levels of stress. The Hospital Anxiety and Depression scale showed 25% (100/389) as being borderline cases for anxiety and 29% (111/389) to be experiencing clinically measurable symptoms. The findings for depression were also of some concern especially for GPs with 27% (69/257) scoring as borderline or definitely likely to be depressed. 14% (36/389) of GPs were also found to experience suicidal thinking. The author concluded that levels of stress, anxiety and depression in senior doctors and managers in the NHS seemed to be high and perhaps higher than expected. Other reports using inventories such as the GHQ, HAD and the Maslach Burnout Inventory (MBI)

would all suggest around a quarter to a third of doctors are suffering from significant mental health problems.^{8,9,64,67,68, 69,80}

Figure 9 Reported incidence of stress amongst medical practitioners in the UK				
Study group	Instru- -ment	Incidence of ill health	Sample size	Response rate (%)
Medical students ⁶⁸	GHQ	30% exhibited psychiatric caseness	318	79
PRHOs ⁶⁴	GHQ	50% showed emotional disturbance 28% showed evidence of depression	170	72
Junior doctors ⁸⁰	GHQ	50% showed maladaptive psychological disturbance ⁸⁰	20	*
Consultants ⁶⁷	GHQ	46% showing evidence of stress	65	80
	HAD	68% possibly or definitely suffering from anxiety 24% possibly or definitely suffering from depression		
GPs ⁶⁷	GHQ	48% showing evidence of stress	257	80
	HAD	85% possibly or definitely suffering from anxiety 38% possibly or definitely suffering from depression		
Consultants ⁶⁹	GHQ	27% classified as cases	1,133	78
Consultants ⁷⁰	GHQ	21% classified as cases	374	75
All doctors ⁸	GHQ	24% of males classified as cases 36% of females classified as cases	1,379	50.5**
All doctors ⁹	HAD	33.4% suffering from high emotional exhaustion	26	50
	MBI	16.7% suffering from moderate emotional exhaustion		
* based on interviews with 20 individuals				
** 50.5% over the entire survey				

1.2.8 Causes of stress within medicine

Factors which give rise to stress are known as stressors and include factors such as material deprivation, relationships and occupation. It is the occupational stressors that are of primary concern to doctors, although the wider social stressors are also important. Occupational stressors can be divided into 5 broad categories (Figure 10).

Figure 10 Occupational stressors	
<p style="text-align: center;">Factors intrinsic to the job</p> <ul style="list-style-type: none"> • Long, unsociable hours • Shift work • Work overload • Repetition • Working conditions • New technology • Danger of injury or infection 	<p style="text-align: center;">Factors related to the organisational structure and climate</p> <ul style="list-style-type: none"> • Lack of autonomy or control • Level of involvement in decision making • Poor communication • Closed, negative policies • Rapid, substantial change • Lack of feedback
<p style="text-align: center;">Factors related to role in organisation</p> <ul style="list-style-type: none"> • Responsibility for people • Conflicting demands or roles 	<p style="text-align: center;">Factors related to career development</p> <ul style="list-style-type: none"> • Poor status and pay • Poor promotion prospects
<p style="text-align: center;">Relationships</p> <ul style="list-style-type: none"> • Home-work interface • Interpersonal relationships at work 	<ul style="list-style-type: none"> • Promotion/demotion • Job security • Forced early retirement

Many of the occupational stressors are commonly encountered in the medical profession. It is therefore not surprising that Cooper *et al*³⁷ reported that the work of doctors was very stressful, rating 6.8 on a 10 point scale (10 = most stressful), based on the judgement of six stress researcher, taking in to account health trend evidence and occupational stress literature. However, whether these stressors cause adverse effects in the individual depends not only on the stressor but on the environment and the individual's makeup.

1.2.9 Stress and the medical career

Stress in the medical profession begins as a medical student and continues to a varying extent throughout a doctors professional career. Various general stressors, applicable to all medical practitioners have been identified (Figure 11),² along with stressors specific to doctors at varying stages of their career. Notable among these are the stressors faced by medical students, who are faced with a long undergraduate course, longer hours and shorter holidays,⁷¹ financial pressures over and above other students,⁷² a curriculum overloaded with factual information,⁷³ large numbers of examinations and constant face to face evaluation of their skills,² all within a highly competitive atmosphere.⁷⁴

Junior doctors face all the stressors of those practitioners in substantive appointments, and more beside (Figure 12). Long working hours^{6,64,75} and poor accommodation and catering facilities^{25,64,76} form two of the most common additional causes of stress for junior doctors. Short term contracts and the need to constantly create a good impression with senior staff in order to secure a good reference for the next job cause further stress - the threat of unemployment is very real for many juniors.⁷⁷ Inadequately defined roles are also cited as a cause of anxiety.²⁵ Additionally junior doctors have to balance the requirement for training, both in clinical skills and the time for reading and private work against the need to provide service work.² Finally, many junior doctors are also trying to establish a family life of their own at a time when on-call requirements mean they are in the hospital more than they are at home. Not only is this disruptive to

bringing up a young family, but also to maintaining a relationship with a spouse, who may also be on shift work, or tired from the demands of bringing up children almost single handedly. The conflict between home and work can therefore be considerable.^{64,68,80}

Figure 11 Stressors generally recognised within the medical profession²

Occupational risks	People contact
<ul style="list-style-type: none"> • Occupationally acquired illness, e.g. blood infection and exposure to toxic chemicals and dangerous or hazardous processes • Risk of physical violence especially in specialities such as psychiatry, mental handicap and accident and emergency 	<ul style="list-style-type: none"> • Face to face contact with people • Performing necessary but traumatic, invasive, intimate medical procedures • Public expectation and demand • Responsibility for people rather than objects
Emotional	Organisational
<ul style="list-style-type: none"> • Death and dying • Physical suffering and long term disability • Enormous consequences of wrong decisions, in terms of both emotions and litigation • Self doubts about responsibility for medical failure 	<ul style="list-style-type: none"> • Long hours of work and shiftwork • Interference by government and management • Remuneration differences between team members leading to dissatisfaction and tension within a team. • Conflict between professional role and personal values/conscience
Technology	<ul style="list-style-type: none"> • Conflict of loyalty to employers, colleagues and patients • Inflexibility, unpredictable career path, inability to change speciality without substantial retraining and uncertainty of obtaining consultant grade posts
<ul style="list-style-type: none"> • Advances in medical technology leading to moral and ethical dilemmas • Increasing number of technical procedures 	

Additionally, women doctors have extra stressors^{2,78,79} to male doctors such as conflict between work and personal life, child care and parental leave, sexual harassment at work, lack of female role models, and prejudice from patients.

Figure 12 Stressors affecting junior doctors ^{64,80,81}	
• Inadequately defined roles	• Poor living conditions
• Overwork	• Job insecurity
• Talking to distressed relatives	• Conflict between work and family
• Effects on personal life	• Career progression
• Serious treatment failures	• Fear of litigation
• Poor relations with consultants and more senior medical staff	• Accessibility to furthering professional education
• Having too few skills	• Alienation from family and social life

1.2.10 The consequences of stress to the individual

Stress has a detrimental effect on an individual's health and general well-being. These effects can be divided into 4 categories: physical, emotional, cognitive and behavioural (Figure 13).

Figure 13 The effects of stress on the individual

Physical effects	Emotional effects
<ul style="list-style-type: none"> • Headaches • Backache • Constipation or diarrhoea • Sweating • Dry mouth • Tight chest • Palpitations • Nausea and vomiting • Not being able to sleep • The TATT syndrome - tired all the time • Increased or decreased appetite 	<ul style="list-style-type: none"> • Feeling high or low • Hostility • Feeling guilty • Feeling frustrated • Feeling anxious • Feeling apathetic • Getting irritable and losing your sense of humour • Getting agitated or feeling fatalistically calm • Feeling useless, or feeling threatened or attacked in some way
Effects on thinking	Effects on behaviour
<ul style="list-style-type: none"> • Fearfulness • Becoming obsessive • Black and white thinking • Lack of concentration • Self attribution i.e. all failure is due to me, all success due to others • Everything is either a total success or a total failure • Thought blocks and loss of short term memory • The little devil on your shoulder shouting "failure" 	<ul style="list-style-type: none"> • Overeating or not eating • Drinking to excess • Smoking • Not bothering • Becoming argumentative or aggressive • Becoming cold and offhand, particularly with loved ones • Becoming over-demanding of affection • Loss of interest in sex • Driving too fast

1.2.11 The consequences of stress to the organisation

Stress can also be detrimental to the organisation. It is associated with low morale, poor job performance, high turnover, high absenteeism and diminished efficiency.³¹ It is reported that stress-related illness is responsible for more absenteeism from work than any other cause.⁸² The cost of sickness absence to the NHS is estimated at £180 million. and it is quoted that NHS staff lose approximately 1 million working days through smoking related complaints and that over 1,500 die as a result⁸³ (Figure 14).

Figure 14 The cost of stress to the employer

The cost of stress to the employer is high. It is estimated for British industry that:

- At least 40 million working days are lost each year due to nervous and other ailments associated with stress⁵⁴
- Drink related absenteeism costs industry £700 million a year⁵⁴
- 14% of all certified sick leave is due to mental health problems⁸⁴
- Cost of certified absence for anxiety and depression estimated at £5.3 billion⁸⁵
- The cost of workplace stress in the UK may be as high as 10% of GDP⁸⁶

There may also be additional financial costs in the future - in the USA employers are increasingly being held responsible for the health problems of their employees that result from job stress. Work related stress has become a leading cause of workers' compensation claims, with about 15% of occupational disease considered to be stress related. Insurers say that the average settlement is twice that for an injury claim.⁵⁴ Indeed the first UK award for damages due to occupational stress has recently been settled, with compensation of £200,000 awarded.⁸⁷

Aside from the financial costs of stress, there are other, less easily measurable, costs. Within the caring professions these may include: animosity towards a

patient or their relatives for getting the doctor out of bed, poor communication resulting in complaints and litigation (Figure 15). Recent work also suggests that psychological distress may have implications for an individual doctors confidence in performing clinical tasks, resulting in the need for extra supervision, or for more senior staff undertaking quite basic tasks.⁸⁸

Figure 15 Organisational consequences of stress in medicine

- | | |
|---|----------------------------|
| • Faulty decision making | • Poor communication |
| • Poor relationships - disrespect and animosity between colleagues and doctors and patients | • Poor quality performance |
| | • Low motivation |

1.2.12 The benefits of managing stress

There is no easy way of managing stress effectively at an organisational level. However, it costs industry large sums of money and there are considerable benefits to be had if stress can be controlled.

At an individual level, the benefits of managing stress are obvious: an increase in both physical and mental well-being; better interpersonal relationships, both at home and at work; better coping with stress when it arises; better long term health; less addictive behaviour and improved job satisfaction.

At an organisational level, morale is improved, and absenteeism and sick leave are reduced. Productivity and quality of work improve, and disputes decrease. Trained staff are more likely to remain with the company, and because of improved morale, job satisfaction and company image, the organisation is likely to be more attractive to prospective employees, investors, clients and customers.⁵⁴

Management within the USA is increasingly aware of the need to manage morale and stress among the workforce. This has arisen because of the need to safeguard themselves against lawsuits brought against the company. Unfortunately the situation within Britain is less encouraging.

1.2.13 Mechanisms for stress management

Stress management consists of identifying priorities, goals, and problems then learning how to cope with the problems and circumstances. People are trained to take a more objective long term view of their situation and understand their own reaction to stress.

Mechanisms for stress management include informal support network e.g. family and friends,⁸⁹ provision of counselling and support services,^{20,64,80,89} management training,⁶⁴ supervision,²⁰ “bitch sessions”, retreats, time management and stress management,⁹⁰ relaxation techniques.⁸⁹ Individual stress management techniques are however unlikely to be sufficient to deal with organisational stress, which should address the wider issues of hours of duty, and work overload.⁹¹

1.2.14 Summary of the literature

Although a reasonable body of knowledge exists about stress in doctors, only a part of it relates to UK junior doctors and then generally to small numbers of individuals recruited to studies. Studies of junior doctors also look only at stress issues rather than the larger issue of morale. However, those responsible for managing the health service are increasingly concerned about other issues which may be related to poor morale:

- an estimated 18-25% of doctors leaving the profession within 5 years of graduation²⁸

- large numbers of anecdotal reports of doctors leaving the profession due to stress and poor morale
- the large financial implications of training, and then losing, a doctor (£156,000 to graduation, and up to £188,000 if a degree is intercalated) plus the cost of post-graduation training and continuing medical education ¹¹
- any shortfall in the numbers of doctors available for work causes considerable problems for workforce planning, requiring a boost to the numbers taken into medical school for training (with a subsequent five plus year wait for them to become qualified), or the importing of overseas trained doctors.

This work was therefore commissioned by the Postgraduate Dean for the West Midlands to provide an overview of the morale of Pre-Registration House Officers working within and without the West Midlands, and to look at changes in morale and stress levels related to promotion to SHO level, in order to inform the above issues.

Section 2 Methods

2.1 The original methods

The following section describes the methods used in the original piece of work (West Midlands PRHOs in 1993). The method was adapted to fit the exact needs and circumstance of the following two surveys, and the adaptations are briefly discussed later in this section.

2.1.1 Aims and objectives of the study

The aims and objectives of the study were to determine:

- the job satisfaction of PRHOs
- the physical, mental and behavioural well-being of PRHOs
- the morale of PRHOs
- the main influences on the decision to study medicine
- the quality of career advice on medicine received at school
- the reasons for studying medicine
- future career ambitions
- the views of PRHOs on medicine
- the number of PRHOs who regret choosing a career in medicine
- the number of PRHOs considering leaving medicine
- the adequacy of medical training
- the working conditions of PRHOs

2.1.2 Subjects for the 1993 PRHO study

The population for this study was defined as all PRHOs working within the WM between February and July 1993. A total of 294 doctors were identified through two sources: the Postgraduate office, and the medical staffing officer for the 23 hospitals identified as having approved PRHO posts (appendix 1).

14 people had taken part in one of the pilot studies and were therefore excluded from the sample. Foreign graduates, comprising a sizeable minority of PRHOs in the West Midlands were excluded from the analysis for two reasons: some questions were specific to medical training in the UK; and foreign doctors are recognised to have additional stresses to home graduates e.g. loss of family support, language problems.⁸⁰ Additionally, other unpublished work by the author looking at stress in home and overseas trained Senior House Officers revealed that overseas doctors tended to be older than their British trained counterparts, often employed in posts that were more junior to those they had previously occupied overseas, and had differing personality profiles to home graduates, exhibiting greater Type B and internal locus of control traits, all of which might affect their response to stress. Of the remainder, one Senior House Officer had been incorrectly identified as a PRHO, and one person had failed to take up appointment. These people were also excluded. The final study population was therefore 235.

2.1.3 Measures

Many instruments have been used in other studies aimed at measuring ill health e.g. General Health Questionnaire, Hospital Anxiety and Depression scale, but are not designed to measure other aspects of morale such as job satisfaction. They are also quite transparent to health care workers (it is easy to manipulate the answers to give an expected result). A literature search, and consultation with psychologists revealed that no existing validated instrument satisfied all the requirements of the study, i.e. measured morale. However mental and physical ill-health and job satisfaction (proxy measures for organisational morale) could be measured using the Occupational Stress Indicator (OSI).³¹ It was therefore decided that the questionnaire should consist of two parts: an “in-house” section containing biographical and lifestyle data, career influences, regrets and intentions, services required and a second part consisting of sections of the OSI.

2.1.3.1 *The Occupational Stress indicator*

The OSI is a self completion questionnaire devised by Cooper, Sloan and Williams which was originally developed for use by white collar workers, but has been used successfully with health care professionals,^{92,93} including junior doctors. It is a reliable and validated (construct, content and empirical) instrument.³¹

The OSI gives a comprehensive analysis of occupational stress, based on cross referencing 4 key elements (see Figure 4). It is based on 25 years work with white collar workers (n = 6326), but has been found to be equally valid for use with health care professionals. In particular, it has been tested on mental handicap nurses (n = 45), general practitioners (n = 917), and a small sample of junior doctors, from PRHOs to senior registrars (n = 40).

The questionnaire consists of 7 sections, one to collect biographical data, and 6 that make up the indicator itself. Once data has been collected, it is used to compare groups within the organisation, or compare the organisation with the OSI database.

These surveys used 2 subsections of the OSI - mental and physical health (Figure 16) and job satisfaction (Figure 17).

Figure 16 How you assess your current state of health

Another outcome measure of stress. This is in two parts and concerns mental and physical ill-health.

1. Mental ill-health - taps a range of cognitive aspects of strain
2. Physical ill-health - looks at the somatic symptoms (e.g. loss of appetite etc.) of anxiety and depression

Figure 17 How you feel about your job - a measure of job satisfaction

This is an outcome measure of stress. This scale produces five sub-scales score which are summated to give an overall score for total job satisfaction:

1. Achievement value and growth - looks at respondents' perceived opportunities for advancement, how valued they feel and whether their job is rewarding
2. Job itself - measures satisfaction of the actual work carried out
3. Organisational design and structure - looks at how well the organisation functions
4. Organisational processes - looks at perceptions of whether the organisation facilitates or hinders getting things done.
5. Personal relationships - examines views about the quality of personal relationships at work

2.1.3.2 The “in-house” questionnaire

A review of literature, discussion with doctors and individuals familiar with designing questionnaires, together with personal experience provided the basis for the types of questions that needed to be addressed by the in-house questionnaire. The questionnaire was piloted three times on a total of 76 PRHOs, and the results of the pilot work incorporated in the final questionnaire.

Most questions fell into one of two categories: pre-coded, or opinion questions using a Likert type scale (Figure 18). For these questions, respondents were given a linear scale from 1-6 with comments printed at the extremities. They were required to circle the number that best described their responses to the questions asked. This was a similar approach as used for the questions the OSI questionnaire. On occasion, these scales were modified to include a “No” option at point 1, and a five point scale with comments at points 2 and 6 (see Figure 18).

Figure 18 Likert type scales											
A house officer's basic pay is £13,000. Do you consider this to be: <i>(please circle a number)</i>						Do you regret choosing a career in medicine? <i>(please circle as number)</i>					
1	2	3	4	5	6	1	2	3	4	5	6
Very poor			Very good			No	Yes slightly		Yes, very much		
Standard Likert scale						Modified Likert scale					

The questions appeared as a maximum of 14 subtitled groups (Figure 19). Care was taken to ensure that questions were easy to understand and non-ambiguous, and that the questionnaire appeared easy to complete and attractive. This was done to encourage co-operation as complicated questionnaires are likely to be set aside and left unanswered. Hypothetical and leading questions were also avoided.

Figure 19 Subsections of the questionnaire			
Q A1-A10	About yourself	Q H1-H10	How you view medicine
Q B1-B12	About your parents	Q I1-I6	Medicine and the family
Q C1-C5	Influences	Q J1-J7	Do you wish to leave medicine
Q D1-D10	Advice	Q K1-K21	You and your morale
Q E1-E2	Pressure to study medicine	Q L1-L10	Improvements
Q F1-F10	Why choose medicine	Q M1-M8	You and your hours of work
Q G1-G12	Your future career	Q N1-N14	You and your lifestyle

Attention was paid to the sequence of the questions, and questions were made as independent as possible from each another. A filter system was incorporated into the questionnaire, ensuring that respondents only answered questions that were relevant to them.

Most answers were pre-coded, requiring only a tick to be placed in a box, or a number to be circled. However, provision was made for additional answers if the respondent felt it necessary. These open ended responses were particularly important in the pilot stages, as they furnished data that was later incorporated into pre-coded answers. Pre-coded answers to questions were devised from experience, from existing questionnaires and from pilot work. The pre-coded answers provided for race and parental social class were taken from the 1991 census and the OPCS 1980 classification of occupations⁹⁴ respectively.

The finished questionnaire for the two PRHO surveys amounted to 28 pages, with instructions to respondents, along with examples where necessary, included (see appendix 3). A total of 144 questions were asked, including 14 open ended questions; and two OSI scales. The SHO questionnaire was abbreviated to remove baseline questions or to make them applicable to SHOs. A coding scheme was devised for the questionnaire. Various techniques were used to encourage completion of the questionnaire including a statement of confidentiality,⁹⁵ booklet format,⁹⁶ University sponsorship,⁹⁵ a letter emphasising the importance of responding,⁹⁷ follow up mailings,⁹⁸ and pre-paid return envelopes.⁹⁹

2.1.4 Pre testing and Piloting

The original questionnaire was piloted on three separate occasions, on a total of 76 PRHOs. The first two pilots were conducted locally, at the Queen Elizabeth Hospital in Birmingham, in July 1992 and were concerned with the structure, face validity and readability of the “in-house” questionnaire. Advice

on the content and design of the questionnaire was also sought from individuals experienced in questionnaire design and psychology.

A final draft “in-house” questionnaire was then piloted with the relevant questions from the OSI on PRHOs based at the Queen's Medical Centre Nottingham. The pilot was performed in November/December 1992 and took the form of a true postal survey, with completed questionnaires returned to the Institute of Public and Environmental Health at the University of Birmingham (the authors workplace) using a Freepost (pre-paid) self addressed envelope. The initial response was poor (13%), but increased to 43% following a telephone recall. The recall revealed that the majority of the questionnaires were never received by their intended recipient (half of the letters “disappeared” into the internal mail system or “the mess”). This was overcome by asking clinical tutors to distribute the questionnaires, which were then returned direct to the Institute of Public and Environmental Health. Some flaws in the wording and design of the questionnaire also became apparent. Face validity however appeared good. There were no problems associated with completion of the OSI.

The “in-house” questionnaire was further amended, and a subsequent pilot performed on PRHOs based at the Queen Elizabeth Hospital in Birmingham. The questionnaire was distributed and completed questionnaires collected by three volunteer PRHOs. The response was very good, 81% - no recall was performed. There were no problems associated with the completed “in-house” or OSI questionnaires and the devised codes were shown to be suitable.

2.1.5 Logistics

The finished questionnaires were presented in booklet form, an approach reported to improve response,⁹⁶ and included instructions and examples, and a statement of confidentiality (appendix 3). A covering letter, signed by the Postgraduate Dean (appendix 4), and personalised to the recipient, included details of why the survey was being conducted and why respondents should

reply. It gave a further assurance of confidentiality and included a return by date (approximately 4 weeks after distribution). A guide to the length of time required to complete the questionnaire was given. This information had been requested from those involved in the pilot studies.

All questionnaires had identification codes for the purpose of follow up. Although anonymity was not possible, confidentiality of results was maintained at all times, and all doctors, when followed up, were reassured of this. The master code list was held by the Research Fellow,ⁱ a non-medic, who was not in the position to influence careers.

Distribution of the questionnaire was undertaken by clinical tutors, who also undertook a first recall of all PRHOs, two weeks after initial distribution of the questionnaire. Each subject received a sealed envelope containing the questionnaire, a covering letter explaining the purpose of the survey and the need for a response, and a pre-paid "Freepost" envelope for return of the questionnaire direct to the Institute of Public and Environmental Health - respondents were not required to return questionnaires through their clinical tutors. A maximum of two telephone recalls were made by the Research Fellow to non responders.

2.1.6 Comparative data

The results of the survey were compared against two sets of normative data. These were:

- a large group (n = 6326) of white and blue collar non health workers,¹⁰⁰

ⁱ A Research Fellow was employed to help on this, and other related, work. The author was responsible for obtaining funding for the work, the study and questionnaire design, direction of analysis work, production of reports, papers, presentations and teaching related to the work, and for producing this thesis. Whilst the author had experience of all aspects of the work, the Research Fellow was responsible for much of the day to day administration of the surveys including follow up of responders, coding and data entry.

- a small sample (n = 40) of junior doctors (all grades i.e. pre-registration house officers to senior registrars) working in a large Northern Health Authority.⁹²

2.1.7 Analysis

Analysis was performed using the Statistical Package for the Social Sciences (SPSSx Pc).¹⁰¹ Group means were compared using:

- independent t-test for comparing two means
- one way analysis of variance (ANOVA) for multiple comparison of means. Tukeys procedure was used to determine which means differed significantly from each other (reported to be significant at the 5% level of probability).

Stepwise multiple linear regression was used to determine the relationship between the dependent variables (job satisfaction, and mental and physical ill-health) and independent variables (e.g. morale, personal demographic factors, pressure to study medicine, feelings of regret, careers advice, working conditions, status etc.).

Categorical data was subjected to Chi Square tests (χ^2). The test employed varied according to the type of data under investigation, generally:

- 2 * K test
- 2 * 2 test using Yates correction for greater accuracy.

Where appropriate, paired t-test, Wilcoxon matched pairs sign rank test and McNemar tests were used.

2.2 Validity of the questionnaire

Questionnaires should be assessed for validity and reproducibility in order to assess how reliable the results and conclusions are. This was checked in several ways.

2.2.1 Face validity

Does the instrument on common-sense grounds appear to measure what it purports to measure? The in-house questionnaire was reviewed by senior doctors and psychologists, and no major problems were identified. Additionally, those who took part in the pilots were asked to comment on any questions which they failed to understand or thought could be worded better. Few comments were received.

2.2.2 Construct validity

Do the values produced by the instrument conform to expectations about the attribute? Although it was not possible to accurately check the results of the questionnaires, several questions were included which gave expected answers: the age distribution of the respondents had a mean value as expected, with a distribution heavily skewed to the left, also as expected. The majority of respondents had gone on to study medicine immediately after A levels, and had entered medical school in 1987, again as expected. Respondents had similar family backgrounds to those reported elsewhere.¹⁰²

2.2.3 Criterion validity

Does the instrument produce values which agree with those obtained from a “gold standard”? The OSI is a valid and reliable indicator which was used as the gold standard in this instance. Several comparisons, based on the responses to the morale of PRHOs in the West Midlands survey in 1993, were made, all of which gave highly significant ($p < 0.001$) correlation coefficients, r (Figure 20).

Figure 20 Criterion validity of the “in-house” questionnaire		
In-house question	Against OSI	r #
What’s your morale like?	Job satisfaction	0.47 *
What’s your morale like?	Mental ill-health	-0.46 *
What’s your morale like?	Physical ill-health	-0.47 *
Do you find your job satisfying?	Job satisfaction	0.49 *
Do you feel stressed?	Mental ill-health	0.60 *
Do you feel stressed?	Physical ill-health	0.41 *
Do you consider that the job satisfaction offered by medicine at PRHO level is.....	Job satisfaction	0.50 *
Do you consider that the job status offered by medicine at PRHO level is.....	Job satisfaction	0.45 *
# based on sample sizes, $n = 186-193$		* t test $p < 0.001$

2.2.4 Reproducibility

Does the same person give the same answer on two different occasions? It was not possible to ask the same question of the same person on two separate occasions. However the questionnaire had one question that asked more or less the same at different points in the questionnaire (“Do you regret choosing a

career in medicine?” vs. “Do you regret your decision to pursue a career in medicine so far?”). The correlation coefficient, r , was 0.87 (t test, $p < 0.001$).

Additionally, of the 34 people who reported that a parent had pressurised them into studying medicine, 26 (76.5%) also reported that parental pressure or expectation was a reason for them studying medicine.

In addition 3 of the 4 respondents who felt considerable pressure to study medicine also felt considerable influenced by their parents.

2.3 Adaptation of the methods for the follow up survey of SHOs

2.3.1 Aims and objectives of the follow up study

The aims of the survey were two fold:

- to determine morale and stress levels among a cohort of Senior House Officers
- to determine changes in morale and stress levels amongst a cohort of doctors following their transition from Pre-registration House Officer to Senior House Officer status.

The specific objectives of the survey were to:

- determine job satisfaction levels, morale and physical, mental and behavioural well-being of a cohort of SHOs and determine whether these are better or worse than experienced at PRHO level
- determine the number of SHOs who regret studying medicine and ascertain the reasons for the regret. Also to determine whether more or less doctors regret studying medicine at SHO level than at PRHO level

- determine the number of SHOs considering leaving medicine and ascertain whether this is greater or less than at PRHO level
- determine the future career ambitions of SHOs and determine whether these are different to their ambitions at PRHO level
- determine satisfaction with training at PRHO level
- determine the working conditions of SHOs

2.3.2 Subjects

The population for the study was defined as doctors who responded to the Morale of Junior Doctors' Survey conducted in the West Midlands Region (WM) in 1993. This represented a total of 196 doctors. All of the doctors were Pre-Registration House Officers (PRHOs) during the time of the 1993 survey and expected to hold Senior House Officer (SHO) status for this study.

2.3.3 Measures

This survey was based on the questionnaire developed to measure the morale of PRHOs in 1993 (section 2), with a few adaptations (appendix 5).

- The “in house” questionnaire was shortened, and various questions rephrased to make them applicable to SHOs.
- Three additional questions relating to respondents satisfaction with training at PRHO level were incorporated.
- Two subsections of the OSI were incorporated - dealing with the outcome measures of morale - stress (the current state of mental and physical health), and job satisfaction.

2.3.4 Methods

This survey followed the methods given for the original survey, with the following adaptations:

- Doctors who responded to the 1993 morale survey were identified from the identification codes on returned questionnaires. Contact addresses for the doctors were obtained from the 1994 Medical Register, and if absent from the Register from the General Medical Council (GMC) records. From the 196 doctors identified, 194 were traced. The two doctors who could not be traced were excluded from the sample. It was unknown whether these individuals were simply uncontactable, or had given up work because of ill-health or stress.
- Given that the time-scale for the follow up was only 18 months, it was decided to exclude any doctors who had spent any substantial (6 month) period of time working abroad, in general practice or research from the survey. These individuals would have been exposed to non UK hospital working conditions and culture for a considerable period of the follow up period and might bias the results. Unfortunately the small number of individuals that this applied to had been out of the UK hospital environment at different times. If they had all been in alternative working environments at the time of the follow up survey, it would have been possible to look at whether a change in environment had resulted in a change in stress or job satisfaction.
- A return date of approximately 4 weeks after distribution was given
- Doctors were posted a copy of the questionnaire and covering letter in September 1994, 18 months after the original survey.
- The first recall was performed approximately 1 month after distributing the initial questionnaires. This recall took the form of a letter reminding people about the survey and asking for co-operation.
- The second recall was performed about 1 month after the first recall and consisted of sending another questionnaire and covering letter. The addresses

of those doctors who had not responded to the second recall were checked against their current addresses as held by the GMC in December 1994. Those with different addresses were sent another copy of the questionnaire and covering letter. No further recalls were performed.

- Results are compared wherever possible with the results given by the same individuals in 1993 i.e. only those who responded to both surveys are included for comparative purposes.

2.4 Adaptation of the methods for the multi region study of PRHOs

2.4.1 Aims of the study

After completing the original survey of PRHOs working the WM, it was agreed to extend the survey to look at PRHOs working both within and without the WM. This was to seek information on:

1. the generalisability of this method of assessing morale
2. whether the findings of low morale and high stress levels were a function of working in the West Midlands
3. whether the findings of low morale and high stress levels were a function of one particular cohort of junior doctors working in the West Midlands
4. whether there were any substantial improvements in, for example, accommodation, working condition over a one year period due to initiatives such as the New Deal.

2.4.2 Objectives of the study

The aims and objectives of the study were to determine:

- the job satisfaction of PRHOs
- the physical, mental and behavioural well-being of PRHOs
- the morale of PRHOs
- the main influences on the decision to study medicine
- the quality of career advice on medicine received at school
- the reasons for studying medicine
- future career ambitions
- the views of PRHOs on medicine
- the number of PRHOs who regret choosing a career in medicine
- the number of PRHOs considering leaving medicine
- the adequacy of medical training
- the working conditions of PRHOs

2.4.3 Subjects

The population for the study was defined as all PRHOs working within the West Midlands Regional Health Authority, South West Regional Health Authority, Oxford Regional Health Authority (as defined in Spring/Summer 1994), and two thirds of Trent Region^{ii,iii} between February and July 1994. A total of 828 doctors were identified through sources: the Postgraduate office, and medical staffing officers or the 60 hospitals identified as having approved PRHO posts (appendix 2).

ii North Trent - North Derbyshire HA, Doncaster HA, Sheffield HA, Rotherham HA and Barnsley HA.

iii Mid Trent - North Lincolnshire HA, North Nottingham HA, Southern Derbyshire HA and Nottingham HA.

Since the questionnaire was specific to the training of British doctors, all foreign graduates were excluded from the analysis. This is because foreign doctors are recognised to have additional stresses to home graduates e.g. loss of family support, language problems.⁸⁰ The final study population was therefore 735.

2.4.4 Measures

This survey was based on the questionnaire developed to measure the morale of PRHOs in 1993 (appendix 4).

2.4.5 Methods

This survey followed the general methods given for the original survey, with the following adaptations:

- A covering letter, signed by the Postgraduate Deans of all regions bar Oxford (where the Postgraduate Dean had recently died) was produced. The covering letter for Oxford was signed by the Survey Research Fellow but carried a statement that the survey was approved by of the Acting Director of Postgraduate Medical Education.
- The questionnaires were distributed during March 1994, and were returned direct to the Institute of Public and Environmental Health - respondents were not required to return questionnaires through their clinical tutors.
- Within the West Midlands, distribution and follow up of the survey took place according to a previous protocol (to allow comparison between the West Midlands group in 1993 and in 1994).
- Outside the West Midlands, clinical tutors were asked to distribute questionnaires to PRHO's in person, and to follow them all up by telephone/letter 2 weeks later, and 6 weeks later.
- There was a further written reminder to all PRHOs after a further month, distributed by Clinical tutors. Those individuals who had mislaid their

questionnaire were asked to contact the Research Fellow in order to obtain a second copy.

- Co-operation for this protocol was not obtained from all hospitals concerned. Distribution of the questionnaires was undertaken by clinical tutors or postgraduate administrators in all but one case. They also, in all but 2 cases, undertook a first recall of all PRHOs, two weeks after initial distribution of the questionnaire.
- Questionnaires and follow ups were distributed by mail direct from the Institute of Public and Environmental Health to the hospitals where co-operation from the tutors was not obtained.
- Comparison of the OSI results was made for PRHOs working in the West Midlands only with the original group of West Midlands PRHOs (i.e. comparing PRHOs working in the west Midlands in 1993 and 1994).

Section 3 Results of the survey of the morale of Pre-Registration House Officers in the West Midlands in 1993

3.1 Response rate

The study population amounted to 235 of the total number of PRHOs identified (294, see page 56). 196 replied, giving an overall response rate of 83.4%.

Not all respondents answered every question (selective response), therefore results for some questions are based on less than 196 respondents.

3.2 Biographical details

The mean age of respondents was 24.5 years. The majority were Caucasian, entered medical school immediately after A levels, and single (Figure 21).

Over four fifths (83%) of the respondents had fathers, and 55% had mothers, in social classes I and II. A higher proportion of female respondents had parents in either social class I or II (χ^2 , not significant). Very few respondents came from working class/manual labour backgrounds (III_m, IV, V). Only 15.8% of respondents had one or both parents who were doctors.

Figure 21 Biographical details of respondents	
Mean age	24.5 years (median 23 years, range 23-36 years)
Sex of respondents	Male = 91 (46.7%) Female = 104 (53.3%) Unknown = 1
Marital status	Single = 166 (84.7%) Married or cohabiting = 30 (15.3%)
Presence of children	3 males and 1 female had children
Ethnic origin	White = 158 (80.9%) Indian = 18 (9.3%) Pakistani = 5 (2.6%) Chinese = 6 (3.1%) Other = 9 (3.8%)
Entry to medical school	136 (69.6%) had entered medical school in 1987 157 (80.5%) had entered University immediately after A levels.
University of graduation	Birmingham (58.2%) Leicester (10.7%) Reminder attended one of 17 Universities
Intercalation of a degree	46 (23.7%)

3.3 Influences and pressure to study medicine

In this section the term “influence” is taken to mean a positive unconscious motivation to do something. “Pressure” has been used in the sense of active persuasion, perhaps in the face of resistance.

103/196 (52.6%) respondents felt that their parents had influenced their decision to study medicine to some extent. Of those who considered themselves influenced, 64 (62.1%) considered this influence to be weak, 22 (21.4%) moderate and 17 (16.5%) strong. Twenty one (67.7%) respondents whose parents were doctors felt that their parents influenced their decision to become a doctor, compared with 82 (50%) of respondents whose parents were not doctors. These differences were not significant.

38 respondents had a doctor as a first degree relative, with a further 28 having a doctor as a second degree relative. Of the 66 respondents with medical relatives, 40 (60.6%) felt that their decision to study medicine had been influenced by this relationship to some degree. The majority however felt that this influence had only been slight.

62 respondents believed that their decision to study medicine had been influenced by other non-family contacts. The most frequently cited sources of influence were friends (23/62), teachers (28/62) and the school careers service (22/62). Only five people had been influenced by their family doctor.

45 respondents stated that they had been pressurised into studying medicine to some degree. The majority of these were under only a small amount of pressure, although for an unfortunate 4 respondents this pressure was thought quite considerable. The main sources of pressure were parents (39/45) and schools (16/45). 13.3% of respondents with doctor-parents felt pressurised compared with 21.3% whose parents were not doctors, (χ^2 , not significant).

Of the 4 who were under considerable pressure, all felt this pressure was exerted by parents, 3 by school, 2 by friends and one admitted that the pressure was self inflicted. Three of the 4 also felt that they were considerably influenced to study medicine by their parents.

34 respondents reported that they studied medicine because of parental pressure or expectations. 94% of these people also reported that their parents had influenced them to some degree and 76.5% reported that their parents had pressured them into studying medicine in a previous question.

3.4 Careers advice prior to medical school

Only 48.5% (94) of respondents had received specific careers advice about medicine. Of these 94 people, the school had actively volunteered the information in 33 cases, the remainder had sought it for themselves. Eighty eight (45.6%) of respondents had stated that their school had suggested to them that a career in medicine would be “a good idea.” 39.2% of respondents had read publications such as “Learning Medicine”¹⁰³ before applying to Medical School.

Nearly all of the respondents were aware of the length of undergraduate training prior to applying to Medical School (96.9%). However only 32.6% were aware of the length of postgraduate training at that stage of their career and 38.7% (75) aware that PRHOs were expected to work long hours. Only 41 (20.9%) respondents were aware of all these three facts.

There was no significant difference in the knowledge of respondents who had received career advice at school about medicine and those who did not with regard to these three issues. However, respondents with doctor-parents were significantly more likely to be aware of the length of postgraduate training than respondents of non-doctor parents (χ^2 , $p < 0.02$). Males were also

significantly more likely to be aware of the length of postgraduate training than females (χ^2 , $p < 0.05$).

In terms of practical experience of medicine such as spending time with a doctor, 81 respondents had been able to spend time with a GP or a consultant before applying to medical school. School had arranged this in 19 cases, and someone other than school in 56 cases. Six had the opportunity arranged by both methods. Only 16 respondents had the opportunity to spend time with a PRHO. 58% of respondents who were children of doctors spent time with a doctor prior to application, as did 40% of respondents whose parents were not doctors (χ^2 , not significant).

3.5 Desire to study medicine

Over half (107) of the respondents had decided that they wished to be doctors by the age of 15 (mean 14.7 years (sd 3.75), range “earliest memories” to 32 years). The majority expressed a strong desire for this (median 5 on a scale of 1 (very weak) to 6 (very strong)). For 4 people it had been very weak. In addition 23.7% had never contemplated studying anything other than medicine.

Female respondents had a significantly stronger desire than males (χ^2 , $p < 0.05$), as did those who had decided to be a doctor before the age of 15 compared to those who decided after 15 years of age (χ^2 , $p < 0.001$). See Figure 22. Those who felt pressured into studying medicine showed a weaker desire to study medicine than those who had not felt pressurised (χ^2 , $p < 0.05$).

Figure 22 Desire to study medicine		
	Males n (%) Base = 92	Females n (%) Base = 103
Weak desire (1-2)	3(3.3)	1(1)
Moderate desire (3-4)	33(35.9)	24(23.3)
Strong desire (5-6)	56(60.9)	78(75.7) *
* χ^2 , $p < 0.05$		

3.6 Reasons for studying medicine

Reasons for studying medicine are given in Figure 23. Over two thirds stated that they enjoyed working with people, or that they wished to help people. Twenty seven percent stated that they studied medicine for the money! Females were more likely to choose medicine because they enjoyed working with people (χ^2 , $p < 0.02$), or because it was something they had always wanted to do, or because they wanted to have power. Men were more likely to study medicine because of its professionalism, or for money. Equal numbers studied medicine because they were good at science.

Figure 23 Reasons for studying medicine

Reasons for studying medicine	Total N (%) Base = 196#	Males N (%) Base = 91	Females N (%) Base = 104
Enjoyed working with people	134 (68.7)	54 (59.3)	80 (76.9) *
In order to help people	132 (67.7)	58 (63)	74 (71.8)
Good at science at school	111 (56.9)	51 (56.0)	60 (57.7)
Always wanted to be a doctor	72 (36.9)	28 (30.8)	44 (42.3)
Studied medicine for its professionalism	64 (32.8)	23 (25.3)	31 (29.8)
In order to save lives	57 (29.2)	27 (29.7)	30 (28.8)
For respect	8 (4.1)	6(6.6)	2(1.9)
Studied medicine for the money	53 (27.2)	27 (29.7)	26 (25.0)
Parental pressure/Expectations	34 (17.4)	17 (18.7)	17 (16.3)
Studied medicine in order to have power over others	12 (6.2)	2 (2.2)	10 (9.6)
Job security	13 (6.6)	9(9.9)	4(3.8)
Course/subject	14(7.1)	8(8.8)	6(5.8)
For interest	8 (4.1)	4(4.4)	4(3.8)
Not good enough to be a vet	8 (4.1)	2 (2.2)	4 (3.8)
For the challenge	10(5.1)	6 (6.6)	4(3.8)
Unable to pursue original career choice	3 (1.5)	2 (2.2)	1 (1)
Intellectual reasons	8 (4.1)	2 (2.2)	6(5.8)
Other reasons	11 (5.6)	5 (5.5)	6 (5.8)

* χ^2 , $p < 0.02$

one individual failed to declare his/her gender, but is included in the "total" column. Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

3.7 Leaving before graduation

A total of 88 (45.1%) of respondents stated that they contemplated leaving medical school prior to graduation. The majority (24, 27.3%) contemplated leaving medicine in their third year, presumably when faced with clinical issues and dilemmas, and a high proportion also considered leaving at more than one stage (32, 36.4%).

Respondents were asked how seriously they contemplated leaving medicine on a scale of 1 (not very seriously) to 6 (very seriously). Forty respondents (45.5%) reported that they had not contemplated leaving very seriously (rated 1 or 2). Twenty seven (30.7%) rated it moderately (3,4) and 21 (23.9%) rated it seriously (5,6).

The reasons for continuing undergraduate studies are shown in Figure 24. Many of the reasons could be interpreted as a maladaptive or transient response to stress. Indeed respondents who had to resit an exam were significantly (χ^2 $p < 0.05$) more likely to contemplate leaving prior to graduation. However contemplating leaving medicine before graduation was not associated with regret.

Figure 24 Reasons for continuing undergraduate studies	
Reasons for continuing study	Total n = 88 (%)
Didn't know what else to do	43 (48.9)
Unable to transfer for financial reasons	18 (20.5)
Passed exams	17 (19.3)
Waste to leave	12 (13.6)
Own attitudes changed, becoming more favourable	11 (12.5)
Things would improve	10 (11.4)
Could not be bothered to change	9 (10.3)
Pressure from others to remain	8 (9.1)
Easiest route	6 (6.8)
Worthwhile in the long term	3 (3.4)
No alternative	2 (2.3)
Solved problems	2 (2.3)
# Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.	

3.8 Regretting and leaving medicine

62.6% stated they regretted studying medicine somewhat. The main reasons for regret were interference with the rest of one's life, long hours and poor pay (Figure 25). Significantly more females than males expressed regret (χ^2 , $p < 0.001$), and females were more likely to express regret because of long hours (χ^2 , $p < 0.001$), interference with their lives (χ^2 , $p < 0.001$) or because of the responsibility (χ^2 , $p < 0.02$). There was no association between desire to

study medicine and regret and there was no association between regret and having considered a career other than medicine.

Respondents with doctor-parents were significantly less likely to regret choosing a career in medicine than those with non-doctor parents. (χ^2 , $p < 0.02$). Similarly those respondents who were aware of issues such as the length of PRHOs hours and of post-graduate training expressed less regret than those who were unaware of these issues (χ^2 , $p < 0.01$). Those respondents who considered that postgraduate training was too long were also more likely to experience regret (χ^2 , $p < 0.05$).

Those respondents who regretted entering the medical profession were more likely to be classed as a “case” for mental (χ^2 , $p < 0.01$) or physical (χ^2 , $p < 0.001$) ill-health by the OSI.

17.9% stated that they would not study medicine if they had their time again (13 men, 21 women, χ^2 , not significant). Most respondents gave more than one reason for not studying the subject again. Reasons included hours being too long, interference with the rest of one’s life, poor pay, too stressful.

Respondents were asked to state if they would leave the profession at PRHO level for a variety of scenarios. 10.7% stated they would leave because of poor pay; 46.2% because of poor working conditions; 43.6% because of the long hours required of a PRHO; and 20% because of managerial constraints (Figure 26). Other reasons cited included others attitudes, lack of support, lack of enjoyment and effect on personal life. Females were significantly more likely to consider leaving because of the long hours of work than males.

Figure 25 Reasons for regretting entering medicine			
Base = 195	Total n = 196# (%)	Males n = 91	Females n = 104
Medicine interferes with the rest of one's life	105 (54.1)	37 (40.7)	68 (65.4) **
Too long hours	103 (53.1)	36 (39.6)	67 (64.4) **
Pay is poor	55 (28.4)	25 (27.5)	30 (28.8)
Professional exams too hard	24 (12.4)	10 (11.0)	14 (13.5)
Too much responsibility	21 (10.8)	4 (4.4)	17 (16.3) *
Experiences at and of work	16 (8.2)	8 (8.8)	8 (7.6)
Attitudes of others	17 (8.7)	10 (11.0)	7 (6.7)
Career structure	7 (3.6)	5 (5.5)	2 (1.9)
Other reasons	18 (9.2)	3 (3.3)	15 (14.4)

* χ^2 , $p < 0.02$ ** χ^2 , $p < 0.001$ # one individual failed to declare his/her gender, but is included in the "total" column. Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

Figure 26 Reasons to leave at PRHO level			
	Total n (%)#	Male n (%)	Female n (%)
Inadequate pay	21 (10.8)	11 (12.1)	10 (9.6)
Poor working conditions	90 (46.2)	43 (47.3)	47 (45.2)
Long hours	85 (43.6)	30 (33.0)	55 (52.9) **
Managerial constraints	39 (20.0)	19 (20.9)	20 (19.2)
Other	22 (11.2)	10 (11.0)	12 (11.5)

** χ^2 , $p < 0.01$ # one individual failed to declare his/her gender, but is included in the "total" column. Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

95.4% of respondents were intending to take up an SHO post, 7 respondents were unsure, and 2 people were leaving the profession. However, only 82.5% were intending to pursue a career in medicine beyond SHO level (11.3% not intending to continue, 12 people unsure). 10.3% (20/195) had taken steps towards leaving the profession, with 12/20 reading job adverts, 6/20 applying for jobs and 3/20 applying to study another subject. The alternative careers mentioned were many and varied, but included pharmacy, management and administration, law, journalism and business. Some gave more than one reason indicating that they were unsure of their next career move. Of those that had taken steps to leave 35% had received careers advice prior to graduation and 30% had received career advice in their pre-registration year. There was no significant differences in career advice received by those who had taken/not taken steps to leave.

3.9 A career in medicine

49.2% of respondents had received careers advice in their pre-registration posts. In addition, only 53.1% had received some form of careers guidance before graduation.

When asked which career path they would like to follow, 53.1% stated a hospital speciality, with medicine, surgery and psychiatry the most preferred. 14.4% were undecided, 1 person wished to undertake missionary work, and 3 people stated a non medical career path. The rest (59, 30%) intended to become GPs. Significantly more females intended to pursue a career in General Practice whereas significantly more males than females were planning a career in surgery. No other significant differences were observed. See Figure 27.

Figure 27 Career Intentions at PRHO level			
Career Intention	Total (%) n=194	Males (%) n=91	Females (%) n=103
Hospital- no speciality	23 (11.9)	13 (14.3)	10 (9.7)
General Practice	61 (31.4)	21 (23.1)	40 (38.8) *
Hospital -surgery	19 (9.8)	17 (18.7)	2 (1.9) ***
Hospital -medicine	20 (10.3)	10 (11.0)	10 (9.7)
Psychiatry	14 (7.2)	4 (4.4)	10 (9.7)
Paediatrics	6 (3.1)	2 (2.2)	4 (3.9)
Obstetrics and Gynaecology	8 (4.1)	3 (3.3)	5 (4.9)
Pathology	1 (0.5)	0	1 (1.0)
Anaesthetics	4 (2.0)	0	4 (3.9)
Radiology	5 (2.6)	3 (3.3)	2 (1.9)
Radiology or Anaesthetics	1 (0.5)	1 (1.1)	0
Non-medical Direction	3 (1.5)	3 (3.3)	0
Missionary work	1 (0.5)	0	1 (1.0)
Don't know	28 (14.4)	14 (15.4)	14 (13.6)
χ^2 * $p < 0.05$ *** $p < 0.001$ # one individual failed to declare his/her gender, but is included in the "total" column. Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.			

Reasons for choosing a particular career path were varied, although the main reason was experience and enjoyment (see Figure 28). Reasons differed according to subject and sex, although not significantly. Females were more likely than males to choose their career for reasons based on career and social considerations. Males on the other hand were more likely to base their choices on enjoyment, challenge and following their ambition (choosing a career they always wanted to specialise in) compared with females.

Figure 28 Reason for selecting a particular career path			
Reason for choosing a career path	Males (%) n=91	Females (%) n=104	Total (%) n=196
Interest in specialty	14 (15.4)	14 (13.5)	28 (14.3)
Social considerations	9 (9.9)	20 (19.2)	29 (14.8)
Experience of specialty	26 (28.6)	31 (29.8)	57 (29.1)
Enjoyment of specialty	28 (30.8)	27 (26.0)	55 (28.1)
Strength/best suited subject	5 (5.5)	8 (7.7)	13 (6.6)
Career considerations	7 (7.7)	14 (13.5)	21 (10.7)
Advice	11 (12.1)	10 (9.6)	21 (10.7)
Elimination of other subjects	6 (6.6)	11 (10.6)	17 (8.7)
Personal Involvement	1 (1.1)	4 (3.8)	5 (2.6)
Always wanted to specialise in this area	7 (7.7)	3 (2.9)	10 (5.1)
Challenge	5 (5.5)	2 (1.9)	7 (3.6)
Work in primary care	1 (1.1)	4 (3.8)	5 (2.6)
Dislike hospital medicine	3 (3.3)	11 (10.6)	14 (7.1)
Personal reasons	6 (6.6)	4 (3.8)	10 (5.1)
Other	10 (11.0)	5 (4.8)	15 (7.7)
# one individual failed to declare his/her gender, but is included in the "total" column. Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.			

Twenty three people (9 males and 14 females, not significant) reported that realistically they would be unable to follow their first choice career. Twenty of these people had planned a hospital based specialty, one psychiatry and two a career outside medicine. The main reasons for anticipated difficulty were that

their original career required hard work (34.8%), social reasons (39.1%) and corruption in obtaining promotion (26%). Fourteen of these people who anticipated difficulty would choose general practice as their alternative career path.

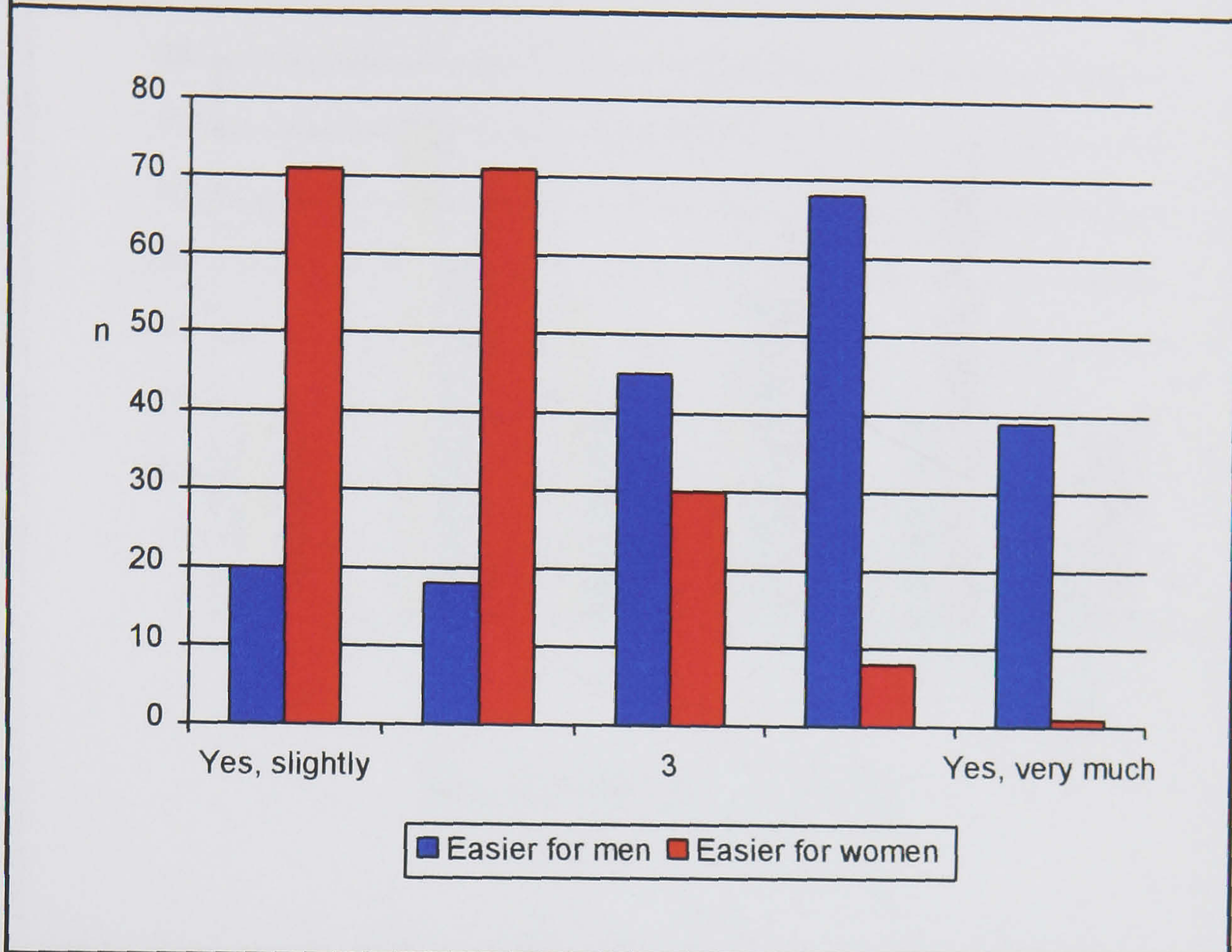
40.7% (79) stated that they were aware of opportunities for part-time training (36 male and 43 female). Significantly more females (94) than males (34) were prepared to work part-time (χ^2 , $p < 0.001$).

3.10 Medicine and the family

70.5% of respondents believed that a career in medicine was most suited to males, the remainder believing that it was equally suited to both males and females. Nobody considered it more suited to females.

Respondents believed that it was easier for males to combine a career with a family than for women. Responses were rated on a scale of 1 to 6, where 1 equalled “no”, 2 “yes slightly” and 6 “yes very much”. See Figure 29. An overwhelming proportion of respondents (97.4%) believed that the regular changing of jobs was a source of stress.

Figure 29 Ease with which men and women can combine medicine with family life

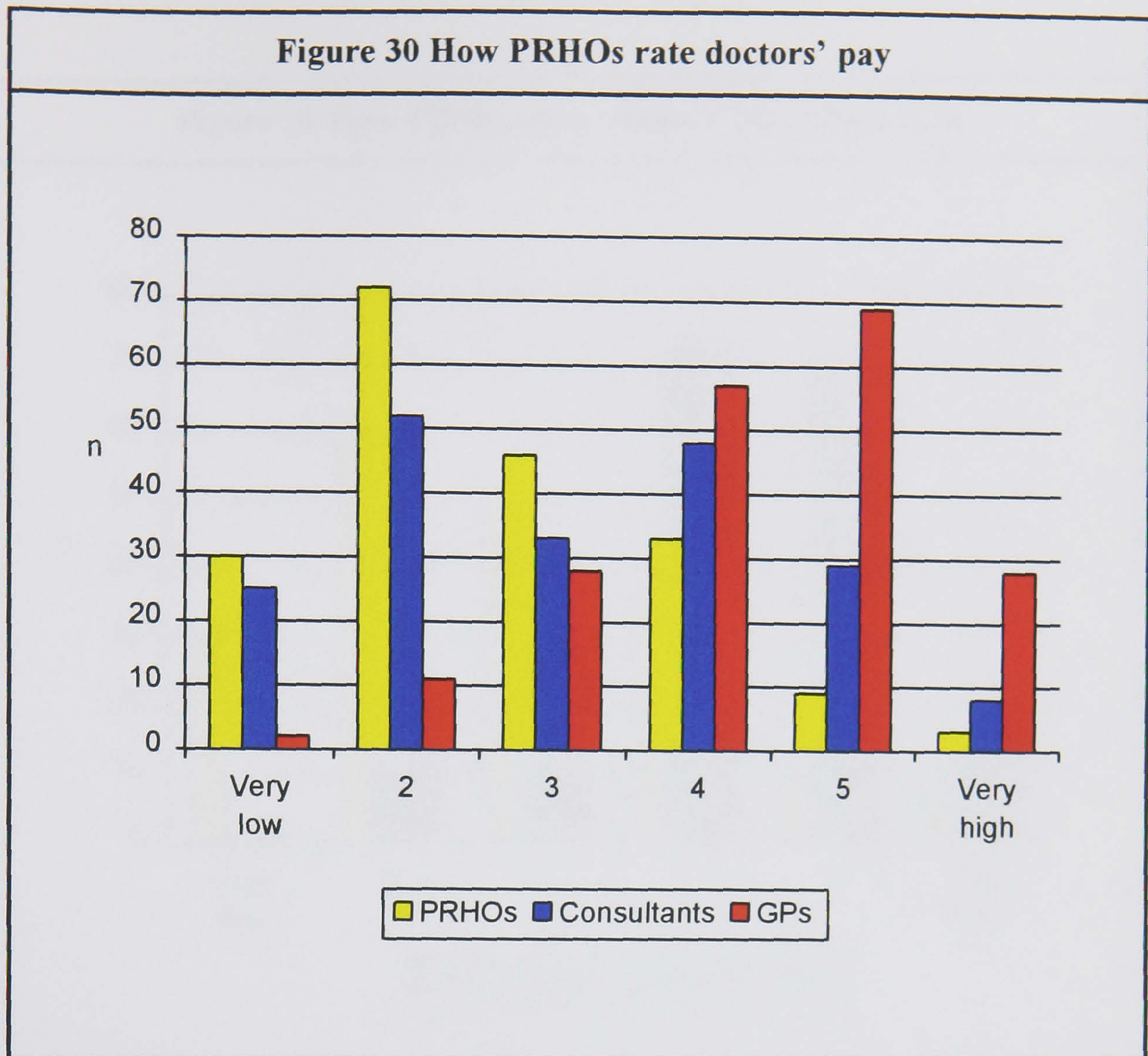


3.11 How you view medicine

Respondents were asked to rate the level of pay, job satisfaction, and job status for PRHOs, GP principals and consultants on a scale of 1 (very low) to 6 (very high). Figure 30 to Figure 32 illustrate respondent's views.

102 (52.8%) of PRHOs rated their pay as low (scoring 1-2), 79 (40.9%) moderate (scoring 3-4) and only 11 (6.3%) high (scoring 5 or 6). Seventy seven (39.5%) respondents felt that consultants pay was low compared with 13 (6.6%) who considered GP pay to be low. Only 37 (19%) respondents considered consultant pay to be high compared to 77 (49.8%) who thought GP pay was high. In short, PRHOs considered GPs well paid, consultants poorly paid and themselves reasonably/poorly paid (Figure 30).

Figure 30 How PRHOs rate doctors' pay



Both consultants and GPs are perceived to have much the same (moderate/high) job satisfaction. PRHOs on the other hand scored the reverse - only 26.7% scoring 4,5 or 6 ("moderate/high") for job satisfaction (Figure 31).

Both consultants and GPs are perceived to have higher job status than PRHOs, although consultants were thought to have marginally higher job status than GPs. Only 15.5% of PRHOs scored job status moderate to highly (4,5 or 6) for themselves (Figure 32).

Figure 31 How PRHOs rate doctors' job satisfaction

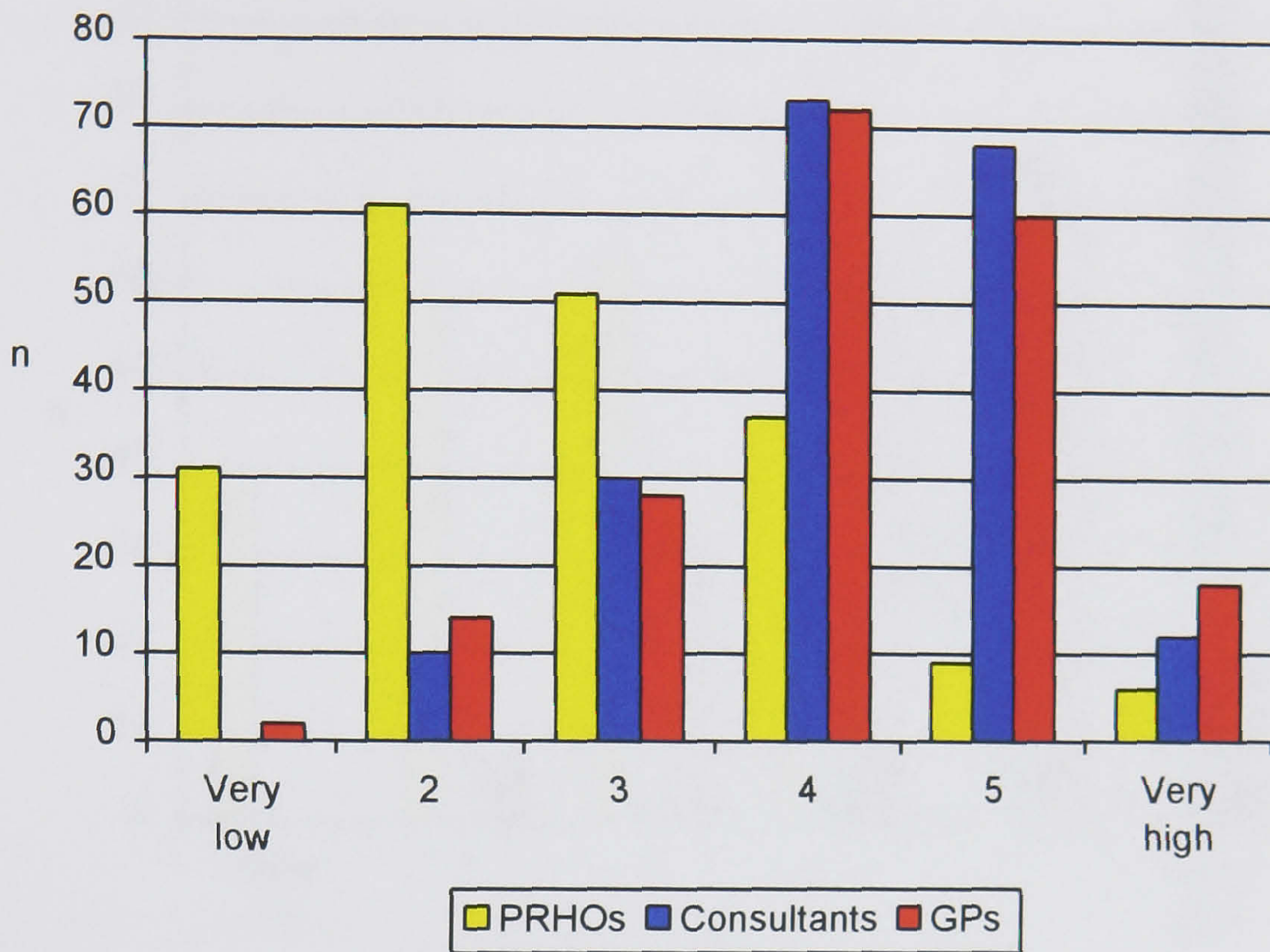


Figure 32 How PRHOs rate doctors' job status



3.12 Working as a PRHO

Respondents were asked to rate:

- their morale
- how easy they thought it would be to climb the career ladder in medicine
- how much work they had to do

on a scale of one to six, where one was equal to very low/difficult/far too little and six equalled very high/easy /far too much.

57 respondents (29.1%) reported their morale to be low (rated 1 or 2), 109 (55.6%) rated their morale as moderate (3 or 4) with only 30 (15.4%)

reporting it to be high. Males rated their morale significantly higher (χ^2 , $p < 0.01$) than females, 19.8% vs. 36.5% as low, 58.3% vs. 53.8% moderate and 21% vs. 9.6% high.

75 respondents (38.5%) thought climbing the career ladder in medicine would be difficult (rated 1 or 2). 109 respondents (55.9%) thought that it would be moderately difficult (rated 3 or 4), eleven (5.6%) thought that it would be easy (rated 5) but nobody thought that it would be very easy. Males and females gave similar ratings.

Only 1.5% of respondents reported that they had too little work to do. Most believed that the quantity of work required was acceptable (scored 3 or 4) but 42.1% thought that it was too much (scored 5 or 6).

Respondents were asked a number of questions perceived to be important to their job satisfaction, morale and physical and mental well-being. Each question was answered on a scale of one to six where one was equal to "no", 2 equal to "yes slightly" and six equal to "yes very much". The responses to each question are presented in Figure 33 and Figure 34.

The vast majority of respondents (93.8%) felt committed to some degree to a career in medicine, however 25.5% were not entirely happy with their profession.

88.8% of respondents reported good support from their consultant, with the majority (71.9%) also being able to report that they received some form of feedback from their boss. Good support was also received from nursing staff. However hospital managers fared less well, with only 35.9% reporting some level of support, and the majority of these reported only a little support. There were no sex differences on the issue of support - neither sex felt discriminated in the amount of support they received.

Two thirds of respondents felt isolated at work, with significantly more women feeling this than males (χ^2 , $p < 0.01$). 16.5% stated that they did not feel in control of their job, but there was no differences between the sexes.

Few respondents (7.7%) reported that they did not feel at all stressed, however despite this 87.2% reported that they found their job satisfying.

174/195 (88.8%) respondents felt that they were not underworked but 93.9% of respondents felt that their skills were under-utilised. There was no difference between the sexes.

Only two people reported that they did not experience a sense of camaraderie with other PRHOs working within the hospital.

Most felt that there was a scramble for jobs in order to advance a career in medicine. 48% believed this to be very much the case, with males and females holding similar opinions on this issue. Most (90.3%) believed that being a doctor gave them security of employment.

87.5% of respondents were concerned to some degree about the possibility of litigation. Significantly more women than men were concerned about this aspect of medical practice (χ^2 , $p < 0.025$).

The majority of respondents (186, 94.9%) reported that they felt part of a team in work. The majority of these felt that they were part of the doctors team (55.9%). However 59 (31.7%) felt part of the nurses team and only 19 (10.2%) people feeling that they were part of a multi-disciplinary team.

Figure 33 Morale related responses of PRHOs (1)

(n=195-196)	1 (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)	6 (n, %)
Are you committed to a career in medicine?	12 (6.2)	20 (10.3)	22 (11.3)	41 (20.9)	59 (30.1)	41 (20.9)
Are you entirely happy with your profession?	50 (25.5)	29 (14.8)	36 (18.4)	46 (23.5)	25 (12.8)	10 (5.1)
Do you feel you have good support from your boss?	22 (11.2)	23 (11.7)	32 (16.3)	44 (22.4)	47 (24.0)	28 (14.3)
Do you feel that you have good support from nursing staff?	24 (12.3)	42 (21.5)	31 (15.9)	42 (21.4)	39 (19.9)	17 (8.7)
Do you feel that you have good support from your hospital management?	125 (64.1)	48 (24.6)	13 (6.7)	5 (2.6)	4 (2.1)	0
Do you feel in control of your job?	32 (16.5)	20 (10.3)	27 (13.8)	51 (26.0)	52 (26.5)	12 (6.1)
Do you feel isolated (lonely on your own) at work?	64 (32.7)	56 (28.6)	20 (10.2)	24 (12.2)	22 (11.2)	10 (5.1)
Do you receive feedback from your boss?	55 (28.1)	42 (21.4)	27 (13.8)	38 (19.4)	30 (15.3)	4 (2.0)
1 = no, 2 = yes slightly, 6 = yes very much						

Figure 34 Morale related responses of PRHOs (2)

	1 (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)	6 (n, %)
(n=195-196)						
Do you feel stressed?	15 (7.7)	16 (8.2)	26 (13.3)	47 (24.0)	64 (32.7)	28 (14.3)
Do you find your job satisfying?	25 (12.8)	37 (18.9)	48 (24.5)	53 (27.0)	26 (13.3)	7 (3.6)
Do you feel underworked?	174 (88.8)	8 (4.1)	2 (1.0)	6 (3.1)	5 (2.6)	1 (0.5)
Do you feel that your skills are currently under-utilised?	12 (6.1)	40 (20.5)	29 (14.9)	32 (16.4)	47 (24.1)	35 (17.1)
Do you feel a sense of camaraderie with other PRHOs working within your hospital?	2 (1.0)	13 (6.6)	13 (6.6)	23 (11.7)	63 (32.1)	82 (41.8)
Do you feel that there is a scramble for jobs in order to advance a career in medicine?	1 (0.5)	6 (3.1)	6 (3.1)	34 (17.3)	55 (28.1)	94 (48.0)
Do you think that being a doctor give you security of employment?	19 (9.7)	18 (9.2)	16 (8.2)	26 (13.3)	73 (37.2)	44 (22.4)
Does the possibility of litigation concern you?	24 (12.2)	40 (20.4)	22 (11.2)	35 (17.9)	38 (19.4)	37 (18.9)

3.13 You and your hours of work

21.8% (base = 193) stated that they work for periods longer than 56 hours when on-call, including 5 people at 100 hours or more. The average maximum on-call duty worked was 56 hours. Approximately 10% stated that they were contracted to work in excess 83 hours. It is not possible to say whether these hours are in breach of the Junior Doctors Deal as this house started their current job in February 1993 i.e. prior to the New Deal's implementation.

Unsurprisingly, despite the push to move juniors onto shift and partial shift systems, 183 (93.3%) were still working an on-call rota system, with just 7 (3.6%) working a full shift system and 6 (3.1%) working a partial shift system.

3.13.1 Relationship between system of work, job satisfaction and ill-health

Group means for those PRHOs working on-call rotas, and shift systems were compared using a one way analysis of variance (ANOVA) for multiple comparison of means (Figure 35). Tukeys procedure was used to determine which means differed significantly from each other (reported to be significant at the 5% level of probability).

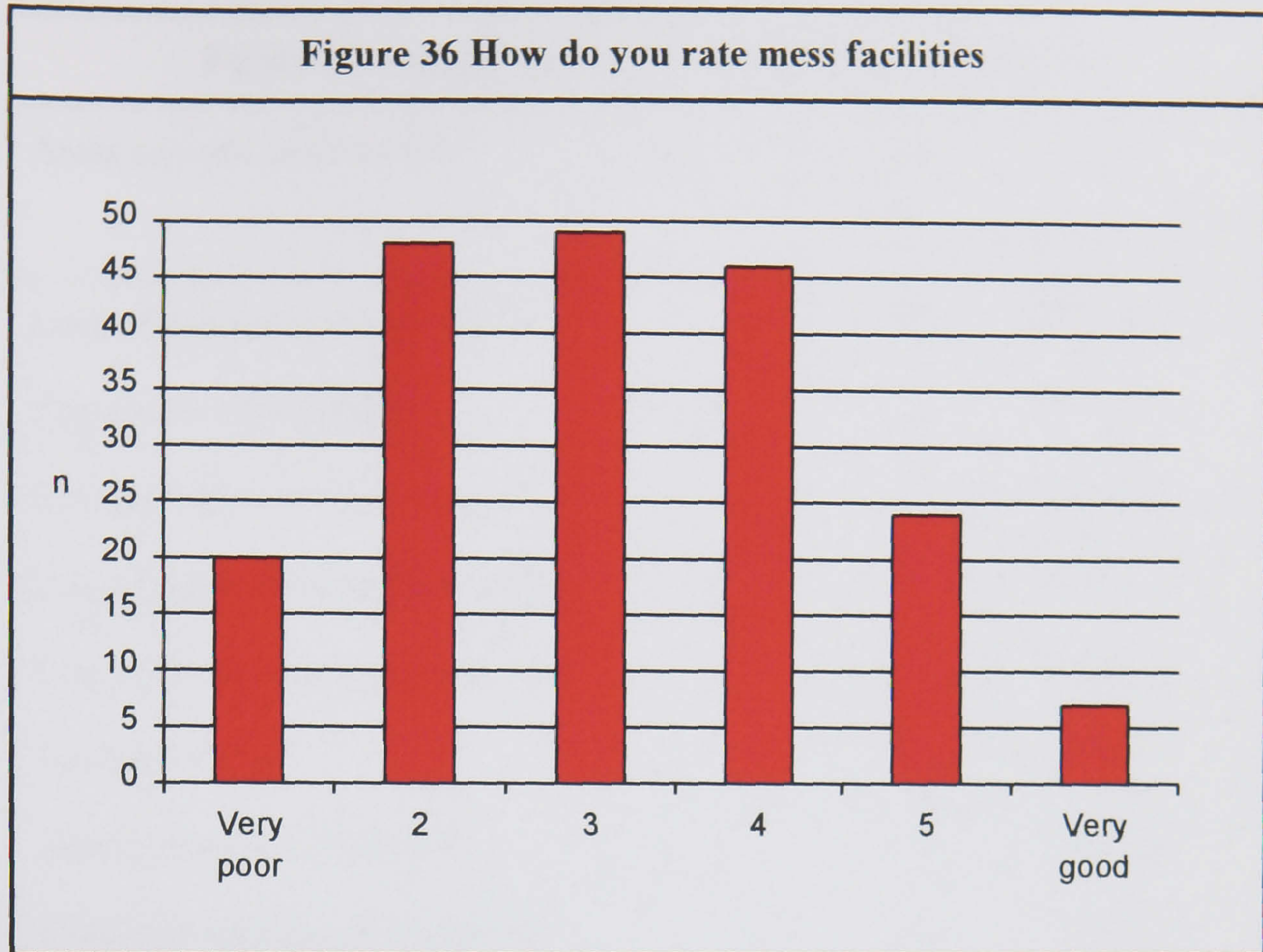
There was a significant main affect between job satisfaction and system of work. However no work pattern proved to be significantly better or worse than another, although those working on-call rota and full shift had higher scores than those working a partial shift. In terms of physical ill-health those PRHOs working a partial shift system had significantly worse physical ill-health than those working a full shift system. There were no significant differences in mental ill-health and the system of work for PRHOs.

Figure 35 Mean scores for job satisfaction and mental and physical ill-health of PRHOs according to their system of work						
OSI variable	On-call rota n = 178-9	Partial shift n = 4-6	Full-shift n = 7	F Ratio	p	Difference Tukey's procedure p<0.05
Job satisfaction	72.06	56.75	75.57	3.08 (df = 2,191)	p<0.05	ND
Mental ill-health	61.38	67.83	59.14	0.69 (df = 2,192)	NS	ND
Physical ill-health	33.73	43.67	29.00	3.16 (df = 2,190)	p<0.05	PS > FS
OCR = On-call rota		NS - not significant				
FS = Full-shift		ND = no difference				
PS = Partial shift						

3.14 Hospital accommodation and facilities

Only 39.7% of PRHOs reported that they had access to freshly prepared meals when working outside of normal hours, with 14.9% having access to pre-cooked/microwave meals. 56.2% also reported eating take aways. Eight individuals reported eating nothing out of hours.

Only 42.3% of respondents lived in permanent hospital accommodation, the remainder using on-call rooms when on duty. Respondents were asked to rate the hospital accommodation, on-call rooms and mess facilities on a scale of 1 (very poor) to 6 (very good). On the whole these facilities were rated moderately well, although there is clearly room for improvement in some hospitals. See Figure 36.



3.15 Improvements to undergraduate training

Sixty (30.8%) respondents felt that undergraduate training did not prepare them adequately for the role of PRHO, and a further 82 (41.8%) stated that it prepared them only slightly. The major bone of contention was inadequate training in practical/clinical procedures followed by too much responsibility and dealing with emergencies (Figure 37).

Figure 37 Appropriateness of undergraduate training	
Areas covered inadequately	N (%)
	Base = 196
Lack of practical /clinical skills	64 (32.7)
Too much responsibility	28 (14.3)
Dealing with crisis or emergencies	23 (11.7)
Inappropriate training/information	22 (11.2)
Consequence of work on ones self	20 (12.2)
Too theoretical	17 (8.7)
Administration duties/skills	10 (5.1)
Time management skills needed	9 (4.6)
Organisational skills	8 (4.1)
Day to day work of PRHO	7 (3.6)
Managing stress	5 (2.6)
Lack of communication skills taught	5 (2.6)
Other	4 (2.0)
# Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.	

36 (18.5%) stated that their undergraduate training had not prepared them for working within the NHS, with a further 104 (53.3%) stating that it had done so only slightly. Respondents were asked whether specific items should be included in undergraduate training (Figure 38).

40% of respondents also requested teaching on a variety of other topics at undergraduate level. These included information concerning the realities of being a PRHO, communication skills, careers advice including how to apply for jobs, and handling responsibility.

Figure 38 Items to be included in undergraduate training	
Base = 196	n (%)
Organisation of the NHS	141 (71.9)
Politics of the NHS	138 (70.4)
Time management	157 (80.1)
Pay deals	145 (74.4)
Dealing with managers	147 (75)
Stress management taught	167 (85.6)
# Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.	

95.9% of respondents stated that formal career counselling should be available, with the supervising consultant or clinical tutor most frequently cited as a suitable counsellor. 66.7% wanted a formal stress counselling service to be provided, with a clear majority (77.5%) wanting this provided by a trained external counsellor.

3.16 Lifestyle and coping behaviours

Respondents were asked whether they drank alcohol or smoked, and if they did, whether their consumption of these drugs had increased since beginning work. These habits are well-recognised as behavioural responses to stress.

3.16.1 Smoking

Only 13.4% (26/194) of PRHOs admitted to smoking. Significantly more males (21.1%) than females (6.7%) smoked. The average cigarette consumption amongst smokers was 8.6 cigarettes per day.

There was no relationship between those smoking and those with OSI scores comparable with patients with psycho-neurotic disorders for either physical or mental ill-health.

3.16.2 Alcohol

The alcohol consumption of respondents is shown in Figure 39.

Figure 39 Alcohol consumption of respondents	
Males	n (%)
None	10 (11.1)
1-21 units per week	48 (53.3)
>21 units per week	32 (35.5) #
Mean 17.5 units per week **	
Median 15.0 units per week	
Females	n (%)
None	11 (10.6)
1-14 units per week	70 (69.3)
>14 units per week	20 (19.8)
Mean 9.02 units per week	
Median 8 units per week	
** t-test, $p < 0.001$ # χ^2 , $p < 0.05$	

Males consumed significantly more alcohol (t-test, $p < 0.001$) than females and were also significantly more likely to drink in excess of the recommended amount (χ^2 , $p < 0.05$).¹⁰⁴

There was no relationship between alcohol consumption in excess of the recommended amounts and those with OSI scores comparable with patients with psycho-neurotic disorders for either physical or mental ill-health.

3.16.3 Exercise

53.6% (104/194) of respondents admitted to taking less than one hour of vigorous exercise outside of the work place per week. There was no difference between the sexes in the amount of exercise undertaken.

There was no relationship between those taking less than one hours exercise per week and those with OSI scores comparable with patients with psycho-neurotic disorders for either physical or mental ill-health.

3.16.4 Changes in Coping Behaviours

Approximately half of smokers reported an increase in tobacco consumption, and 76.4% (146/192) of respondents stated that the amount of exercise undertaken had fallen between graduation and the second pre-registration job. Changes in alcohol consumption were slightly more complex with more women than men reporting an increase in consumption (not significant). See Figure 40 for details.

Figure 40 Change in smoking, drinking and exercise habits between graduation and second house job

	Alcohol			Smoking			Exercise		
	Increased	Decreased	Stayed the same	Increased	Decreased	Stayed the same	Increased	Decreased	Stayed the same
Male	28/80	27/80	25/80	10/19	2/19	7/19	5/89	67/89	17/89
Female	39/93	21/93	33/93	3/6	1/6	1/6	18/103	79/103	6/103

3.17 Results of the Occupational Stress Indicator

3.17.1 Job satisfaction

There were no significant differences between the scores for job satisfaction for male and female PRHOs within the West Midlands (Figure 41).

Figure 41 Results of OSI			
	Total Mean (sd) (n=186-193)	Males Mean (sd) (n=88-91)	Females Mean (sd) (n=97-102)
Achievement value and growth	19.36 (4.18)	19.44 (4.25)	19.32 (4.14)
Job itself	13.90 (2.80)	14.07 (2.83)	13.77 (2.78)
Organisational structure and design	14.92 (3.24)	14.70 (3.54)	15.14 (2.976)
Organisational processes	12.89 (3.51)	12.98 (3.52)	12.82 (3.53)
Personal relationships	10.79 (2.37)	10.73 (2.15)	10.88 (2.53)
Total job satisfaction	71.86 (12.99)	71.79 (13.41)	72.07 (12.64)
Mental ill-health (Number of "cases")	61.50 (14.31) (25)	57.21 (14.60) (9)	65.14 (12.97)* (16)
Physical ill-health (Number of "cases")	33.87 (10.97) (33)	31.03 (10.51) (11)	36.09 (10.63)* (21)
* p<0.001 (t test)			

3.17.2 Mental and Physical Ill-health

Female PRHOs had significantly higher scores for both mental and physical ill-health than male PRHOs. These results are shown in Figure 41.

Individuals with clinically significant mental health problems, so called "cases", can be identified by comparing their scores with the scores of patients

with psycho-neurotic disorders. The critical scores for “caseness” were identified as being 76.97 or above for mental ill-health, and 45.39 or above for physical ill-health.¹⁰⁵ Twenty six PRHOs (13.7%) could be classified as “cases” for mental ill-health using these criteria, and 32 (16.7%) on the basis of their physical health scores. Fifteen individuals were classified as “cases” on both counts (6 males and 8 females, one unknown). More females than males met the criteria for “caseness”, but differences were not significant (Figure 41). There were no significant differences in job satisfaction and mental or physical ill-health between the Caucasians and non-Caucasians.

Job satisfaction was significantly negatively associated with mental ill-health ($r = -0.39$ $p < 0.001$) and physical ill-health ($r = -0.41$ $p < 0.001$).

3.17.3 Comparison with normative data

West Midlands PRHOs had significantly lower scores for all aspects of job satisfaction, and significantly higher scores for mental and physical ill-health when compared with a small sample ($n=40$) of junior doctors of all grades,⁹² and significantly higher scores for physical ill-health for non health care workers¹⁰⁰ (Figure 42).

3.18 Multivariate analysis

Stepwise multiple regression analysis was used to determine the relationship between the dependent variables (total job satisfaction, mental ill-health and physical ill-health) and various independent variables (See appendix 6 for a detailed list of independent variables). Interaction between the dependent variables was not considered. In order to isolate optimal predictors the cut off point was determined by the criteria that the overall F ratio of the equation was significant and that the partial regression coefficient for the individual

independent variable added to the equation was significant ($p < 0.05$) and explained at least 1% of the variance.

Figure 42 Comparison with normative data			
	Survey (n=186-193)	Junior Doctors ⁹² (n=40)	Non health care workers ¹⁰⁰ (n=6326)
Achievement value and growth (n=193)	19.36 (4.18)	22.78 (4.44) **	21.66 (5.74) **
Job itself (n=190)	13.90 (2.80)	15.84 (2.39) **	16.34 (3.25) **
Organisational structure and design (n=188)	14.92 (3.24)	17.27 (3.02) **	16.73 (4.17) **
Organisational processes (n=193)	12.89 (3.51)	15.49 (2.87) **	15.54 (3.78) **
Personal relationships (n=186)	10.79 (2.37)	11.84 (1.98) *	11.78 (2.51) **
Total job satisfaction (n=190)	71.86 (12.99)	83.22 (11.22) **	81.76 (16.64) **
Mental ill-health (n=192)	61.50 (14.31)	55.30 (12.25) *	56.54 (12.25) **
Physical ill-health (n=192)	33.87 (10.97)	28.35 (8.29) **	29.69 (9.79) **
* $p < 0.01$ ** $p < 0.001$ (t test)			

3.18.1 Job satisfaction

Seven variables were significant predictors of job satisfaction, accounting for 42% of the variance. The main predictor was the respondents' perceived status of medicine at house officer level, accounting for 18% of the variance, the higher the status the greater the job satisfaction. Other predictors of job satisfaction are shown in Figure 43. The quantity of work which respondents were required to

do accounted for 2% of the variance. This entered the equation in a negative direction, thus the greater the perceived amount of work required of respondents the lower their job satisfaction.

Figure 43 Predictors of job satisfaction						
Dependent variable	Step	Independent variable	Beta	T Value	P	Adjusted r ²
Job satisfaction (High score = high satisfaction)	1	Job status at HO level	0.27	4.35	<0.001	0.18
	2	Receive feedback from boss	0.17	2.74	<0.01	0.09
	3	Good support from management	0.20	3.18	<0.01	0.05
	4	Adequacy of undergraduate training role as PRHO	0.18	2.82	<0.01	0.03
	5	Feeling part of a team	0.23	3.63	<0.001	0.03
	6	Commitment to a career in medicine	0.18	2.94	<0.01	0.03
	7	Quantity of work	-0.15	-2.46	<0.02	0.02
Total variance	F=18.27, p<0.001, df 161					42%

3.18.2 Mental and physical ill-health

Eight variables were significant predictors of mental ill-health, accounting for 43% of the variance. This dependent variable was negatively polarised in that the greater the score the worse the mental ill-health of the respondent. Showing regret for a career in medicine was the main predictor of poor mental health accounting for 14% of the variance. Other predictors of poor mental ill-health are shown in Figure 44. It should be noted that control, commitment, adequacy of undergraduate training and mess facilities (steps 3,5,7,8) all entered the equation in a negative direction e.g. a lack of commitment resulted in poorer mental health.

Figure 44 Predictors of mental ill-health						
Dependent Variable	Step	Independent variable	Beta	T value	P	Adjusted r ²
Mental ill-health (high score = poor mental health)	1	Regret choosing medicine as a career	0.22	3.22	<0.01	0.14
	2	Feeling isolated at work	0.28	4.76	<0.001	0.10
	3	Feel in control of one's job	-0.25	-3.95	<0.001	0.06
	4	Gender (female)	-0.21	-3.37	<0.001	0.04
	5	Adequacy of undergraduate training for role as PRHO	-0.17	-2.79	<0.01	0.03
	6	Concern about litigation	0.24	3.69	<0.001	0.02
	7	Commitment to a career in medicine	-0.22	-3.39	<0.001	0.02
	8	Rating of mess facilities	-0.14	-2.35	<0.05	0.02
Total variance	F= 17.5, p <0.001, df = 165					43%

Seven variables were significant predictors of physical ill-health, accounting for 31% of the variance. The significant predictors of poor physical ill-health were similar to those for mental ill-health. Like mental ill-health, the main predictor was regret at choosing medicine as a career accounting for 11% of the variance. Other predictors of poor physical ill-health are shown in Figure 45. It should be noted that commitment (step 4) entered the equation in a negative direction e.g. a lack of commitment resulted in poorer physical health.

Figure 45 Predictors of physical ill-health						
Dependent variable	Step	Independent variable	Beta	T value	P	Adjusted r ²
Physical ill-health (high score = poor physical health)	1	Regret choosing medicine as a career	0.18	2.77	<0.01	0.11
	2	Adequacy of undergraduate training for role as PRHO	-0.24	-3.61	<0.001	0.06
	3	Feeling isolated	0.21	3.19	<0.01	0.04
	4	Commitment to a career in medicine	-0.28	-3.99	<0.001	0.05
	5	Gender (female)	-0.15	-2.28	<0.05	0.02
	6	Concern about litigation	0.15	2.15	<0.05	0.02
	7	Length of working hours too long	0.13	2.06	<0.05	0.01
Total variance	F =12.42, p<0.001, df = 168					31%

Section 4 Results of the follow up study of the original cohort of PRHOs approximately 18 months later including changes in morale arising from the transition from PRHO to SHO

4.1 Response rate

156 doctors responded to the questionnaire giving a crude response rate of 80.4% (156/194). However two returned questionnaires appeared to have been completed by different people to the original respondents (the sex of the respondent was different to that reported in the original survey), two people were working as GP trainees in general practice, and one doctor was undertaking research. Sixteen doctors were found to be working (or had worked) overseas, and one person had given up medical practice entirely. These people were excluded from the sample because their responses could bias the results. Thus the overall response rate for those eligible for follow up was 77.9% (134/172). Not all respondents answered every question (selective response) and therefore some of the results reported are based on fewer than 134 people.

4.2 Biographical details

Seventy two (53.7%) of the respondents were female and sixty two (46.3%) male. The mean age for the respondents was 25.9 years (sd. 1.55). Compared with 1993 results, the respondents were significantly older (25.90 years vs. 24.4 years, t -test $p < 0.001$), with significantly fewer being single (78/133 vs. 110/133, McNemar, $p < 0.001$), and a higher proportion having children (4.5% vs. 2.3%, not significant).

4.3 Regretting and leaving medicine

64.9% of respondents stated that they regretted choosing a career in medicine somewhat in 1994. This was slightly higher than reported by the respondents in 1993 (62.1%, McNemar test, not significant). The reasons for regret among those reporting regret in both 1993 and 1994 ($n=69$) are given in Figure 46. The main reasons were related to working conditions i.e. hours too long; too

stressful, constantly exhausted and interference with the rest of ones life. Significantly fewer people reported lack of time for patient care, the training being too long and lack of job satisfaction as reasons for regret in 1994 compared to 1993, but significantly more reported stress as a reason for regret.

Significantly more females than males (χ^2 , $p < 0.05$) reported regret in 1994 (75.0% vs. 53.2%). This is a change from 1993 when, for the same group of 134 individuals, similar proportions of males and females reported regret. Females were more likely to express regret because of interference with the rest of their lives or because of the responsibility.

There was a significant association between regret and those identified as “cases” for mental (χ^2 , $p < 0.01$) and physical (χ^2 $p < 0.01$) ill-health. Those that were cases were significantly more likely to express regret than non cases.

21.6% ($n=29$) of 1994 respondents stated that they would not study medicine if they had their time again (12 men and 17 women χ^2 NS). This compares with 23 (17.3%) in 1993 (McNemar test, NS). Most respondents gave more than one reason for not studying the subject again. Reasons included hours being too long, interference with the rest of one’s life, poor pay, too stressful and being constantly exhausted.

Respondents were asked to state if they would leave the profession at SHO level for a variety of scenarios. 24.6% stated they would leave because of poor pay; 68.7% because of poor working conditions; 61.2% because of the long hours required of a SHO; and 44% because of managerial constraints (Figure 47). Other reasons cited included others attitudes, lack of support, lack of enjoyment and effect on oneself and personal life. Females were significantly more likely (χ^2 , $p < 0.01$) to consider leaving because of the long hours of work than males.

Figure 46 Reasons for regretting entering medicine		
	1994 n=68	1993 n = 68
Not enough time for patient care	28 (41.2)	49 (71.0) ***
Too much responsibility	14 (20.6)	11 (16.2)
Pay is poor	30 (44.2)	29 (42.6)
Hierarchical structure	21 (30.9)	30 (44.1)
Training too long	16 (23.5)	30 (44.1)**
Too many exams	30 (44.2)	22 (32.4)
Not as interesting	13 (19.1)	11 (16.2)
Too stressful	41 (60.3)	31 (45.6) *
Hours too long	59 (86.8)	61 (89.7)
Constantly exhausted	50 (73.5)	52 (76.5)
No job satisfaction	7 (10.3)	22 (32.4) ***
Interference with rest of life	62 (91.2)	59 (86.8)
No status	13 (19.1)	12 (17.6)
Slow career progression	18 (26.5)	20 (29.4)
Other	12 (17.6)	15 (22.1)
* McNemar $p < 0.05$ ** McNemar $p < 0.01$ *** McNemar $p < 0.001$		
Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.		

Figure 47 Reasons to leave at SHO level			
	Total n=134 n (%)	Male n=62 n (%)	Female n=72 n (%)
Inadequate pay	33 (24.6)	16 (25.8)	17 (23.6)
Poor working conditions	92 (68.7)	39 (62.9)	53 (73.6)
Long hours	82 (61.2)	30 (48.4)	52 (72.2) **
Managerial constraints	59 (44.0)	28 (45.2)	31 (43.1)
Other	25 (18.7)	11 (17.7)	14 (19.4)

** χ^2 , $p < 0.01$ Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

85.8% (115) were intending to pursue a career in medicine beyond SHO level. This compares favourably with 84.2% reported in 1993. 8.2% (11/134) had taken steps towards leaving the profession in 1994 compared with 16 (11.9%) in 1993 (NS). 8/11 reported reading job adverts, 2/11 applying for jobs, 3/11 applying to study another subject, 4/11 requesting job descriptions and 2/11 receiving career counselling outside the NHS. Six (54.5%) respondents who had reported that they had taken steps to leave the profession in 1994 had also done so in 1993. The alternative careers mentioned were many and varied, but included pharmacy, management, aviation, journalism and business. Some gave more than one choice and some did not know what they wanted to do as an alternative to medicine indicating that they were unsure of their next career move.

4.4 A career in medicine

When asked which career path they would like to follow, 49.2% stated a hospital speciality, with medicine, surgery, anaesthetics and psychiatry the most preferred. 7.5% were undecided, 1 person wished to undertake missionary work, a handful planned a career in a different medical specialty, and one person stated a non medical career path. Fifty one respondents intended to become GPs. Significantly more females (χ^2 , $p < 0.05$) intended to pursue a career in general practice whereas significantly more males (χ^2 , χ^2 , $p < 0.05$) than females were planning a career in surgery. No other significant differences were observed. See Figure 48.

Reasons for choosing a particular career path were varied, although the main reasons were experience, social considerations and interest (see Figure 49). Reasons differed according to subject and sex. Females were more likely (NS) than males to choose their career for reasons based on social considerations and enjoyment whereas males were more likely (NS) to base their choices on interest, advice and elimination of other subjects.

Six people (2 males and 4 females, not significant) reported that realistically they would be unable to follow their first choice career. This is fewer than reported by respondents in 1993 (NS). Five of these people had planned a hospital based specialty. The main reasons for anticipated difficulty were that their original career required hard work (3), and it being too competitive (2). Three of these people who anticipated difficulty choose general practice as their alternative career path, 2 a non-medical career and one choose psychiatry.

Figure 48 Career Intentions at SHO level			
	1994		
Career Intention	Total n=134 (%)	Males (%) n=62	Females (%) n=72
Hospital- no speciality	17 (12.7)	10 (16.1)	7 (9.7) *
General Practice	51 (38.1)	16 (25.8)	35 (48.6) *
Hospital -surgery	12 (9.0)	10 (16.1)	2 (2.8) *
Hospital -medicine	11 (8.2)	7 (11.3)	4 (5.6)
Psychiatry	8 (6.0)	2 (3.2)	6 (8.3)
Paediatrics	4 (2.9)	1 (1.6)	3 (4.2)
Obstetrics and Gynaecology	1 (0.7)	0	1 (1.4)
Rehabilitation	1 (0.7)	1 (1.6)	0
Anaesthetics	10 (7.5)	5 (8.1)	5 (6.9)
Radiology	3 (2.2)	3 (4.8)	0
General practice and psychiatry	1 (0.7)	0	1 (1.4)
Public Health	2 (1.5)	0	2 (2.8)
Non-medical Direction	1 (0.7)	0	1 (1.4)
Missionary work	1 (0.7)	0	1 (1.4)
Public Health or general practice	1 (0.7)	1 (1.6)	0
Don't know	10 (7.5)	6 (9.7)	4 (5.6)
χ^2 * p<0.05			

Figure 49 Reason for selecting a particular career path				
Reason for choosing a career path	1994			1993
	Males (%) n=60	Females (%) n=67	Total (%) n=127	Total (%) n = 128
Interest in specialty	14 (23.3)	9 (13.4)	23 (18.1)	24 (18.8)
Social considerations	7 (11.72)	18 (26.9)	25 (19.7)	24 (18.8)
Experience of specialty	12 (20.0)	11 (16.4)	23 (18.1)	42 (32.8)
Enjoyment of specialty	6 (10.0)	12 (17.9)	18 (14.2)	40 (31.3)
Strength/best suited subject	3 (5.0)	2 (3.0)	5 (3.9)	7 (5.5)
Career considerations	4 (6.7)	5 (7.5)	21 (16.5)	15 (11.7)
Advice	7 (11.7)	5 (7.5)	12 (9.4)	16 (12.5)
Elimination of other subjects	7 (11.7)	3 (4.5)	10 (7.8)	12 (9.4)
Personal Involvement	0	2 (3.0)	2 (1.6)	4 (3.1)
Always wanted to specialise in this area	7 (11.7)	7 (10.4)	14 (11.0)	7 (5.5)
Challenge	0	1 (1.5)	1 (0.8)	4 (3.1)
Work in primary care	0	2 (3.0)	2 (1.6)	4 (3.1)
Dislike hospital medicine	4 (6.7)	8 (11.9)	12 (9.4)	9 (7.0)
Personal reasons	1 (1.7)	4 (6.0)	5 (3.9)	8 (6.3)
Like hospital medicine	0	2 (3.0)	2 (1.60)	0
Other	4 (6.7)	4 (6.0)	8 (6.3)	4(3.1)

Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

Significantly fewer respondents planned a career in a hospital clinical speciality in 1994 compared with 1993. There were no other significant changes although more respondents planned a career in general practice, hospital service specialities such as anaesthetics and radiology, and other medical specialities in 1994 compared to 1993. In addition fewer respondents were undecided on their planned career path.

Figure 50 Career choices in 1993 and 1994		
	1994 n= 132 (%)	1993 n = 132
General practice	50 (37.9)	42 (31.8)
Hospital clinical specialty	52 (39.4)	64 (48.5) *
Hospital "service" specialty e.g. radiology, anaesthetics, pathology	13 (9.8)	9 (6.8)
Other, non mainstream e.g. public health, missionary work	6 (4.5)	1 (0.8)
Non medical	1 (0.8)	1 (0.8)
Don't know	10 (7.6)	15 (11.4)
* McNemar $p < 0.05$		

43.3% (58) stated that they were aware of opportunities for part-time training (26 male and 32 female). This was slightly higher (NS) than reported by respondents in 1993 (40.9%, n = 54). Ninety six (71.6%) respondents were prepared to work part time in 1994. This compares with 92 (69.2%) in 1993. As in 1993 significantly more females than males (93.1% vs. 46.8%, χ^2 , $p < 0.001$) were prepared to work part-time.

Only 34.3% had received career guidance in their first SHO post.

4.5 Medicine and the family

78.2% of respondents believed that a career in medicine was most suited to males, the remainder believing that it was equally suited to both males and females. Nobody considered it more suited to females. The proportion of respondents believing that a career in medicine was best suited to a males was higher in 1994 than in 1993 (71.0%) but differences were not significant.

- Respondents believed that it was more possible for males to combine a career with a family than for women. Responses were rated on a scale of 1 to 6, where 1 equalled “no”, 2 “yes slightly” and 6 “yes very much”. Only 3.7% (n=5) believed that it was not possible for men to combine a family with a career compared with 11.2% (n=15) who thought it impossible for women. The proportions believing that women and men could/could not combine a family with a career in medicine were similar in 1993 and 1994.

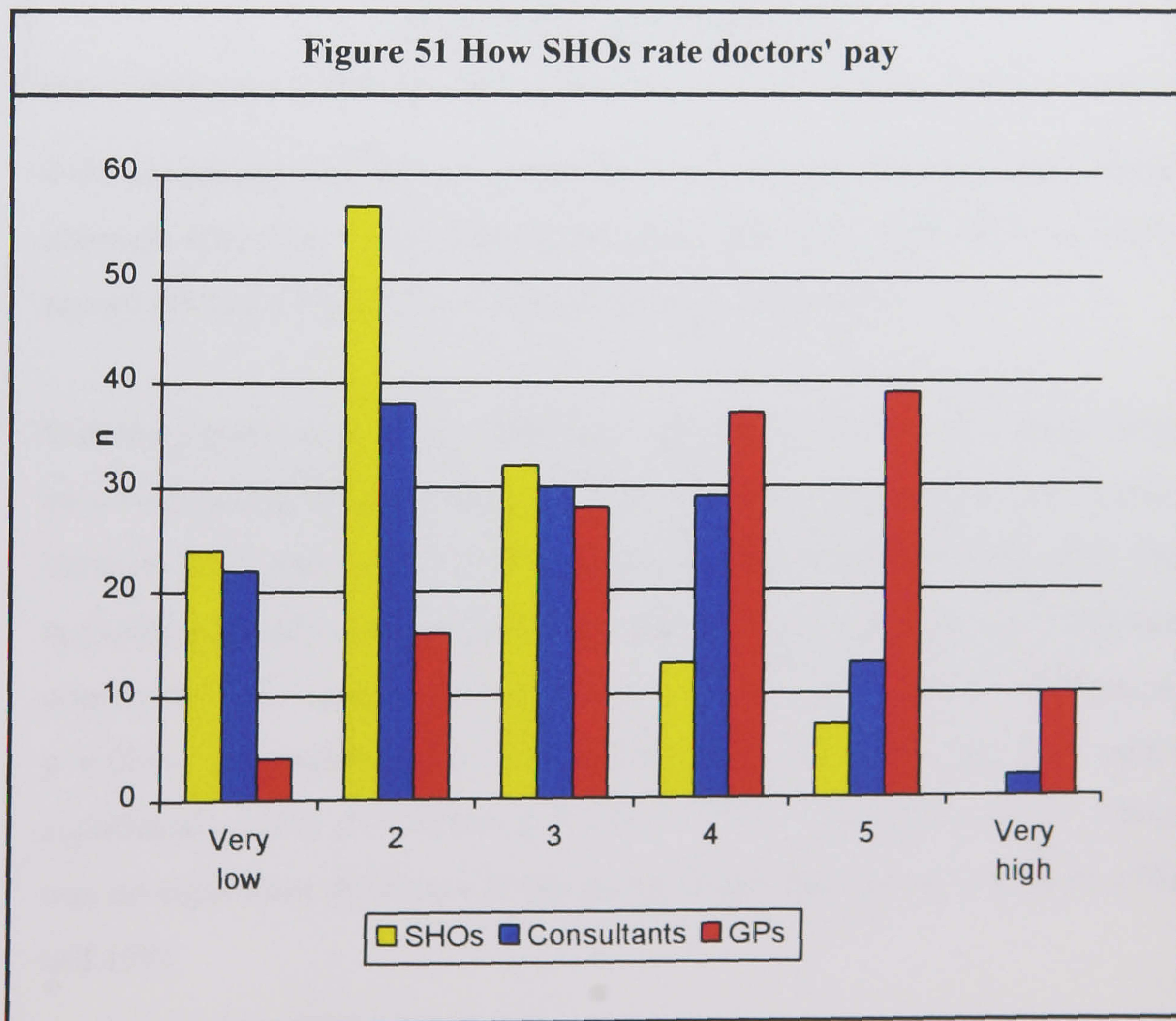
Respondents were consistent in their belief that the regular changing of jobs in order to progress up the career ladder was a source of stress (97.8% agreed in 1994 and 97.7% in 1993).

An overwhelming proportion of respondents (95.5%) believed that men progress in their medical career faster than women. This is consistent with their views in 1993 (94.7%).

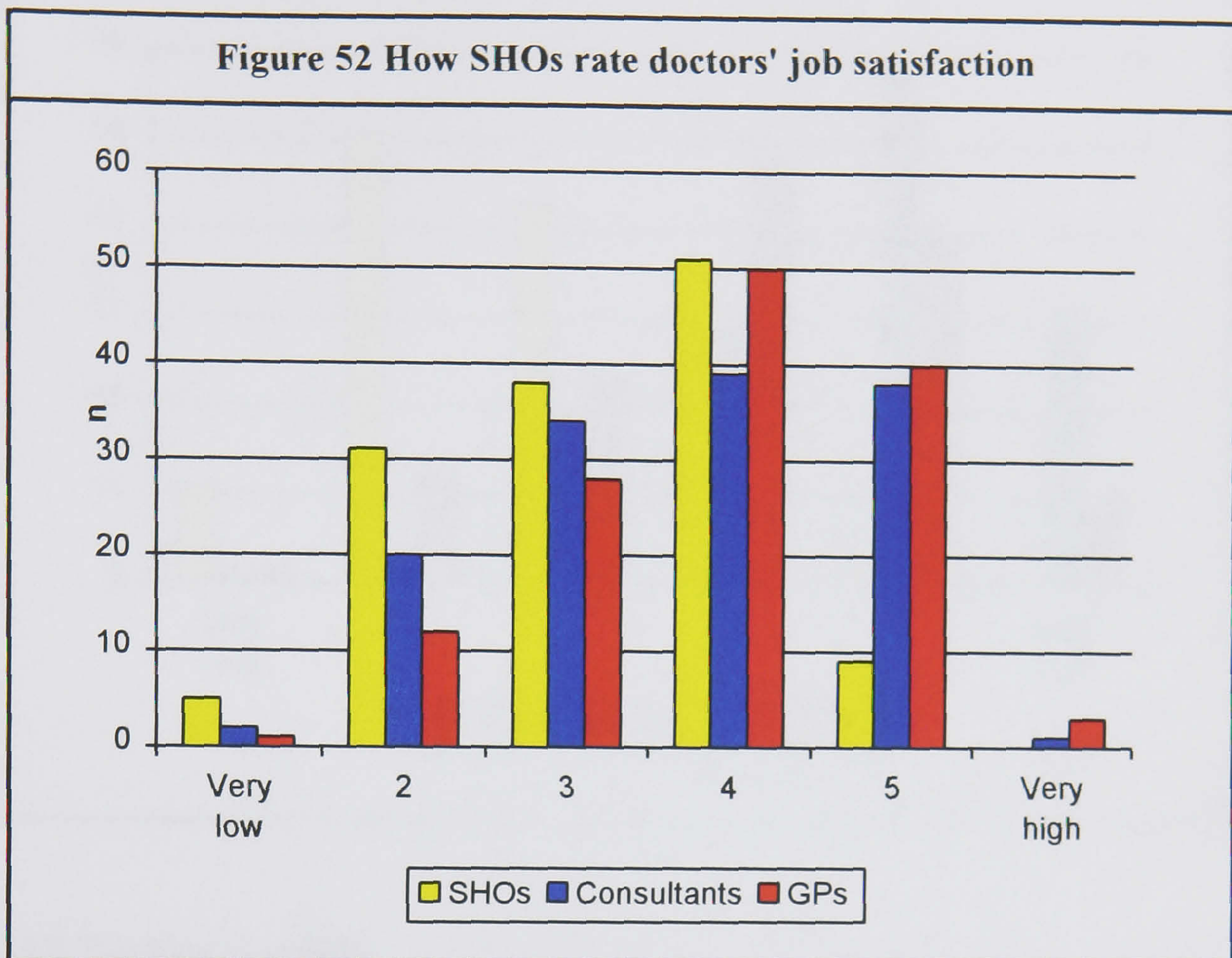
4.6 How you view medicine

Respondents were asked to rate the level of pay, job satisfaction, and job status for SHOs, GP principals and consultants on a scale of 1 (very low) to 6 (very high). Figure 51 to Figure 53 illustrate respondent's views.

81 (60.9%) of SHOs rated their pay as low (scoring 1-2), 45 (33.8%) moderate (scoring 3-4) and only 7 (5.3%) high (scoring 5 or 6). Sixty (44.8%) respondents felt that consultants pay was low compared with 20 (14.9%) who considered GP pay to be low. Fifty nine (44%) and 65 (48.5%) of respondents believed consultant and GP pay to be moderate. Only 15 (11.2%) respondents considered consultant pay to be high compared to 49 (36.6%) who thought GP pay was high (χ^2 , $p < 0.001$). In short, SHOs considered GPs well paid, consultants moderately paid and themselves poorly paid (Figure 51).

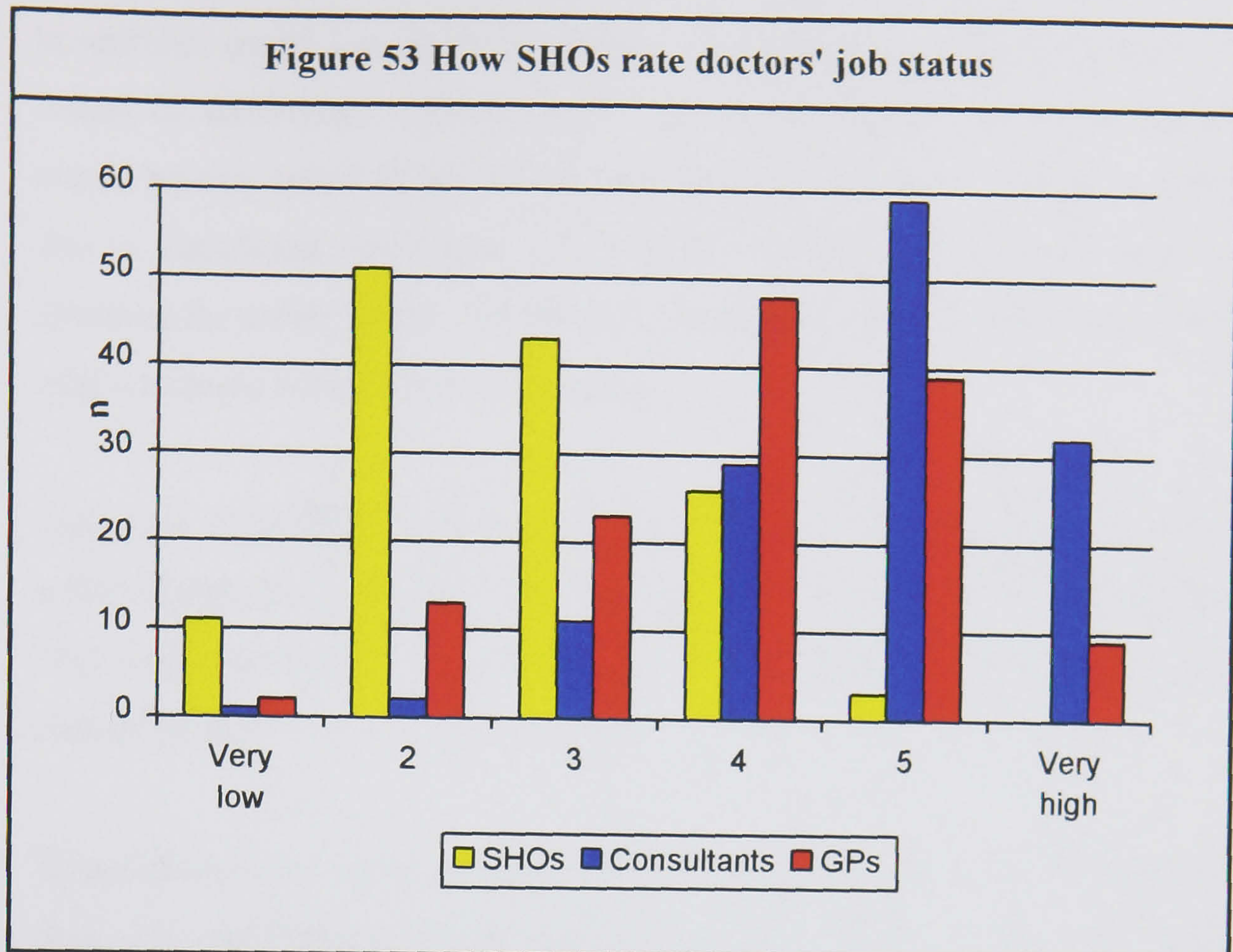


Both consultants and GPs are perceived to have moderate/high job satisfaction (GPs slightly higher than consultants). SHOs scored lower (Figure 52).



Both consultants and GPs are perceived to have higher job status than SHOs, although consultants have higher job status than GPs. Only 2.2% of SHOs scored job status highly (5 or 6) for themselves (Figure 53).

Wilcoxon matched pairs sign rank test was used to compare the respondents perceived ratings of consultants and GPs pay, job status and job satisfaction between 1993 and 1994 (as PRHOs and SHOs). Compared with 1993 the respondents rated consultants pay significantly lower (Wilcoxon, $p < 0.05$) and consultants job status and satisfaction significantly lower (Wilcoxon, $p < 0.001$). In addition the respondents rated GPs pay and job status significantly lower (Wilcoxon, $p < 0.001$) in 1994 compared to 1993. There was no significant difference in the rating of job satisfaction in GPs in 1993 and 1994.



4.7 Working as a SHO

Respondents were asked to rate:

- their morale
- how easy they thought it would be to climb the career ladder in medicine
- how much work they had to do

on a scale of one to six, where one was equal to very low/difficult/far too little and six equalled very high/easy/far too much.

28 respondents (21.1%) reported their morale to be low (rated 1 or 2), 85 (63.9%) rated their morale as moderate (3 or 4) with only 20 (15%) reporting it to be high. (Males rated their morale higher (NS) than females, 12.9% vs. 28.2% as low, 67.7% vs. 60.6% moderate and 19.4% vs. 11.3% high).

49 respondents (36.8%) thought climbing the career ladder in medicine would be difficult (rated 1 or 2). Seventy three respondents (54.9%) thought that it would be moderately difficult (rated 3 or 4), eleven (8.2%) thought that it would be easy (rated 5) but nobody thought that it would be very easy. There was a significant association (χ^2 , $p < 0.01$) between sex and the ease of climbing the career ladder - 14.5% of males thought that it would be easy/very easy compared with 2.8% of the women.

Only one respondent reported that they had too little work to do. Most believed that the quantity of work required was acceptable, 66.7% (3 or 4) but 32.6% thought that it was too much (scored 5 or 6). Males and females gave similar ratings

Respondents were asked a number of questions perceived to be important to their job satisfaction, morale and physical and mental well-being. Each question was answered on a scale of one to six where one was equal to "no", 2 equal to "yes slightly" and six equal to "yes very much". The responses to each question are presented in Figure 54 and Figure 55.

The vast majority of respondents (94%) felt committed to some degree to a career in medicine, however 28.4% were not entirely happy with their profession.

82.7% of respondents reported good support from their consultant, with the majority (67.9%) also being able to report that they received some form of feedback from their boss. Good support was also received from nursing staff (92.5% had some level of support). However hospital managers fared less well, with only 22% reporting some level of support, and the majority of these reported only a little support. (There were no sex differences on the issue of support - neither sex felt discriminated in the amount of support they received).

65.7% of respondents felt isolated at work, (with more women feeling this than males (73.6% vs. 56.5%, χ^2 , NS)). 14.2% stated that they did not feel in control of their job, but there was no differences between the sexes.

Few respondents (5.3%) reported that they did not feel at all stressed, however despite this 96.3% reported that they found their job satisfying.

110/134 (82.1%) respondents felt that they were not underworked but 70.9% of respondents felt that their skills were under-utilised. Significantly fewer women than men felt underworked (29% vs. 8.3%, χ^2 , $p < 0.01$).

Most (96.3%) felt that there was a scramble for jobs in order to advance a career in medicine, with males and females holding similar opinions on this issue. Most (92.5%) believed that being a doctor gave them security of employment.

92.5% of respondents were concerned to some degree about the possibility of litigation. Significantly more women than men were concerned about this aspect of medical practice (χ^2 $p < 0.01$).

The majority of respondents (126, 94.7%) reported that they felt part of a team in work. The majority (49.5%) of these felt that they were part of a multi-disciplinary team.

Significantly more respondents found their job satisfying in 1994 compared with 1993 (97% vs. 88%, McNemar $p < 0.01$). Significantly fewer respondents believed that their skills were under-utilised in 1994 compared with 1993 (70.7% vs. 93.2% McNemar $p < 0.001$).

There was no significant difference in the respondents rating for morale, quantity of work they had to do, or their perception of the ease in climbing the career ladder in medicine between 1993 and 1994.

Figure 54 Morale related responses of SHOs (1)

(n = 132 - 134)	Morale related responses of SHOs (1)					
	No (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)	6 (n, %)
Are you committed to a career in medicine?	8 (5.9)	11 (8.2)	22 (16.4)	28 (20.9)	36 (26.9)	29 (21.6)
Are you entirely happy with your profession?	38 (28.4)	10 (7.5)	33 (24.6)	31 (23.1)	19 (14.2)	3 (2.2)
Do you feel you have good support from your boss?	23 (17.3)	18 (13.5)	26 (19.5)	22 (16.5)	30 (22.5)	14 (10.5)
Do you feel that you have good support from nursing staff?	10 (7.5)	19 (14.1)	29 (21.5)	19 (14.1)	42 (31.1)	15 (11.2)
Do you feel that you have good support from your hospital management?	103 (78.0)	18 (13.5)	6 (4.5)	5 (3.8)	0	0
Do you feel in control of your job?	19 (14.2)	16 (11.9)	27 (20.1)	34 (25.4)	30 (22.3)	8 (6.0)
Do you feel isolated (lonely on your own) at work?	46 (34.3)	39 (29.1)	11 (8.2)	15 (11.2)	16 (11.9)	7 (5.2)
Do you receive feedback from your boss?	43 (32.5)	35 (26.1)	18 (13.4)	17 (12.7)	16 (11.9)	5 (3.7)

1 = no, 2 = yes slightly, 6 = yes very much

Figure 55 Morale related responses of SHOs (2)

(n = 133 - 135)	No (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)	6 (n, %)
Do you feel stressed?	7 (5.2)	22 (16.5)	17 (12.8)	26 (19.5)	40 (30.1)	21 (15.8)
Do you find your job satisfying?	4 (3.0)	21 (15.7)	33 (24.6)	38 (28.5)	30 (22.4)	8 (6.0)
Do you feel underworked?	110 (82.1)	12 (9.0)	7 (5.2)	3 (2.2)	1 (0.7)	1 (0.7)
Do you feel that your skills are currently under-utilised?	39 (29.1)	27 (20.1)	20 (14.9)	20 (14.9)	18 (13.4)	10 (7.5)
Do you feel a sense of camaraderie with other SHOs working in your hospital	12 (9.0)	17 (12.7)	12 (9.6)	22 (16.4)	28 (20.9)	43 (32.1)
Do you feel that there is a scramble for jobs in order to advance a career in medicine?	5 (3.7)	10 (7.5)	8 (6.0)	31 (23.1)	39 (29.1)	41 (30.6)
Do you think that being a doctor give you security of employment?	10 (7.5)	8 (6.0)	14 (10.5)	21 (15.7)	45 (33.6)	36 (26.9)
Does the possibility of litigation concern you?	10 (7.5)	21 (15.7)	9 (6.7)	27 (20.1)	32 (23.9)	35 (26.1)
1 = no, 2 = yes slightly, 6 = yes very much						

4.8 You and your hours of work

6.8% (9/133) stated that they work for periods longer than 56 hours when on-call. This is in breach of the New Deal. The average maximum on-call duty worked was 41.3 hours. This was significantly lower (t test, $p < 0.001$) than the average reported in 1993 (56.7 hours). Unsurprisingly, despite the push to move juniors onto shift systems, 96 (72.7%) were still working an on-call rota system, with just 24 (18.2%) working a full shift system and 12 (9.1%) working a partial shift system.

4.8.1 Relationship between system of work, job satisfaction and ill-health

Group means for those SHOs working on-call rotas, and shift systems were compared using a one way analysis of variance (ANOVA) for multiple comparison of means. Tukey's procedure was used to determine which means differed significantly from each other (reported to be significant at the 5% level of probability). Figure 56.

As for the respondents in 1993 there were no significant differences between job satisfaction and mental and physical ill-health and the system of work.

Figure 56 Mean scores for job satisfaction and mental and physical ill-health of SHOs according to their system of work						
OSI variable	On-call rota n=90-94	Partial shift n=12	Full-shift n=23-24	F Ratio	p	Difference Tukey's procedure p<0.05
Job satisfaction	73.71	77.83	77.83	0.88 (df=2,128)	NS	ND
Mental ill-health	61.72	59.50	58.44	0.44 (df=2,129)	NS	ND
Physical ill-health	33.45	33.17	31.58	0.28 (df=2,130)	NS	ND
OCR = On-call rota		NS - not significant				
FS = Full-shift		ND = no difference				
PS = Partial shift						

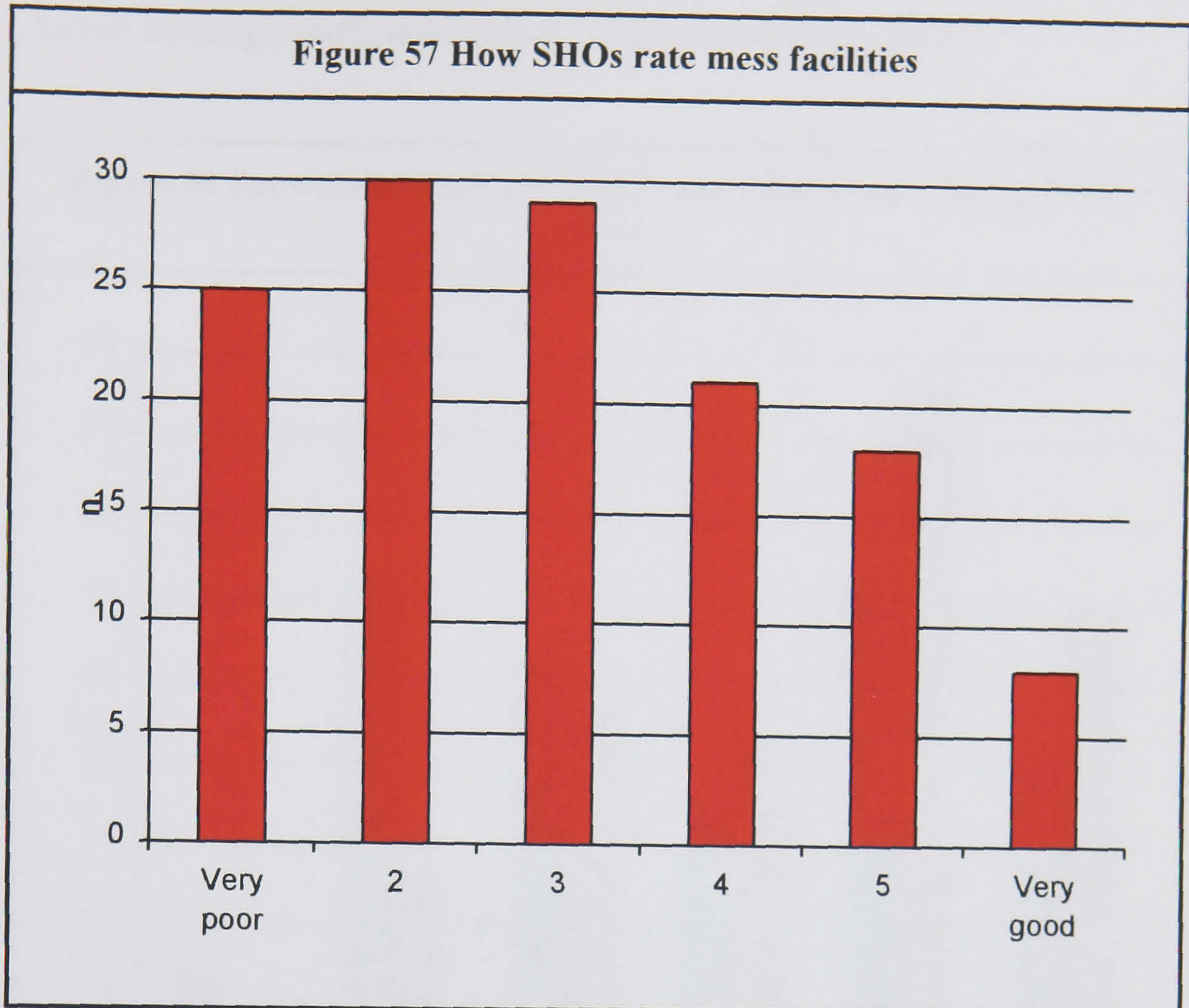
4.9 Hospital accommodation and facilities

Only 39.1% of SHOs reported that they had access to freshly prepared meals when working outside of normal hours. The types of food eaten when on-call is shown in Figure 57. Significant changes in consumption of type of food occurred between the group as PRHOs in 1993 and as SHOs in 1994, with significantly fewer consuming freshly prepared food and significantly more consuming take away or snack food.

Figure 57 Types of food eaten by SHOs when on-call		
	1994	1993
	n (%)	n (%)
	Base = 132	Base = 132
Freshly prepared meals	41 (31.1)	54 (41.0) *
Pre-cooked chilled/microwave meals	27 (20.5)	22 (16.8)
Sandwiches/pastries etc.	77 (58.3)	60 (45.8) *
Take away meals	53 (40.2)	74 (56.5) **
Snacks e.g. crisps, chocolate	69 (52.3)	89 (67.9) **
Other	8 (6.1)	12 (9.2)

χ^2 * $p < 0.05$ ** $p < 0.01$ Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

Only 27.8% (37/133) of respondents lived in permanent hospital accommodation, the remainder using on-call rooms when on duty. Respondents were asked to rate the hospital accommodation, on-call rooms and mess facilities on a scale of 1 (very poor) to 6 (very good). On the whole hospital accommodation was rated moderately well/good although there is clearly room for improvement in some hospitals. Mess facilities were rated poor to moderate by the majority. See Figure 58.



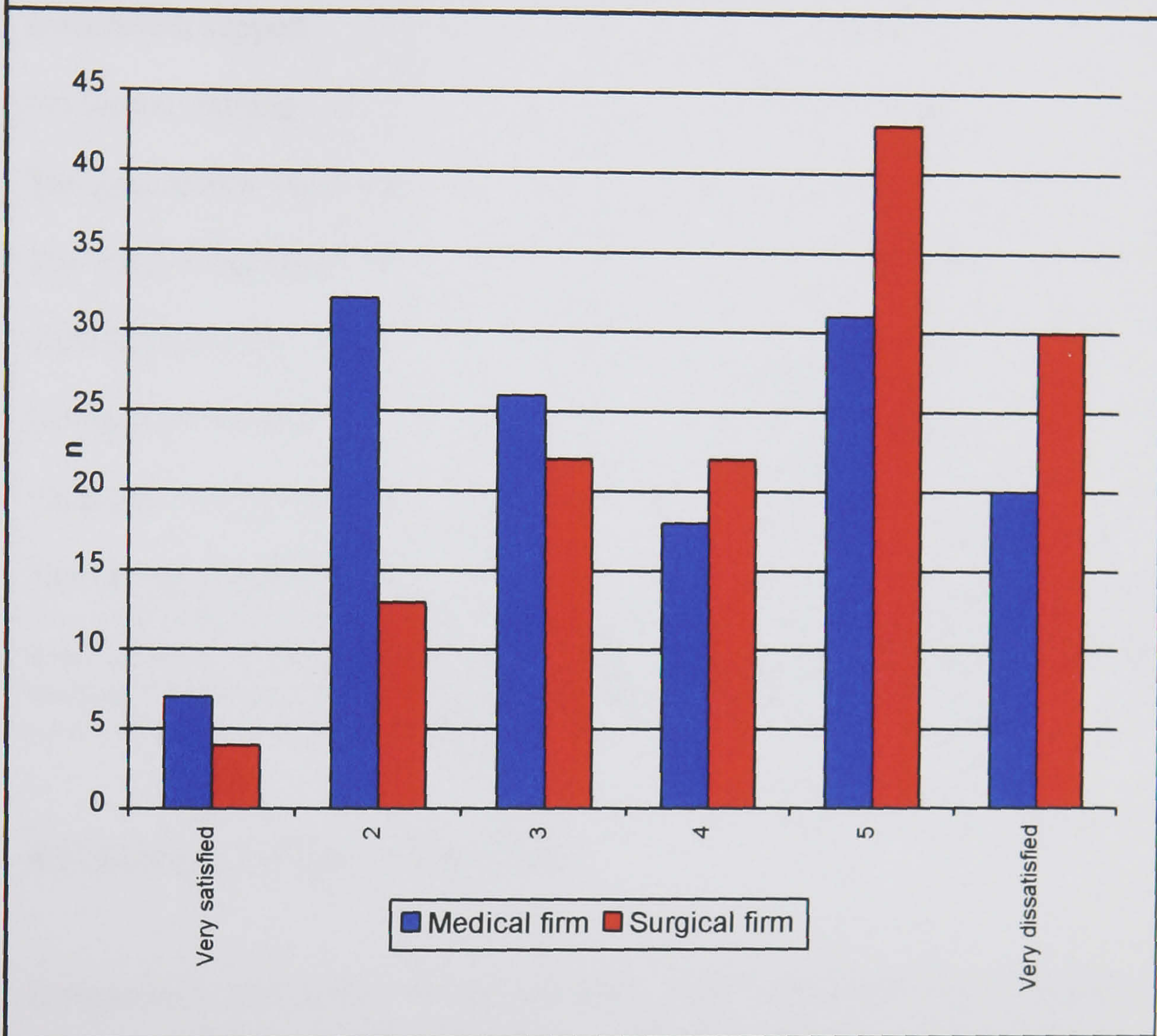
4.10 Pre-registration medical/surgical training in practical procedures

Respondents were asked to rate on a scale of 1 (very satisfied) to 6 (very dissatisfied) their satisfaction with the training in practical procedures they had received as PRHOs. On the whole respondents were not overly satisfied with their training in practical training at PRHO level, although they were more satisfied with the practical training in medicine than in surgery. (See Figure 59)

Reasons for dissatisfaction are given in Figure 60. 92.5% of respondents stated that formal career counselling should be available, with the clinical tutor and trained external counsellor most frequently cited as a suitable counsellor. 60.4% wanted a formal stress counselling service to be provided, with a clear majority (82.5%) wanting this provided by a trained external

counsellor. Main reasons for dissatisfaction were lack of opportunity, lack of formal training, insufficient support and lack of time (too busy).

Figure 58 Satisfaction with training in practical procedures at PRHO level



92.5% of respondents stated that formal career counselling should be available, with the clinical tutor and trained external counsellor most frequently cited as a suitable counsellor. 60.4% wanted a formal stress counselling service to be provided, with a clear majority (82.5%) wanting this provided by a trained external counsellor.

Figure 60 Reasons for dissatisfaction with training in practical procedures	
	n (%) Base = 94
No opportunity	44 (46.8)
Insufficient support	18 (19.1)
No formal training	26 (27.7)
See one, do one, teach one	4 (4.3)
Too busy doing other jobs	26 (27.7)
Training by junior staff	6 (6.4)
No time for teaching	13 (13.8)
No pressure to learn	2 (2.1)
Not enough experience	8 (8.5)

Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

4.11 Lifestyle and coping behaviours

Respondents were asked whether they drank alcohol or smoked, and if they did, whether their consumption of these drugs had increased since beginning work. These habits are well-recognised as behavioural responses to stress.

4.11.1 Smoking

Only 7.5% (10/134) of SHOs admitted to smoking. (8.1% males and 6.9% of females, NS). This compares with 10.4% of the respondents who smoked in 1993 (NS). The average cigarette consumption amongst smokers was 10.4 cigarettes per day.

There was no relationship between those smoking and those with OSI mental and physical ill-health scores comparable with those of patients with psychoneurotic disorders.

4.11.2 Alcohol

119 respondents admitted to drinking alcohol. There was no significant difference in the proportions of males and females consuming alcohol (88.7% males vs. 89% females). The alcohol consumption of respondents is shown in Figure 61.

Figure 61 Alcohol consumption of respondents		
	1994	1993
Males	n = 62 (%)	n = 62
None	7 (11.3)	7 (11.3)
1-21 units per week	37 (59.7)	33 (53.2)
>21 units per week	18 (29.0%)#	22 (35.5) #
Mean	15.3 (sd 13.92)units per week **	16.9 (sd 15.2) units per week **
Median	10 units per week	14 units per week
Females	n = 72 (%)	n = 72
None	8 (11.1)	7 (9.7)
1-14 units per week	49 (68.1)	51 (70.8)
>14 units per week	15 (20.8)	11 (15.3)
Mean	9.17 (sd 7.85) units per week	9.33 (sd 6.92) units per week
Median	8 units per week	8 units per week
** t-test, p<0.01 # χ^2 p<0.05 (between sexes, not between years)		

Males consumed significantly more alcohol (t-test $p < 0.01$) than females and were also significantly more likely to drink in excess of the recommended amount (χ^2 $p < 0.05$).¹⁰⁴ There were no significant differences in the proportion of males and females consuming in excess of recommended limits between 1993 and 1994. Also there were no significant differences in the amounts of alcohol consumed by males and females in 1993 and 1994.

There was no relationship between alcohol consumption in excess of recommended limits and those with OSI mental and physical ill-health scores comparable with patients suffering psychoneurotic disorders.

4.11.3 Exercise

43.3% of respondents admitted to taking less than one hour of vigorous exercise outside of the work place per week. There was no difference between the sexes in the amount of exercise undertaken. However, there was a significant reduction in the amount of exercise taken by the respondents in 1994 compared with 1993 (Wilcoxon, $p < 0.02$).

There was no relationship between those taking less than one hours exercise per week and those with OSI scores comparable with patients with psychoneurotic disorders for either mental or physical ill-health.

4.11.4 Changes in Coping Behaviours

Four of the ten smokers reported an increase in tobacco consumption, and 52.2% (70/134) of respondents stated that the amount of exercise undertaken had fallen since their pre-registration year. Most respondents who drank reported that their consumption remained static between the PRHO and SHO year (47.5%). Approximately equal numbers reported a decrease (25%) and increase (26.7%). See Figure 62 for details.

Figure 62 Change in smoking, drinking and exercise habits since becoming an SHO

	Alcohol			Smoking			Exercise		
	Increased	Decreased	Stayed the same	Increased	Decreased	Stayed the same	Increased	Decreased	Stayed the same
Male	13/55	17/55	25/55	1/5	1/5	3/5	13/61	34/61	14/61
Female	19/63	13/63	31/63	3/4	1/4	0	16/72	36/72	20/72
Total	30/118	32/118	56/118	4/9	1/9	3/9	29/133	70/133	34/133

4.12 Occupational Stress Indicator

4.12.1 Job Satisfaction

There was no significant difference in the scores of males and females with regards to job satisfaction. This is consistent with results for the respondents in 1993. (See Figure 63.)

Figure 63 Job satisfaction levels of respondents		
	Male n=58-61	Female n=68-70
Achievement value and growth	20.39 (4.45)	20.91 (5.00)
Job itself	15.25 (3.42)	14.88 (2.92)
Organisational structure and design	15.31 (3.69)	15.16 (3.73)
Organisational processes	14.00 (3.40)	13.01 (3.79)
Personal relationship	10.78 (2.92)	10.61 (2.62)
Total job satisfaction	75.21 (15.65)	74.26 (15.80)
(sd in brackets)		

The respondents reported significantly greater satisfaction with the achievement value and growth aspect of job satisfaction, and the job itself than they did as PRHOs in 1993 (see Figure 64).

Figure 64 Comparison of job satisfaction scores of the cohort in 1994 and 1993		
	1994 Total n=122-129	1993 Total n=122-129
Achievement value and growth	20.68 (4.76) ***	19.52 (4.34)
Job itself	15.03 (3.16) *	13.98 (2.90)
Organisational structure and design	15.20 (3.65)	14.61 (3.41)
Organisational processes	13.53 (3.64)	12.87 (3.54)
Personal relationship	10.62 (2.76)	10.82 (2.40)
Total job satisfaction	74.23 (15.23)	71.43 (13.77)
sd in brackets t-test * p<0.05 ***p<0.001		

The respondents scored significantly lower on all aspects of job satisfaction and total job satisfaction compared with a sample of non-health care workers. (see Figure 65). Job satisfaction was significantly negatively associated with mental ill-health ($r = -0.39$ $p < 0.001$) and physical ill-health ($r = -0.26$ $p < 0.01$).

Figure 65 Comparison of job satisfaction scores for respondents and a sample of non-health care workers		
	Total 1994 n= 126-131	Non-health care workers n=6326
Achievement value and growth	20.67 (4.74)	21.66 (5.74) *
Job itself	15.05 (3.16)	16.34 (3.25) ***
Organisational structure and design	15.23 (3.70)	16.73 (4.17) ***
Organisational processes	13.50 (3.63)	15.54 (3.78) ***
Personal relationship	10.69 (2.75)	11.78 (2.51) ***
Total job satisfaction	74.70 (15.65)	81.76 (16.64) ***
sd in brackets t-test **p<0.01 *** p<0.001		

4.12.2 Mental and physical ill-health

Females reported significantly worse mental and physical ill-health compared with the males (Figure 66). This is consistent with the results for the respondents in 1993.

Individuals with clinically significant mental health problems, so called “cases”, can be identified by comparing their scores with the scores of patients with psycho-neurotic disorders. The critical scores for “caseness” were identified as being 76.97 or above for mental ill-health, and 45.39 or above for physical ill-health.¹⁰⁵ Using these scores as a standard, 25 respondents (20 females and 5 males) scored above the mean of the patient group on mental and 19 (13 females and 6 males) on physical ill-health. Fourteen respondents (10.6%) were cases for both mental and physical ill-health. The females were significantly more likely than the males to be classified as cases for mental ill-health. See Figure 66.

Figure 66 Mental and physical ill-health scores of respondents		
	Males n=62	Females n=70
Mental ill-health	53.47 (16.22) ***	67.37 (13.74)
<i>Number of cases</i>	5#	20
Physical ill-health	29.27 (10.36) ***	36.49 (10.13)
<i>Number of cases</i>	6	13
sd in brackets t-test ***p<0.001 # χ^2 p<0.01		

There was no significant difference in mental and physical ill-health scores in 1994 compared with 1993 when the groups were PRHOs. There was no significant difference in the proportion of respondents classified as mental and physical cases in 1993 and 1994. However 59% (10) of those classified as “cases” for mental ill-health, and 46% (12) of those classified as “cases” for physical ill-health in 1993 continued to be classified as “cases” in 1994.

The respondents had significantly worse mental and physical ill-health compared with a sample of non-health care workers. See Figure 67.

Figure 67 Comparison of mental and physical ill-health scores for respondents and a sample of non-health care workers		
	Total 1994 n=132	Non-health care workers n=6326
Mental ill-health	60.84 (16.44)	56.54 (12.47) **
Physical ill-health	33.10 (10.82)	29.69 (9.79) ***
sd in brackets t-test ** p<0.01 *** p<0.001		

4.13 Multivariate analysis

Stepwise multiple regression analysis was used to determine the relationship between the dependent variables (total job satisfaction, mental ill-health and physical ill-health) and various independent variables (see appendix 7 for a detailed list of independent variables). Interaction between the dependent variables was not considered. In order to isolate optimal predictors the cut off point was determined by the criteria that the overall F ratio of the equation was significant and that the partial regression coefficient for the individual independent variable added to the equation was significant ($p < 0.05$) and explained at least 1% of the variance.

4.13.1 Job satisfaction

Six variables were significant predictors of high job satisfaction, accounting for 45% of the variance. The main predictor was the respondents' perceived level of control, accounting for 18% of the variance, those who felt in control of their job having higher job satisfaction. Other predictors of job satisfaction are shown in Figure 68 and include believing that one did **not** work too long hours, that ones skills were **not** under-utilised and **not** worrying about the threat of litigation (all entering the equation in a negative direction).

Figure 68 Predictors of job satisfaction						
Dependent variable	Step	Independent variable	Beta	T Value	P	Adjusted r ²
Job satisfaction (High score = high satisfaction)	1	Control	0.25	3.32	<0.01	0.18
	2	Supervision from boss	0.29	4.15	<0.001	0.07
	3	Length of hours	-0.29	-4.03	<0.001	0.06
	4	Job status at SHO level	0.29	3.97	<0.001	0.08
	5	Under-utilisation of skills	-0.19	-2.76	<0.01	0.03
	6	Fear of litigation	-0.15	-2.25	<0.05	0.02
Total variance	F=17.29, p<0.001, df 114					45%

4.13.2 Mental and physical ill-health

Five variables were significant predictors of mental ill-health, accounting for 37% of the variance. This dependent variable was negatively polarised in that the greater the score the worse the mental ill-health of the respondent. Being female was the main predictor of poor mental health accounting for 18% of the variance. Other predictors of poor mental ill-health are shown in Figure 69.

Figure 69 Predictors of mental ill-health						
Dependent Variable	Step	Independent variable	Beta	T value	P	Adjusted r ²
Mental ill-health (high score = poor mental health)	1	Gender (being female)	-0.32	-4.36	<0.001	0.18
	2	Feeling isolated at work	0.29	3.88	<0.001	0.13
	3	Quantity of work	0.20	2.68	<0.01	0.03
	4	Regret in choosing medicine as a career	0.18	2.32	<0.05	0.02
	5	Rating SHOs pay	0.15	2.08	<0.05	0.01
Total variance	F= 16.0, p <0.001, df = 120					37%

Six variables were significant predictors of physical ill-health, accounting for 32% of the variance. The significant predictors of poor physical ill-health were similar to those for mental ill-health. The main predictor was regret at choosing medicine as a career accounting for 15% of the variance. Other predictors of poor physical ill-health are shown in Figure 70. It should be noted that perceived control entered the equation in a negative direction e.g. a lack of perceived control resulted in poorer physical health. Feeling part of a team was also a predictor of physical health, although this result may be influenced by the small numbers involved (only 7 did not feel part of a team).

Figure 70 Predictors of physical ill-health						
Dependent variable	Step	Independent variable	Beta	T value	P	Adjusted r ²
Physical ill-health (high score = poor physical health)	1	Regret choosing medicine as a career	0.18	2.16	<0.05	0.15
	2	Quantity of work	0.19	2.46	<0.01	0.05
	3	Gender	-0.26	-3.34	<0.01	0.05
	4	Feeling isolated	0.21	2.62	<0.01	0.03
	5	Feeling in control	-0.20	-2.45	<0.05	0.02
	6	Feeling part of a team	0.17	2.21	<0.05	0.02
Total variance	F =10.96, p<0.001, df = 119					32%

Section 5 Results of the survey of the morale of Pre-Registration House Officers in the West Midlands, South West Region, Oxford Region and parts of the Trent Region in 1994, including changes in the morale of PRHOs between 1993 and 1994

5.1 Response rate

The study population amounted to 735 of the total number of PRHOs identified (828, see page 56). 433 replied, giving an overall response rate of 58.9%. The breakdown of responses per Region was West Midlands 76.9% (183/238), South West region 55.7% (97/174), Oxford Region 33.0% (38/115), Mid Trent 56.8% (46/81) and North Trent 51.2% (66/127).

Not all respondents answered every question (selective response), therefore results for some questions are based on less than all the respondents (404-433).

5.2 Biographical details

The mean age of respondents was 24.7 years. The majority were Caucasian, entered medical school immediately after A levels, and single (Figure 71), although significantly more of the multi-region respondents were married compared to WM respondents in 1993.

Over four fifths (86.4%) of the respondents had fathers, and 57.7% had mothers, in social classes I and II. Very few respondents came from working class/manual labour backgrounds (III_m, IV, V). 16.7% of respondents had one or other doctor-parents with males significantly more likely than females to have at least one doctor parent (21.2% vs. 12.7%, χ^2 , $p < 0.02$). The proportion of respondents with a doctor-parent is similar to that reported for the WM in 1993.

Figure 71 Biographical details of respondents			
		Multi study PRHOs	WM PRHOs (1993)
Mean age		24.7 years	24.5 years
Sex of respondents	Male	204 (47.1%)	91 (46.7%)
	Female	229 (52.9%)	104 (52.3%)
Marital status	Single	335 (77.4%)	166 (84.7%)
	Married or cohabiting	96 (22.1%) #	30 (15.3%)
	Divorced	1 (0.2%)	-
	Widowed	1 (0.2%)	-
Presence of children		10 males and 7 female had children	3 males and 1 female had children
Ethnic origin	White	364 (84.3%)	158 (80.9%)
	Indian	23 (5.3%)	18 (9.3%)
	Pakistani	9 (2.1%)	5 (2.6%)
	Chinese	13 (3.0%)	6 (3.1%)
	Other	23 (5.3%)	9 (3.8%)
Entry to medical school		310 (71.9%) had entered medical school in 1988 315 (72.7%) had entered University immediately after A levels.	- 157 (80.5%) had entered University immediately after A levels
Intercalation of a degree		132 (30.7%)	46 (23.7%)
$\chi^2 p < 0.05$			

5.3 Influences and pressure to study medicine

In this section the term “influence” is taken to mean a positive unconscious motivation to do something. “Pressure” has been used in the sense of active persuasion, perhaps in the face of resistance.

212/433 (49.0%) respondents felt that their parents had influenced their decision to study medicine to some extent, compared to 52.6% in 1993. Of those who considered themselves influenced, 139 (32.1%) considered this influence to be weak, 39 (9%) moderate and 34 (7.8%) strong. Fifty six (77.8%) respondents whose parents were doctors felt that their parents influenced their decision to become a doctor, compared with 156 (43.8%) of respondents whose parents were not doctors. These differences were significant. (χ^2 , $p < 0.0001$)

90 respondents had a doctor as a first degree relative, with a further 64 having a doctor as a second degree relative. Of the 156 respondents with medical relatives, 95 (60.9%) felt that their decision to study medicine had been influenced by this relationship to some degree. The majority however felt that this influence had only been slight.

144 respondents believed that their decision to study medicine had been influenced by other non-family contacts. The most frequently cited sources of influence were friends (56/144), teachers (60/144) and the school careers service (36/144). Twenty four people had been influenced by their family doctor.

80 respondents stated that they had been pressurised into studying medicine to some degree. The majority of these were under only a small amount of pressure, although for an unfortunate 11 respondents this pressure was thought quite considerable. The main sources of pressure were parents (66/80), schools (33/80) and friends (13/80). 26.4% of respondents with doctor-parents felt

pressurised compared with 16.9% whose parents were not doctors, (χ^2 , not significant).

Of the 11 who were under considerable pressure, 10 felt this pressure was exerted by parents, 5 by school and 3 friends and one by a professional body. Seven of the 8 also felt that they were considerably influenced to study medicine by their parents.

Forty two respondents reported that they studied medicine because of parental pressure or expectations. 95.2% of these people also reported that their parents had influenced them to some degree and 90.5% reported that their parents had pressured them into studying medicine in a previous question.

5.4 Careers advice prior to medical school

Only 50.1% (216) of respondents had received specific careers advice about medicine compared to 48.5% in 1993. Of these 216 people, the school had actively volunteered the information in 82 cases, the remainder had sought it for themselves. 198 (45.9%) of respondents had stated that their school had suggested to them that a career in medicine would be “a good idea.” 178 (41.3%) of respondents had read publications such as “Learning Medicine”¹⁰³ before applying to Medical School.

Nearly all of the respondents were aware of the length of undergraduate training prior to applying to Medical School (97.0%). However only 54.9% (compared to 32.6% in 1993, χ^2 , $p < 0.001$) were aware of the length of postgraduate training at that stage of their career and 34.8% (150) aware that PRHOs were expected to work long hours. Only 117 (27.6%) respondents were aware of all these three facts, compared to 20.9% in 1993.

There was no significant difference in the knowledge of respondents who had received career advice at school about medicine and those who did not with regard to these three issues. However, respondents with doctor-parents were significantly more likely to be aware of the long hours of work than respondents of non-doctor parents (χ^2 , $p < 0.001$).

In terms of practical experience of medicine such as spending time with a doctor, 161 respondents had been able to spend time with a GP or a consultant before applying to medical school. School had arranged this in 39 cases, and someone other than school in 108 cases. Fourteen had the opportunity arranged by both methods. Only 26 respondents had the opportunity to spend time with a PRHO. 43.1% of respondents who were children of doctors spent time with a doctor prior to application, as did 38.5% of respondents whose parents were not doctors (not significant). This compares with 58% of 1993 respondents with doctor parents (χ^2 , $p < 0.001$) and 40% of 1993 respondents with non doctor parents.

5.5 Desire to study medicine

Over half (241) of the respondents had decided that they wished to be doctors by the age of 15 (mean 14.1 years (sd. 4.14), range “earliest memories” to 27 years). This compares with 101/196 of 1993 respondents. The majority expressed a strong desire for this (median 5 on a scale of 1 (very weak) to 6 (very strong)). For 8 people it had been very weak. In addition 23.4% had never contemplated studying anything other than medicine.

Respondents who had decided to be a doctor by the age of 15 had a significantly stronger desire compared to those who decided after 15 years of age (χ^2 , $p < 0.001$). There was no significant difference in level of desire between the sexes, which is contrary to the 1993 findings in which females expressed a greater level of desire.

Those who felt pressured into studying medicine showed a weaker desire to study medicine than those who had not felt pressurised (χ^2 , $p < 0.001$). This is consistent with the 1993 findings.

5.6 Reasons for studying medicine

Reasons for studying medicine are given in Figure 72. 71.6% stated that they enjoyed working with people, and over a half reported that they wished to help people. 22.6% stated that they studied medicine for the money! Females were more likely to choose medicine because they enjoyed working with people (χ^2 , $p < 0.01$), or because it was something they had always wanted to do. Men were more likely to study medicine because of its professionalism (χ^2 , $p < 0.05$), or for money (χ^2 , $p < 0.001$) or to have power (χ^2 , $p < 0.05$). Equal numbers studied medicine because they were good at science. These findings are very similar to those reported for the 1993 respondents.

Figure 72 Reasons for studying medicine			
Reasons for studying medicine	Total N (%) Base = 433	Males N (%) Base = 204	Females N (%) Base = 229
Enjoyed working with people	310 (71.6)	131 (64.2)	179 (78.2) **
In order to help people	252 (58.2)	119 (58.3)	133 (58.1)
Good at science at school	279 (64.4)	134 (65.7)	145 (63.3)
Always wanted to be a doctor	177 (40.9)	77 (37.7)	100 (43.7)
Studied medicine for its professionalism	168 (38.8)	91 (44.6)	77 (33.6) *
In order to save lives	124 (28.6)	59 (28.9)	65 (28.4)
For respect	5 (1.2)	3 (1.5)	2 (0.9)
Studied medicine for the money	98 (22.6)	70 (34.3)	28 (12.2) ***
Parental pressure/Expectations	42 (9.7)	23 (11.3)	19 (8.3)
Studied medicine in order to have power over others	23 (5.3)	16 (7.8)	7 (3.1) *
Job security	19 (4.4)	9 (4.4)	10 (4.4)
Course/subject	31 (7.2)	16 (7.8)	15 (6.6)
For interest	37 (8.5)	16 (7.8)	21 (9.2)
Not good enough to be a vet	11 (2.5)	5 (2.5)	6 (2.6)
For the challenge	12 (2.8)	5 (2.5)	7 (3.1)
Unable to pursue original career choice	9 (2.1)	7 (3.4)	2 (0.9)
Intellectual reasons	6 (1.4)	2 (1.0)	4 (1.7)
Other reasons	41 (9.5)	24 (11.7)	27 (11.8)

χ^2 , * $p < 0.05$ ** $p < 0.02$ *** $p < 0.001$ Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

5.7 Leaving before graduation

A total of 150 (34.8%) of respondents stated that they contemplated leaving medical school prior to graduation. The majority of these individuals contemplated leaving in years 2 (26) and 3 (30), although 45 respondents contemplated leaving during more than one year. These results are similar to the 1993 WM respondents.

Respondents were asked how seriously they contemplated leaving medicine on a scale of 1 (not very seriously) to 6 (very seriously). Fifty two respondents (34.9%) reported that they had not contemplated leaving very seriously (rated 1, 2). Fifty (33.6%) rated it moderately (3,4) and 47 (31.5%) rated it seriously (5,6).

The reasons for continuing undergraduate studies are shown in Figure 73. Many of the reasons could be interpreted as a maladaptive or transient response to stress. Indeed respondents who had to resit an exam were significantly more likely to contemplate leaving prior to graduation (χ^2 , $p < 0.001$). Contemplating leaving medicine before graduation was also associated with regret. (χ^2 , $p < 0.001$).

Figure 73 Reasons for continuing undergraduate studies	
Reasons for continuing study	Total (%) (N=149)
Didn't know what else to do	60 (40.3)
Unable to transfer for financial reasons	22 (14.8)
Passed exams	29 (19.5)
Waste to leave	15 (10.1)
Own attitudes changed, becoming more favourable	27 (18.1)
Things would improve	8 (5.4)
Could not be bothered to change	12 (8.1)
Pressure from others to remain	19 (12.8)
Easiest route	1 (0.7)
Worthwhile in the long term	1 (0.7)
No alternative	5 (3.4)
Solved problems	7 (4.7)
Other	14 (9.4)
Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.	

5.8 Regretting and leaving medicine

55.7% stated they regretted studying medicine somewhat. This is similar to the 1993 findings. The main reasons for regret were interference with the rest of one's life, long hours and poor pay (Figure 74). Females were more likely to express regret because of the responsibility (χ^2 , $p < 0.02$). There was an association between desire to study medicine and regret (χ^2 , $p < 0.01$) and those who had considered a career other than medicine, were significantly more

likely to report regret than those who had not considered another career (χ^2 , $p < 0.01$).

Figure 74 Reasons for regretting entering medicine			
	Total n (%) Base = 429	Males n = 202	Females n = 227
Medicine interferes with the rest of one's life	203 (47.3)	87 (43.1)	116 (51.1)
Too long hours	205 (47.8)	90 (44.6)	115 (50.7)
Pay is poor	98 (22.8)	47 (23.3)	51 (22.5)
Professional exams too hard	48 (11.2)	18 (8.9)	30 (13.2)
Too much responsibility	44 (10.3)	13 (6.4)	31 (13.7) *
Experiences at and of work	22 (5.1)	11 (5.4)	11 (4.8)
Attitudes of others	19 (4.4)	9 (4.5)	10 (4.4)
Career structure	8 (1.9)	4 (2.0)	4 (1.8)
Other reasons	44 (10.3)	23 (11.4)	21 (9.3)
* χ^2 , $p < 0.05$ Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.			

Those respondents who were aware of issues such as the length of PRHOs hours (χ^2 , $p < 0.001$) and of post-graduate training (χ^2 , $p < 0.01$) expressed less regret than those who were unaware of these issues.

Those respondents who regretted entering the medical profession were more likely to be classed as a "case" for mental (χ^2 , $p < 0.001$) or physical (χ^2 , $p < 0.01$) ill-health by the OSI.

12.2% stated that they would not study medicine if they had their time again (23 men, 30 women, χ^2 , not significant). This is similar to the findings in 1993. Most respondents gave more than one reason for not studying the subject again. Reasons included hours being too long, interference with the rest of one's life, poor pay, too stressful.

Respondents were asked to state if they would leave the profession at PRHO level for a variety of scenarios. 10.7% stated they would leave because of poor pay; 46.6% because of poor working conditions; 47.8% because of the long hours required of a PRHO; and 22.3% because of managerial constraints. Other reasons cited included others attitudes, lack of support, lack of enjoyment and effect on personal life. There were no significant differences between males and females. These findings are similar to 1993 findings.

97.7% of respondents were intending to take up a SHO post, 2 respondents were unsure, and 8 people were leaving the profession. However, 90.7% were intending to pursue a career in medicine beyond SHO level (6.1% not intending to continue, 14 (3.3%) people unsure). Six percent (26/432) had taken steps towards leaving the profession, with 14/26 reading job adverts, 3/26 applying for jobs and 3/26 applying to study another subject. The alternative careers mentioned were many and varied, but included pharmacy, management and administration, law, journalism, research and business. Some gave more than one reason indicating that they were unsure of their next career move. These findings are similar to 1993.

Of those that had taken steps to leave 57.7% had received careers advice prior to graduation and 50% had received career advice in their pre-registration year. There was no significant differences in career advice received by those who had taken/not taken steps to leave. 35% of 1993 respondents had received careers advice prior to graduation and 30% during their pre-registration year (not significant).

5.9 A career in medicine

51.2% of respondents had received careers advice in their pre-registration posts. In addition, only 47.6% had received some form of careers guidance before graduation. This is similar to 1993 findings.

When asked which career path they would like to follow, 55.9% stated a hospital speciality, with medicine and surgery the most preferred. 15.2% were undecided, 2 people wished to undertake missionary work, and 3 people stated a non medical career path. 26.8% intended to become GPs. Significantly more females intended to pursue a career in General Practice (χ^2 , $p < 0.001$) whereas significantly more males than females were planning a career in surgery (χ^2 , $p < 0.001$). No other significant differences were observed. See Figure 75.

Reasons for choosing a particular career path were varied, although the main reason was experience and enjoyment (see Figure 76). Reasons differed according to subject and sex. Females were significantly less likely than males to choose their career for reasons based on interest in their specialty. However females (although not significantly different) were more likely to base their choices on social considerations, enjoyment and advice compared with males.

54 people (18 males and 36 females, not significant) reported that realistically they would be unable to follow their first choice career. Forty seven of these people had planned a hospital based specialty, one psychiatry, one public health, one aid work, one palliative care, one GP and two a career outside medicine. The main reasons for anticipated difficulty were that their original career required hard work (35.2%), social reasons (46.3%) and corruption/prejudices in obtaining promotion (14.8%), too much commitment (11.1%), long hours (9.3%), too competitive (13%). Thirty four people who anticipated difficulty would choose general practice as their alternative career path.

Figure 75 Career Intentions at PRHO level			
Career Intention	Total (%) n=433	Males (%) n=204	Females (%) n=229
Hospital- no speciality	35 (8.1)	18 (8.8)	17 (7.4)
General Practice	117 (27.0)	40 (19.6)	77 (33.6) ***
Hospital -surgery	59 (13.6)	45 (22.1)	14 (6.1) ***
Hospital -medicine	70 (16.2)	31 (15.2)	39 (17.0)
Psychiatry	12 (2.8)	7 (3.4)	5 (2.2)
Paediatrics	17 (3.9)	8 (3.9)	9 (3.9)
Obstetrics and Gynaecology	18 (4.2)	7 (3.4)	11 (4.8)
Histopathology	2 (0.5)	2 (1.0)	0
Anaesthetics	26 (6.0)	15 (7.4)	11 (4.8)
Radiology	1 (0.2)	0	1 (0.4)
Public Health	2 (0.5)	1 (0.5)	1 (0.4)
Non-medical Direction	3 (0.7)	1 (0.5)	2 (0.9)
Missionary work	2 (0.4)	0	2 (0.9)
Gastroenterology or Paediatrics	1 (0.2)	1 (0.5)	0
Research	1 (0.2)	1 (0.5)	0
A&E or General Practice	1 (0.20)	0	1 (0.4)
Don't know	66 (15.2)	27 (13.2)	39 (17.0)
χ^2 * p<0.05 *** p<0.001			

44.5% (191) stated that they were aware of opportunities for part-time training (82 (40.8%) male and 109 (47.8%) female NS). Significantly more females (212 (93.4%)) than males (115 (57.2%)) were prepared to work part-time ($\chi^2, p < 0.001$)

Figure 76 Reason for selecting a particular career path			
Reason for choosing a career path	Males (%) n=164	Females (%) n=180	Total (%) n=344
Interest in specialty	30 (18.3) **	15 (8.3)	45 (13.1)
Social considerations	22 (13.4)	33 (18.3)	55 (15.9)
Experience of specialty	66 (40.2)	63 (35.0)	129 (37.5)
Enjoyment of specialty	53 (32.3)	72 (40.0)	125 (36.3)
Strength/best suited subject	7 (4.3)	7 (3.9)	14 (4.1)
Career considerations	12 (7.3)	7 (3.9)	19 (5.5)
Advice	14 (8.5)	21 (11.7)	35 (10.2)
Elimination of other subjects	12 (7.3)	15 (8.3)	27 (7.8)
Personal Involvement	3 (1.8)	9 (5.0)	12 (3.5)
Always wanted to specialise in this area	10 (6.1)	13 (7.2)	23 (6.7)
Challenge	1 (0.6)	2 (1.1)	3 (0.9)
Work in primary care	1 (0.6)	5 (2.8)	6 (1.7)
Dislike hospital medicine	9 (5.5)	17 (9.4)	26 (7.6)
Personal reasons	5 (3.0)	5 (2.8)	10 (2.9)
Like hospital medicine	2 (1.2)	9 (5.0)	11 (3.2)
Other	13 (7.9)	18 (10.0)	31 (9.0)

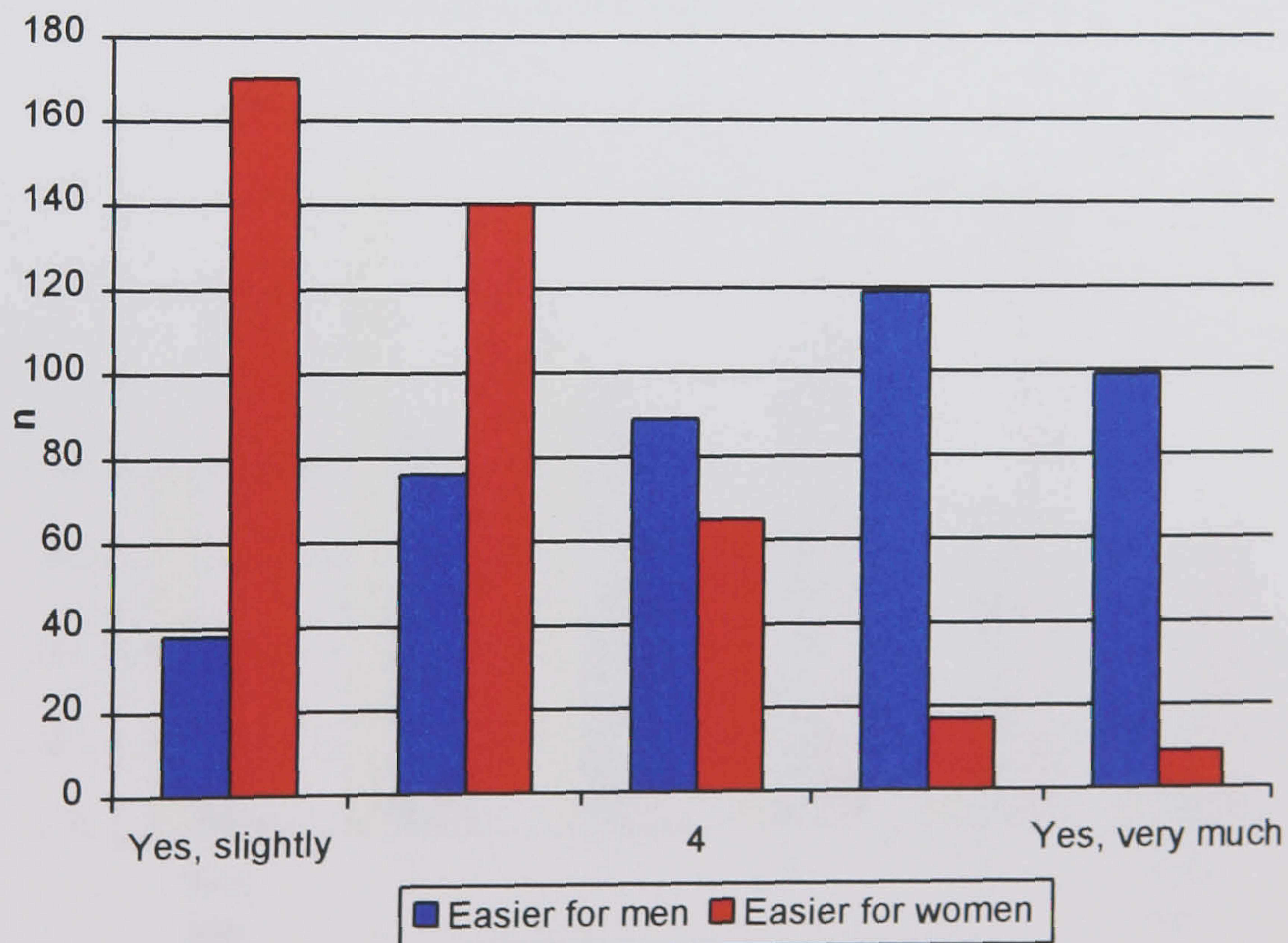
χ^2 ** $p < 0.01$ Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.

5.10 Medicine and the family

60.7% of respondents believed that a career in medicine was most suited to males, with 38.6% believing that it was equally suited to both males and females. Three considered it more suited to females.

Respondents believed that it was easier for males to combine a career with a family than for women. Responses were rated on a scale of 1 to 6, where 1 equalled “no”, 2 “yes slightly” and 6 “yes very much”. Only 10% did not believe to some degree that males did not progress their career in medicine faster than women. See Figure 77. An overwhelming proportion of respondents (97.7%) believed that the regular changing of jobs in order to progress up the career ladder was a source of stress.

Figure 77 Ease with which men and women can combine medicine with family life

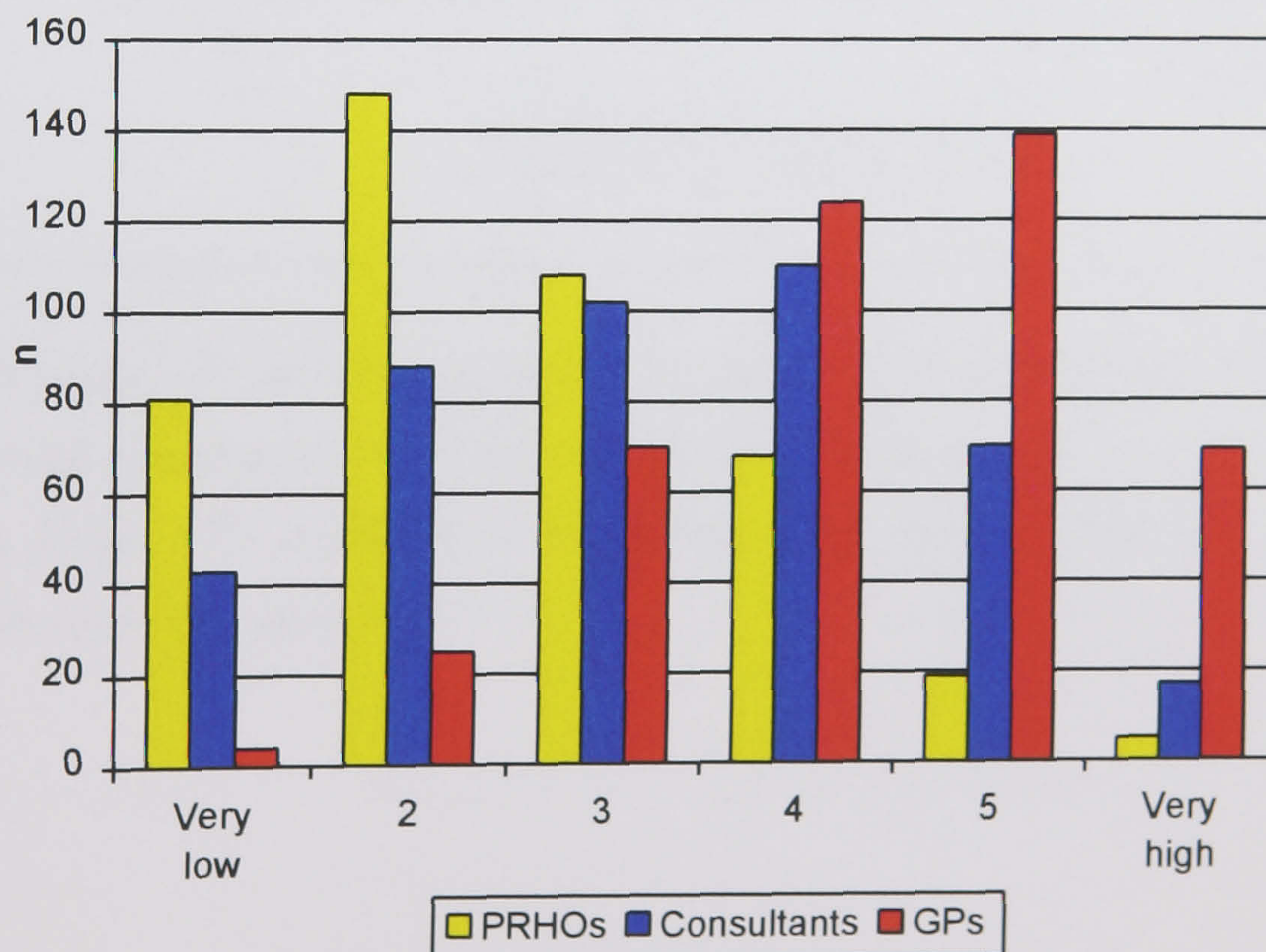


5.11 How you view medicine

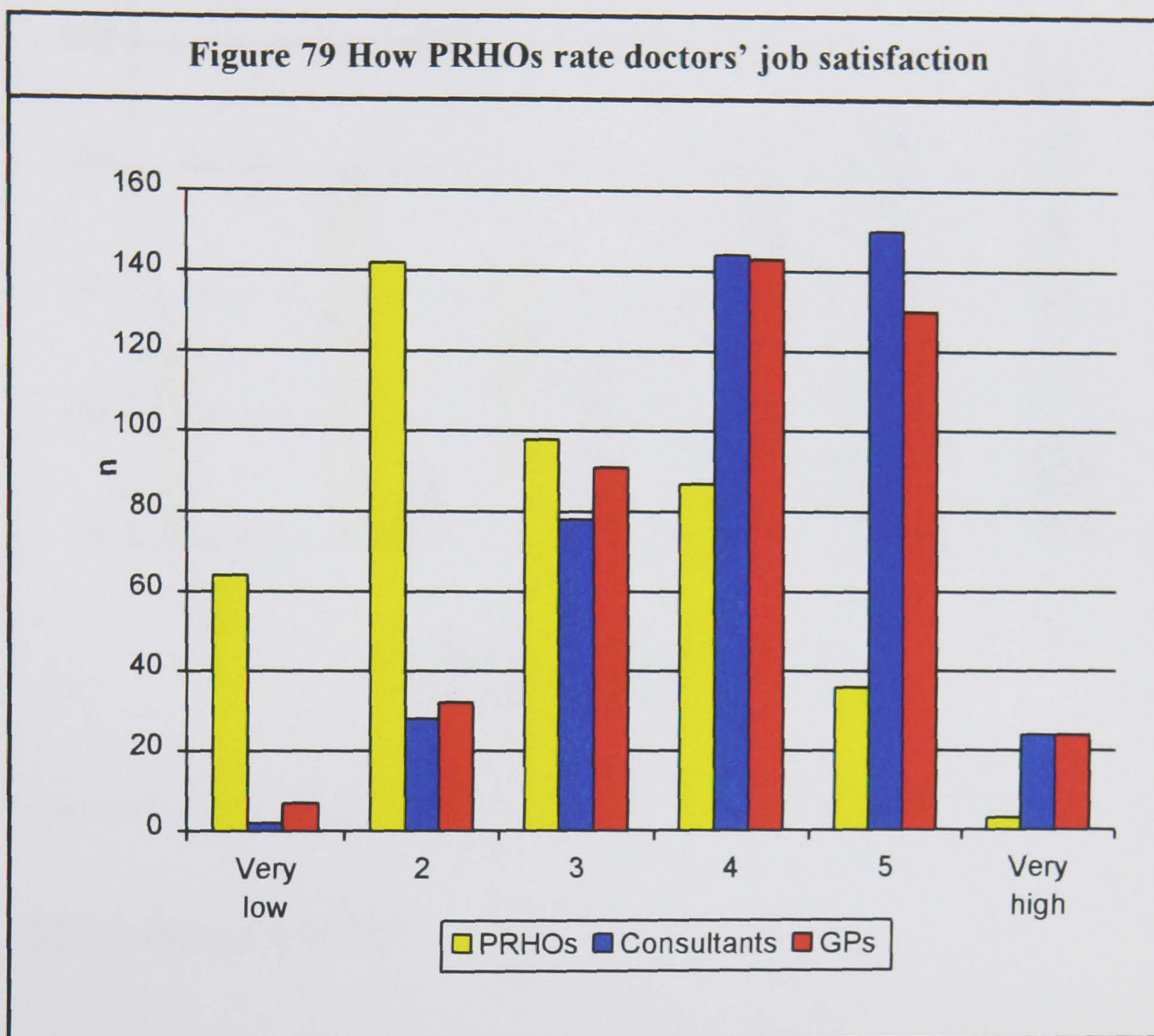
Respondents were asked to rate the level of pay, job satisfaction, and job status for PRHOs, GP principals and consultants on a scale of 1 (very low) to 6 (very high). Figure 78 to Figure 80 illustrate respondent's views.

229 (53.4%) of PRHOs rated their pay as low (scoring 1-2), 176 (41.0%) moderate (scoring 3-4) and only 24 (5.6%) high (scoring 5 or 6). 131 (30.5%) of respondents felt that consultants pay was low compared with 29 (6.7%) who considered GP pay to be low. 212 (49.3%) and 194 (45.0%) of respondents believed consultant and GP pay to be moderate. Only 87 (20.2%) respondents considered consultant pay to be high compared to 208 (48.2%) who thought GP pay was high. In short, PRHOs considered GPs well paid, consultants poorly paid and themselves reasonably/poorly paid (Figure 78).

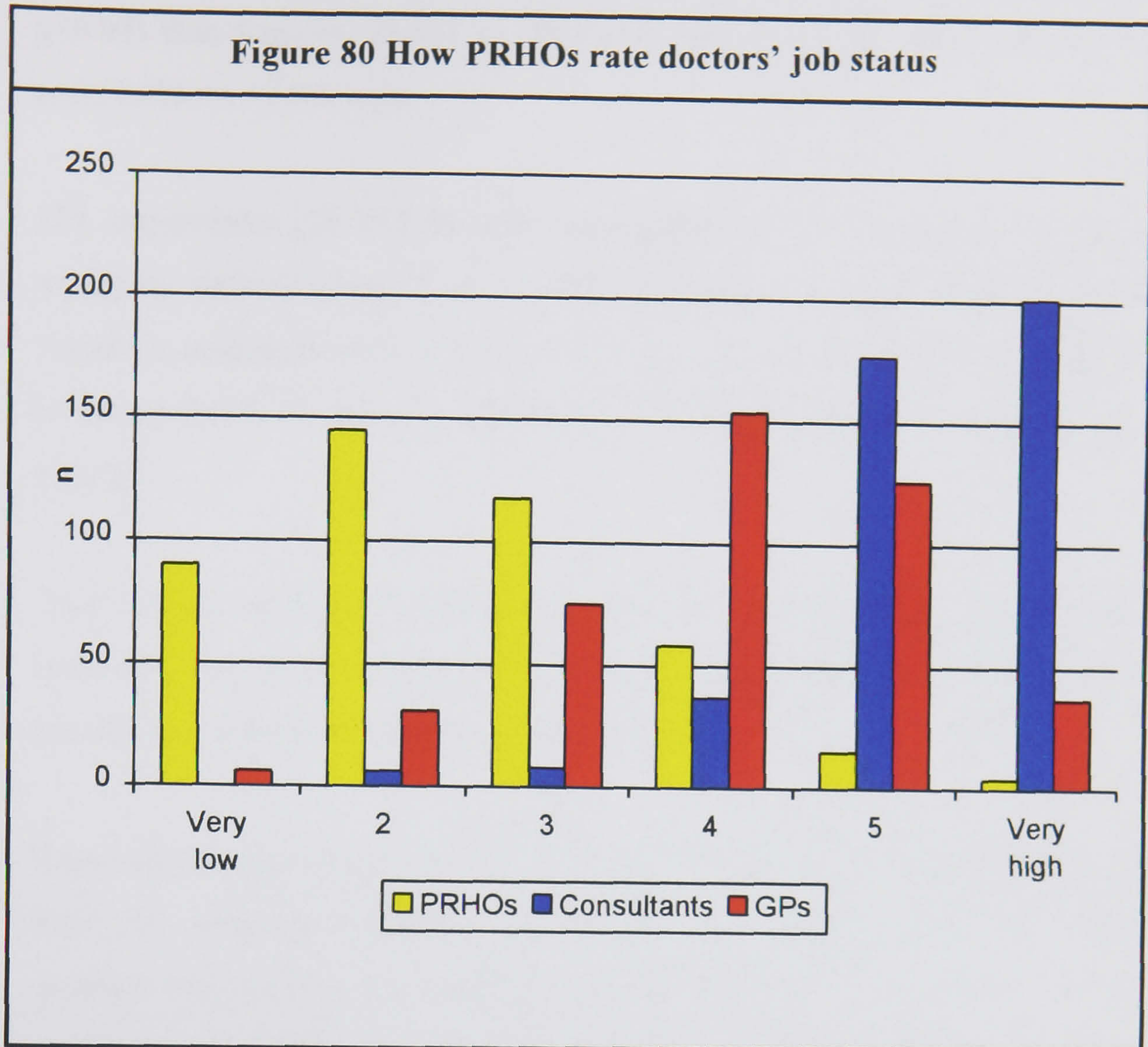
Figure 78 How PRHOs rate doctors' pay



Both consultants and GPs are perceived to have much the same (moderate/high) job satisfaction. PRHOs on the other hand scored the reverse - only 29.5% scoring 4,5 or 6 ("moderate/high") for job satisfaction (Figure 79).



Both consultants and GPs are perceived to have higher job status than PRHOs, although consultants were believed to have marginally higher job status than GPs. Only 17.9% of PRHOs scored job status moderate to highly (4,5 or 6) for themselves (Figure 80).



5.12 Working as a PRHO

Respondents were asked to rate:

- their morale
- how easy they thought it would be to climb the career ladder in medicine
- how much work they had to do

on a scale of one to six, where one was equal to very low/difficult/far too little and six equalled very high/easy /far too much.

119 respondents (27.5%) reported their morale to be low (rated 1 or 2), 246 (56.9%) rated their morale as moderate (3 or 4) with only 67 (15.5%)

reporting it to be high. Males rated their morale significantly higher (χ^2 , $p < 0.02$) than females, 28.4% vs. 26.8% as low, 51.0% vs. 62.3% moderate and 20.6% vs. 11.0% high.

154 respondents (35.6%) thought climbing the career ladder in medicine would be difficult (rated 1 or 2). 251 respondents (58.1%) thought that it would be moderately difficult (rated 3 or 4), 27 (6.3%) thought that it would be easy (rated 5, 6). Females believed it to be significantly more difficult (χ^2 , $p < 0.05$).

Only 3.0% of respondents reported that they had too little work to do. Similar numbers believed that the quantity of work required was acceptable (51.2%) (scored 3 or 4) or that it was too much (45.8%, scored 5 or 6).

Respondents were asked a number of questions perceived to be important to their job satisfaction, morale and physical and mental well-being. Each question was answered on a scale of one to six where one was equal to “no”, 2 equal to “yes slightly” and six equal to “yes very much”. The responses to each question are presented in Figure 81 and Figure 82.

The vast majority of respondents (94.9%) felt committed to some degree to a career in medicine, however 29.8% were not entirely happy with their profession.

86.1% of respondents reported some level of support consultant, with the majority (69.5%) also being able to report that they received some form of feedback from their boss. Good support was also received from nursing staff. However hospital managers fared less well, with only 34.2% reporting some level of support, and the majority of these reported only a little support. There were no sex differences on the issue of support - neither sex felt discriminated in the amount of support they received.

Nearly two thirds of respondents felt isolated at work. 15.2% stated that they did not feel in control of their job, but there was no differences between the sexes.

Few respondents (3.5%) reported that they did not feel at all stressed, however despite this 87.3% reported that they found their job satisfying.

363/433 (83.8%) respondents felt that they were not underworked but 83.8% of respondents felt that their skills were under-utilised. There was no difference between the sexes.

Only 10 people reported that they did not experience a sense of camaraderie with other PRHOs working within their hospital.

Most felt that there was a scramble for jobs in order to advance a career in medicine. 47.3% believed this to be very much the case, with males and females holding similar opinions on this issue. Most (91.2%) believed that being a doctor gave them security of employment.

85.2% of respondents were concerned to some degree about the possibility of litigation. Significantly more women than men were concerned about this aspect of medical practice (χ^2 , $p < 0.001$).

The majority of respondents (397, 91.7%) reported that they felt part of a team in work.

These results are all similar to those reported for the 1993 WM respondents.

Figure 81 Morale related responses of PRHOs (1)

	1 (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)	6 (n, %)
Are you committed to a career in medicine?	22 (5.1)	46 (10.6)	53 (12.2)	65 (15.0)	147(33.9)	99 (22.9)
Are you entirely happy with your profession?	129 (29.8)	40 (9.2)	75 (17.3)	96 (22.2)	76 (17.6)	16 (3.7)
Do you feel you have good support from your boss?	60 (13.9)	48 (11.1)	55 (12.7)	72 (16.6)	123(28.4)	75 (17.3)
Do you feel that you have good support from nursing staff?	51 (11.8)	67 (15.5)	63 (14.5)	116(26.8)	90 (20.8)	44 (10.2)
Do you feel that you have good support from your hospital management?	285 (65.8)	75 (17.3)	34 (7.9)	26 (6.0)	6 (1.4)	3 (0.7)
Do you feel in control of your job?	66 (15.2)	61 (14.1)	56 (12.9)	92 (21.2)	122(28.2)	36 (8.3)
Do you feel isolated (lonely on your own) at work?	159(36.7)	90 (20.8)	51 (11.8)	46 (10.6)	55 (12.7)	32 (7.4)
Do you receive feedback from your boss?	132(30.5)	100(23.1)	55 (12.7)	57 (13.2)	64 (14.8)	25(5.8)
1 = no, 2 = yes slightly, 6 = yes very much						

Figure 82 Morale related responses of PRHOs (2)

	1 (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)	6 (n, %)
Do you feel stressed?	15 (3.5)	65 (15.0)	49 (11.3)	113(26.1)	125(28.9)	63 (14.5)
Do you find your job satisfying?	55 (12.7)	81 (18.7)	91 (21.0)	100(23.1)	72 (16.6)	34(7.9)
Do you feel that your skills are currently under-utilised?	70(16.2)	49 (11.3)	42 (9.7)	74 (17.1)	105(24.2)	92 (21.2)
Do you feel a sense of camaraderie with other PRHOs working within your hospital?	10 (2.3)	20 (4.6)	31 (7.2)	45 (10.4)	109(25.2)	218(50.3)
Do you feel that there is a scramble for jobs in order to advance a career in medicine?	10 (2.3)	23 (5.3)	33 (7.6)	47 (10.9)	113(26.1)	205(47.3)
Do you think that being a doctor give you security of employment?	38 (8.8)	23 (5.3)	43 (9.9)	81 (18.7)	154(35.6)	94 (21.7)
Does the possibility of litigation concern you?	64 (14.8)	81 (18.7)	46 (10.6)	84 (19.4)	91 (21.0)	67 (15.5)
Do you feel underworked	363 (83.8)	22 (5.1)	20 (4.6)	18 (4.2)	8 (1.8)	2 (0.5)

1 = no, 2 = yes slightly, 6 = yes very much

5.13 You and your hours of work

68 (16%) (base = 424) stated that they worked for periods longer than 56 hours when on-call, including 6 people at 100 hours or more. The average maximum on-call duty worked was 52.4 hours (sd. 14.6). This is a (non significant) reduction on the 1993 findings.

Unsurprisingly, despite the push to move juniors onto shift and partial shift systems, 371 (86.7%) were still working an on-call rota system (compared to 93.9% in 1993), with just 19 (4.4%) working a full shift system and 34 (7.9%) working a partial shift system. Four people worked a combination of the systems.

5.13.1 Relationship between system of work, job satisfaction and ill-health

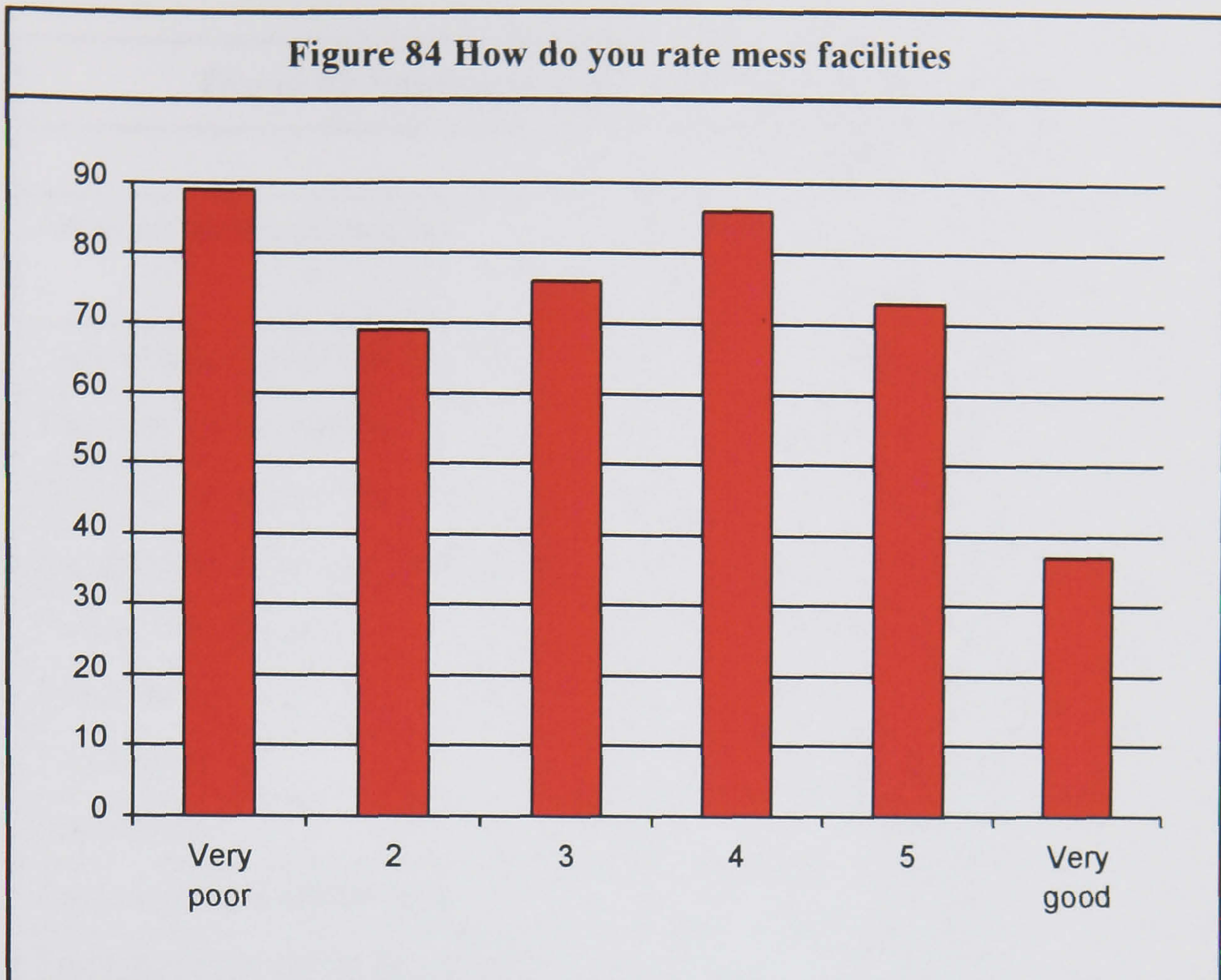
Group means for those PRHOs working on-call rotas, and shift systems were compared using a one way analysis of variance (ANOVA) for multiple comparison of means. Tukey's procedure was used to determine which means differed significantly from each other (reported to be significant at the 5% level of probability). See Figure 83.

Figure 83 Mean scores for job satisfaction and mental and physical ill-health of PRHOs according to their system of work						
OSI variable	On-call rota n=348-367	Partial shift n=31-33	Full-shift n=17-19	F Ratio	p	Difference Tukey's procedure p<0.05
Job satisfaction	72.28	72.39	69.00	0.37 (df=2,402)	NS	ND
Mental ill-health	60.92	57.06	63.11	1.48 (df=2,410)	NS	ND
Physical ill-health	33.49	32.27	31.79	0.50 (df=2,409)	NS	ND
NS - not significant			ND = no difference			

There was no significant main affect between job satisfaction, mental ill health or physical ill health and system of work.

5.14 Hospital accommodation and facilities

Only 45.7% of PRHOs reported that they had access to freshly prepared meals when working outside of normal hours. This is similar to the 1993 findings. Only 54.5% of respondents lived in permanent hospital accommodation, the remainder using on-call rooms when on duty. Respondents were asked to rate the hospital accommodation, on-call rooms and mess facilities on a scale of 1 (very poor) to 6 (very good). On the whole these facilities were rated only moderately well, and there was clearly room for improvement in many hospitals. See Figure 84.



5.15 Improvements to undergraduate training

189 (43.6%) of respondents felt that undergraduate training did not prepare them adequately for the role of PRHO, and 105 (24.2%) stated that it prepared them only slightly. The major bone of contention was inadequate training in practical/clinical procedures (Figure 85). The findings are similar to those reported in 1993.

Figure 85 Appropriateness of undergraduate training	
	Multi region study
Areas covered inadequately	N (%) Base = 430
Lack of practical /clinical skills	146 (34.0)
Too much responsibility	25 (5.8)
Dealing with crisis or emergencies	4 (0.9)
Inappropriate training/information	66 (15.3)
Patient management	14 (3.2)
Effect on one self	3 (0.7)
Too theoretical	45 (10.5)
Economics	13 (3.0)
Administration duties/skills	26 (6.0)
Time management skills needed	16 (3.7)
Organisational skills	17 (4.0)
Day to day work of PRHO	79 (18.4)
Managing stress	12 (2.8)
Working with others (team building)	8 (1.9)
Lack of communication skills taught	25 (5.8)
Working conditions	25 (5.8)
Other	35 (8.1)
Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.	

114 (26.3%) stated that their undergraduate training had not prepared them for working within the NHS, with a further 142 (32.6%) stating that it had done so only slightly. Respondents were asked whether specific items should be included in undergraduate training (Figure 86). The responses are similar to those for 1993 WM respondents.

Figure 86 Items to be included in undergraduate training	
	n (%)
	Base = 433
Organisation of the NHS	279 (64.4)
Politics of the NHS	274 (63.5)
Time management	320 (73.9)
Pay deals	296 (68.4)
Dealing with managers	291 (67.2)
Stress management taught	351 (81.2)
Respondents could tick more than one preference on this question. Percentages are therefore based on the number of respondents, not responses. Column % will not add up to 100.	

192 (44.3%) of respondents also requested teaching on a variety of other topics at undergraduate level. These included information concerning practical skills of the realities of being a PRHO, communication skills, careers advice including how to apply for jobs, and handling responsibility. 92.3% of respondents stated that formal career counselling should be available with the supervising consultant, external counsellor or clinical tutor most frequently cited as a suitable counsellor. Sixty two percent wanted a formal stress counselling service to be provided, with a clear majority (76.7%) wanting this provided by a trained external counsellor.

5.16 Lifestyle and coping behaviours

Respondents were asked whether they drank alcohol or smoked, and if they did, whether their consumption of these drugs had increased since beginning work. These habits are well-recognised as behavioural responses to stress.

5.16.1 Smoking

Only 8.1% (35/431) of PRHOs admitted to smoking. More males 21 (10.3%) than females 14 (6.1%) (NS) smoked. The average cigarette consumption amongst smokers was 9.3 cigarettes per day.

There was no relationship between those smoking and those with OSI scores comparable with patients with psycho-neurotic disorders for either physical or mental ill-health.

5.16.2 Alcohol

90% of PRHO's consumed alcohol. The alcohol consumption of respondents is shown in Figure 87. There were no significant differences in alcohol consumption between this group of respondents and WM PRHOs in 1993.

Figure 87 Alcohol consumption of respondents	
Males	n (%)
None	20 (10.9)
1-21 units per week	122 (60.1)
>21 units per week	61 (30.0)
Mean 17.5 units per week ***	
Median 156.0 units per week	
Females	n (%)
None	23 (10.1)
1-14 units per week	143 (63.0)
>14 units per week	61 (26.9)
Mean 10.39 units per week	
Median 10.00 units per week	
** t-test, p<0.001	

Males consumed significantly more alcohol (t-test $p < 0.001$) than females but were no more likely to drink in excess of the recommended amount.¹⁰⁴

There was no relationship between alcohol consumption in excess of the recommended amounts and those with OSI scores comparable with patients with psycho-neurotic disorders for either physical or mental ill-health.

5.16.3 Exercise

46.2% (199/431) of respondents admitted to taking less than one hour of vigorous exercise outside of the work place per week. There was no difference between the sexes in the amount of exercise undertaken.

There was no relationship between those taking less than one hours exercise per week and those with OSI scores comparable with patients with psycho-neurotic disorders for either physical or mental ill-health.

5.16.4 Changes in Coping Behaviours

Approximately half of smokers reported an increase in tobacco consumption, and 82% (351/428) of respondents stated that the amount of exercise undertaken had fallen between graduation and the second pre-registration job. Changes in alcohol consumption were slightly more complex with significantly (χ^2 , $p < 0.01$) more women than men reporting an increase in consumption. See Figure 88 for details.

Figure 88 Change in smoking, drinking and exercise habits between graduation and second house job

	Alcohol			Smoking			Exercise		
	Increased	Decreased	Stayed the same	Increased	Decreased	Stayed the same	Increased	Decreased	Stayed the same
Male	72/182	35/182	75/182	7/21	5/21	9/21	10/203	165/203	28/203
Female	112/205	35/205	58/205	8/14	3/14	3/14	10/225	186/225	29/225

5.17 Results of the Occupational Stress Indicator

5.17.1 Job satisfaction

There were no significant differences between the scores for job satisfaction for male and female PRHOs (Figure 89).

5.17.2 Mental and Physical Ill-health

Female PRHOs had significantly higher scores for both mental and physical ill-health than male PRHOs. These results are shown in Figure 89.

Individuals with clinically significant mental health problems, so called “cases”, can be identified by comparing their scores with the scores of patients with psycho-neurotic disorders. The critical scores for “caseness” were identified as being 76.97 or above for mental ill-health, and 45.39 or above for physical ill-health. ¹⁰⁵ 52 PRHOs (12.4%) could be classified as “cases” for mental ill-health using these criteria, and 43 (10.1%) on the basis of their physical health scores. Fourteen individuals were classified as “cases” on both counts (9 males and 9 females). More females than males met the criteria for “caseness”, but differences were not significant (Figure 89). A significantly lower proportion were “cases” for physical ill health in 1994 compared with PRHOs in the WM in 1993 (10.1% vs. 16.7% χ^2 , $p < 0.05$).

There were no significant differences in job satisfaction and mental or physical ill-health between the Caucasians and non-Caucasians.

Job satisfaction was significantly negatively associated with mental ill-health ($r = -0.43$ $p < 0.001$) and physical ill-health ($r = -0.38$, $p < 0.001$).

Figure 89 Results of OSI			
	Total Mean (sd.) (n=404-428)	Males Mean (sd.) (n=186-202)	Females Mean (sd.) (n=218-227)
Achievement value and growth	19.89 (4.68)	20.11 (4.81)	19.70 (4.56)
Job itself	14.06 (3.18)	13.78 (3.32)	14.31 (3.04)
Organisational structure and design	14.89 (3.91)	14.76 (3.94)	15.00 (3.88)
Organisational processes	12.79 (3.80)	12.93 (3.91)	12.66 (3.71)
Personal relationships	10.67 (2.53)	10.48 (2.60)	10.84 (2.45)
Total job satisfaction	72.18 (15.53)	71.80 (16.05)	72.50 (15.16)
Mental ill-health (Number of "cases")	60.62 (13.88) (52)	57.66 (14.72) *** (21)	63.23 (12.57) (31)
Physical ill-health (Number of "cases")	33.18 (9.63) (43)	31.32 (10.12) *** (18)	34.85 (8.87) (25)
* p<0.001 (t test)			

5.17.3 Comparison with normative data

There was no significant difference in score for job satisfaction and mental and physical ill health between the survey population and PRHO's survey in the WM in 1993. PRHOs had significantly lower scores for all aspects of job satisfaction, and significantly higher scores for mental and physical ill-health when compared with a small sample (n = 40) of junior doctors of all grades, and non health care workers (Figure 90).

Figure 90 Comparison with normative data				
	Survey (n = 404-428)	Junior Doctors (n = 40)	Non health care workers (n = 6326)	PRHO WM 1993 (n = 186-193)
Achievement value and growth (n=427)	19.89 (4.68)	22.78 (4.44) ***	21.66 (5.74) ***	19.36 (4.18)
Job itself (n=420)	14.06 (3.18)	15.84 (2.39) ***	16.34 (3.25) ***	13.90 (2.80)
Organisational structure and design (n=419)	14.89 (3.91)	17.27 (3.02) ***	16.73 (4.17) ***	14.92 (3.24)
Organisational processes (n=428)	12.79 (3.80)	15.49 (2.87) ***	15.54 (3.78) ***	12.89 (3.51)
Personal relationships (n=422)	10.67 (2.53)	11.84 (1.98) ***	11.78 (2.51) ***	10.79 (2.37)
Total job satisfaction (n=404)	72.18 (15.53)	83.22 (11.22) ***	81.76 (16.64) ***	71.86 (12.99)
Mental ill-health (n=421)	60.62 (13.88)	55.30 (12.25) **	56.24 (12.25) ***	61.50 (14.31)
Physical ill-health (n = 427)	33.18 (9.63)	28.35 (8.29) ***	29.69 (9.79) ***	33.87 (10.97)
** p<0.01 ***p<0.001 (t test)				

5.18 Comparison of OSI Scores by Region

The means scores of PRHO's in each Region were compared with each other using a one-way Analysis of Variance (ANOVA). No significant main effects were found, however inter-group comparison showed that PRHO's based in Mid Trent had significantly greater satisfaction with the job itself than PRHO's based in Oxford Region. See Figure 91.

Figure 91 OSI scores across Regions - Job Satisfaction & Mental & Physical Health			
OSI Variable	F Ratio	Significance (p) (ANOVA)	Differences Tukey's p<0.05
Achievement/value growth	0.55 (df = 4,422)	NS	ND
The job itself	2.35 (df = 4,415)	NS	Nott > Oxd
Organisational design & Structure	0.77 (df = 4,414)	NS	ND
Organisational processes	0.37 (df = 4, 423)	NS	ND
Personal Relationships	1.08 (df = 4,417)	NS	ND
Total Job Satisfaction	0.83 (df = 4,391)	NS	ND
Mental Ill Health	0.13 (df = 4,416)	NS	ND
Physical Ill Health	1.22 (df = 4,422)	NS	ND
NS = not significant		Nott = PRHOs in mid Trent	
ND = no difference		Ox = PRHOs in Oxford	

5.19 Comparison of Regional OSI Scores with Normative Data

5.19.1 West Midlands

PRHO's in the West Midlands in 1994 scored similarly to a sample of PRHO's surveyed in the WM in 1993. However they scored significantly worse for job satisfaction and for physical and mental ill health than a small sample of junior doctors and a large sample of non-health care workers. See Figure 92.

OSI Variable	PRHO WM 1994 (n = 173- 183)	PRHO WM 1993 (n=186-193)	Junior Doctors (n = 40)	Non health care workers (n=6326)
Achievement value and growth	19.88 (5.0)	19.36 (4.18)	22.78 (4.44) ***	21.66 (5.74) ***
Job itself	14.00 (2.94)	13.90 (2.80)	15.84 (2.39) ***	16.34 (3.25) ***
Organisational Structure and Design	14.73 (4.27)	14.92 (3.24)	17.27 (3.02) ***	16.73 (4.17)***
Organisational Processes	12.70 (3.98)	12.89 (3.51)	15.49 (2.87) ***	15.54 (3.78) ***
Personal Relationships	10.49 (2.60)	10.79 (2.37)	11.84 (1.98) ***	11.78 (2.51) ***
Total Job Satisfaction	71.49 (16.62)	71.86 (12.99)	83.22 (11.22) ***	81.76 (16.64) ***
Mental Ill Health	60.29 (14.43)	61.50 (14.31)	55.30 (12.25) *	56.54 (12.25) ***
Physical Ill Health	33.43 (9.87)	33.87 (10.97)	28.35 (8.29) ***	29.69 (9.79) ***
* p<0.05 ** p<0.01 *** p<0.001				

5.19.2 North Trent

PRHO's from North Trent reported similar scores for job and well being as PRHO's surveyed in the WM in 1993. However, they reported significantly worse job satisfaction and greater mental and physical ill health than a small sample of junior doctors and a large sample of non-health care workers. See Figure 93.

Figure 93 Comparison of PRHOs in North Trent with Normative Data				
OSI Variable	PRHO Sheffield 1994 (n=62-65)	PRHO WM 1993 (n=186-193)	Junior Doctors (n = 40)	Non health care workers (n=6326)
Achievement value & Growth	20.09 (4.33)	19.36 (4.18)	22.78 (4.44) **	21.66 (5.74) **
Job Itself	14.22 (2.95)	13.90 (2.80)	15.84 (2.39) ***	16.34 (3.25) ***
Organisational Structure and Design	15.41 (4.08)	14.92 (3.24)	17.27 (3.02) **	16.73 (4.17) *
Organisational Processes	13.22 (3.89)	12.89 (3.51)	15.49 (2.87) ***	15.54 (3.78) ***
Personal Relationships	10.95 (2.60)	10.79 (2.37)	11.84 (1.98) *	11.78 (2.51) *
Total Job Satisfaction	74.03 (15.58)	71.86 (12.99)	83.22 (11.22) ***	81.76 (16.64) ***
Mental Health Ill	61.00 (14.69)	61.50 (14.31)	55.30 (12.25) **	56.54 (12.25) *
Physical Ill Health	35.20 (9.91)	33.87 (10.97)	28.35 (8.29) ***	29.69 (9.79) ***
* p<0.05 **p<0.01 ***p<0.001				

5.19.3 South West Region

PRHO's in the South West Region reported similar levels of job satisfaction and well being as the PRHO's surveyed in the WM in 1993. However the PRHO's had significantly less job satisfaction and mental and physical health than a small sample of junior doctors and a large sample of non-health care workers. See Figure 94.

Figure 94 Comparison of PRHOs in South West Region with Normative Data				
OSI Variable	PRHO Bristol 1994 (n=89-95)	PRHO WM 1993 (n=186-193)	Junior Doctors (n = 40)	Non health care workers (n=6326)
Achievement Value & Growth	19.40 (4.28)	19.36 (4.18)	22.78 (4.44) ***	21.66 (5.74) ***
Job Itself	13.49 (3.04)	13.90 (2.80)	15.84 (2.39) ***	16.34 (3.25) ***
Organisational Structure & Design	14.64 (3.34)	14.92 (3.24)	17.27 (3.02) ***	16.73 (4.17) ***
Organisational Processes	12.65 (3.71)	12.89 (3.51)	15.49 (2.87) ***	15.54 (3.78) ***
Personal Relationships	10.51 (2.20)	10.79 (2.37)	11.84 (1.98) ***	11.78 (2.51) ***
Total Job Satisfaction	70.79 (13.59)	71.86 (12.99)	83.22 (11.22) ***	81.76 (16.64) ***
Mental Ill Health	61.44 (12.26)	61.50 (14.31)	55.30 (12.25) **	56.54 (12.25) ***
Physical Ill Health	32.25 (9.10)	33.87 (10.97)	28.35 (8.29) *	29.69 (9.79) **
* p<0.05 ** p<0.01 *** p<0.001				

5.19.4 Mid Trent

The Mid Trent PRHO's reported significantly greater satisfaction within the job itself than reported for PRHO's in the WM in 1993. They also reported less satisfaction with certain aspects of their work and reported worse mental and physical ill health than another sample of junior doctors and non-health care workers. See Figure 95.

Figure 95 Comparison of PRHOs in Mid Trent with Normative Data				
OSI Variable	PRHO Nottingham 1994 (n=43-46)	PRHO WM 1993 (n=186-193)	Junior Doctors (n = 40)	Non health care workers (n=6326)
Achievement Value & Growth	20.59 (3.83)	19.36 (4.18)	22.78 (4.44) *	21.66 (5.74)
Job Itself	15.25 (3.03)	13.90 (2.80)**	15.84 (2.39)	16.34 (3.25) *
Organisational Structure & Design	15.49 (3.23)	14.92 (3.24)	17.27 (3.02) *	16.73 (4.17) **
Organisational Processes	13.00 (3.16)	12.89 (3.51)	15.49 (2.87) ***	15.54 (3.78) ***
Personal Relationships	11.22 (2.55)	10.79 (2.37)	11.84 (1.98)	11.78 (2.51)
Total Job Satisfaction	74.98 (13.67)	71.86 (12.99)	83.22 (11.22) **	81.76 (16.64) **
Mental Ill Health	60.87 (13.40)	61.50 (14.31)	55.30 (12.25) *	56.54 (12.25) *
Physical Ill Health	32.78 (9.41)	33.87 (10.97)	28.35 (8.29) *	29.69 (9.79) *
* p<0.05 ** p<0.01 *** p<0.001				

5.19.4 Oxford

The Oxford PRHO's reported similar levels of job satisfaction and mental and physical ill health compared with PRHO's surveyed in the WM in 1993. However they reported worse job satisfaction than another sample of junior doctors and non health care work. They also reported worse mental ill health than non-health care workers. See Figure 96.

Figure 96 Comparison of PRHOs in Oxford with Normative Data				
OSI Variable	PRHO Oxford 1994 (n=35-38)	PRHO WM 1993 (n=186-193)	Junior Doctors (n = 40)	Non health care workers (n=6326)
Achievement Value & Growth	19.69 (5.62)	19.36 (4.18)	22.78 (4.44) **	21.66 (5.74) *
Job Itself	14.05 (3.37)	13.90 (2.80)	15.84 (2.39) **	16.34 (3.25) ***
Organisational Structure and Design	14.59 (3.92)	14.92 (3.24)	17.27 (3.02) **	16.73 (4.17) ***
Organisational Processes	12.43 (3.95)	12.89 (3.51)	15.49 (2.87) ***	15.54 (3.78) ***
Personal Relationships	10.72 (2.78)	10.79 (2.37)	11.84 (1.98) *	11.78 (2.51) *
Total Job Satisfaction	72.20 (16.96)	71.86 (12.99)	83.22 (11.22) **	81.76 (16.64) ***
Mental Ill Health	60.08 (14.86)	61.50 (14.31)	55.30 (12.25)	56.54 (12.25) ***
Physical Ill Health	31.63 (9.78)	33.87 (10.97)	28.35 (8.29)	29.69 (9.79)
* p<0.05 ** p<0.01 *** p<0.001				

5.20 Multivariate analysis

Stepwise multiple regression analysis was used to determine the relationship between the dependent variables (total job satisfaction, mental ill-health and physical ill-health) and various independent variables (see appendix 8 for a detailed list of independent variables). Interaction between the dependent variables was not considered. In order to isolate optimal predictors the cut off point was determined by the criteria that the overall F ratio of the equation was significant and that the partial regression coefficient for the individual independent variable added to the equation was significant ($p < 0.05$) and explained at least 1% of the variance.

5.20.1 Job satisfaction

Nine variables were significant predictors of job satisfaction, accounting for 48% of the variance. The main predictor was the respondents' perceived job status at house officer level, accounting for 20% of the variance, i.e. the higher the status the greater the job satisfaction. Other predictors of job satisfaction are shown in Figure 97. Three variables entered the equation in a negative direction. This means that those who did not feel isolated at work, those who did not regret choosing a career in medicine and those who did not feel that their skills were under-utilised had greater job satisfaction.

Figure 97 Predictors of job satisfaction						
Dependent variable	Step	Independent variable	Beta	T Value	P	Adjusted r ²
Job satisfaction (High score = high satisfaction)	1	Job status at HO level	0.25	6.32	<0.001	0.20
	2	Isolated at work	-0.22	-5.63	<0.001	0.10
	3	Good support from boss	0.19	4.91	<0.001	0.07
	4	Regret choosing a career in medicine	-0.17	-4.40	<0.01	0.04
	5	Underutilisation of skills	-0.15	-3.98	<0.001	0.02
	6	Good support from management	0.12	3.27	<0.01	0.02
	7	Control of job	0.12	3.09	<0.01	0.01
	8	Mess facilities	0.12	3.03	<0.01	0.01
	9	Rate HO pay	0.10	2.62	<0.001	0.01
Total variance	F=40.21, p<0.001, df 370					48%

5.20.2 Mental and Physical ill-health

Eight variables were significant predictors of mental ill-health, accounting for 29% of the variance. This dependent variable was negatively polarised in the greater the score the worse the mental ill-health of the respondent. Showing regret for a career in medicine was the main predictor for poor mental ill-health are shown in Figure 98. It should be noted that control, commitment, adequacy of undergraduate training and support from boss (steps 5 and 8) all entered the equation in a negative direction e.g. a lack of adequate training/support resulted in poorer mental health.

Figure 98 Predictors of mental ill-health						
Dependent Variable	Step	Independent variable	Beta	T Value	P	Adjusted r ²
Mental ill-health (high score = poor mental health)	1	Regret choosing medicine as a career	0.23	5.16	<0.001	0.12
	2	Feeling isolated at work	0.12	2.78	<0.01	0.04
	3	Gender (female)	-0.20	-4.56	<0.001	0.04
	4	Pressure to study medicine	0.17	3.86	<0.001	0.02
	5	Adequacy of undergraduate training for role as PRHO	-0.14	-3.28	<0.01	0.03
	6	Quantity of work	0.13	3.01	<0.01	0.02
	7	Concern about litigation	0.12	2.71	<0.01	0.01
	8	Good support from boss	-0.12	-2.65	<0.01	0.01
Total variance	F=21.12, p <0.001, df = 387					29%

Seven variables were significant predictors of physical ill-health, accounting for 19% of the variance. The significant predictors of poor physical ill-health were similar to those for mental ill-health. Like mental ill-health, physical ill health was negatively polarised i.e. the greater the score the worse the physical ill health of the respondent. The main predictor was regret at choosing medicine as a career accounting for 10% of the variance. other predictors of poor physical ill-health are shown in Figure 99. It should be noted that support from boss (step 4) and feeling in control (step 7) lack of commitment, and lack

of control entered the equation in a negative direction i.e. resulted in poorer physical health.

Figure 99 Predictors of physical ill-health						
Dependent variable	Step	Independent variable	Beta	T Value	P	Adjusted r ²
Physical ill-health (high score = poor physical health)	1	Regret choosing medicine as a career	0.23	4.68	<0.001	0.10
	2	Gender (female)	-0.20	-4.41	<0.001	0.03
	3	Feeling isolated	0.12	2.67	<0.01	0.03
	4	Good support from boss	-0.10	-2.0	<0.05	0.01
	5	Quantity of work	0.11	2.30	<0.05	0.01
	6	Pressure to study medicine	0.11	2.25	<0.05	0.01
	7	Feel in control	-0.09	-1.98	<0.05	0.01
Total variance	F = 14.76, p<0.001, df=394					19%

Section 6 Discussion

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6.1 Response rate and biographical data

The response rate of 83.8% (WM PRHOs, 1993) and 77.9% (WM SHOs, 1994) is comparable with other similar studies,^{64,67,68,69} and the follow up surveys undertaken by Parkhouse.¹⁰⁶ However the absence of a 100% response rate means that the information obtained may be biased and may not be representative of the survey population. It is reported that:

“A poor response rate must constitute a dangerous failing, and if it does not rise above say 20 or 30 percent the failing is so critical as to make the survey results of little, if any value”.¹⁰⁷

The response rate of 58.9% for the multi region study was lower than reported for similar studies, and varied between the different regions. It was highest in the West Midlands (76.9%), where there was greatest compliance with the protocol by clinical tutors. It was lowest in Oxford (33.0%) where compliance was least good. Also in Oxford and the South West it was reported that other surveys had recently been conducted - questionnaire overload may therefore have been a contributory factor to the lower response rates. Finally, telephone recall by the Research Fellow was only undertaken in the West Midlands, and may have contributed to a higher response rate.

Although the majority of respondents to the first West Midlands survey were contacted for the follow up study, 2 individuals proved elusive. There may be a variety of reasons for this including, leaving the profession, ill-health, stress, or simply working overseas. A similar unpublished study by the author looking at stress in public health doctors revealed a total of 3 individuals who were non traceable. At least one of these individuals was on long term sick leave, possibly related to stress. It is therefore possible that the non traceable individuals in this study were suffering from similar, and had they been included in the study, might have altered the results.

The majority of respondents entered medical school immediately after A levels. Undergraduate medicine has a long training and students may therefore avoid taking a year out. Additionally some medical schools discriminate against older applicants, usually on the basis of the length of postgraduate training.²⁶ The proportion of male and female respondents was fairly consistent with that reported in the Statistical Bulletin for House Officers.¹⁰⁸

The majority of respondents came from a social class I or II background. This is in accordance with Allen's work on 1981 and 1986 qualifiers,^{19,102} and the social class mix reported by UCCA for 1991. About 8.5% of female PRHOs and 12% of male PRHOs came from manual labour backgrounds. This is similar to Allen's¹⁹ work where 10% of women and 11% of men came from such backgrounds. It is likely that the social mix will not improve as recent trends such as the introduction of student loans may discourage applicants from less well off backgrounds.

The proportion of respondents with doctor parents is similar to that reported elsewhere.^{19,102} That such a high proportion of respondents had doctor parents is often explained in terms of positive parental identification and greater access to educational opportunities.¹⁰⁹ However, reparation for emotional neglect may also provide part of the explanation, since medical parents spend less time with their children than other parents because of work commitments.
110,111

A fairly high proportion of respondents were Asian but other ethnic minorities were not well represented. This is consistent with Lowry²⁶ who reported that medical students from Asian backgrounds are over-represented in proportion to their numbers in the community, but that there is a dearth of applicants from African and Caribbean background. It is believed that Asian families encourage their children to obtain portable professional qualifications.²⁶

6.2 Influences and pressure to study medicine

In this section the term “influence” is taken to mean a positive unconscious motivation to do something. “Pressure” has been used in the sense of active persuasion, perhaps in the face of resistance.

PRHO respondents with parents who were doctors were significantly more likely to be influenced to study medicine than those whose parents were not doctors, (χ^2 , $p < 0.001$). Also 60% of those with doctor relatives (1st or 2nd degree) felt that their desire to study medicine had been influenced by this relationship to some degree. These results are consistent with Allen¹⁹ who reported that 60% of her sample who had medically qualified parents or relatives were influenced to study medicine by this relationship. Such findings may be explained by the increased exposure of such children to illness, ill people and helping people, resulting in them being more likely to enter a caring profession. A more psychological explanation is that these children, because of the demands upon their parents time of a career in medicine, receive less nurturing as children and seek to make up for this by entering a caring profession.¹¹²

PRHO respondents reported that schools influenced/pressured them into studying medicine. Allen¹⁹ reported that some schools appeared to pressure bright pupils into applying for medicine, as successful applicants were seen as acclaim for the school. It is possible that this was a factor for those who felt pressured by their school.

Parents were the main source of pressure on respondents' decisions to study medicine. However doctor-parents were less likely to pressure their children into studying medicine, although the difference was not significant. Doctor-parents were also more likely to ensure that their children had knowledge of the realities of a medical career. Thus it appears that parents who were doctors want to portray a realistic picture of medicine. It may even be that doctor-

parents, knowing what the job entails and the effect it has on lifestyle, do not want their children to be subjected to the same kind of pressures. Alternatively it may simply be that exposure to a parent who is a doctor provides a person with knowledge about the realities of medicine.

6.3 Careers advice prior to medical school

Despite having a strong desire to study medicine the respondents were on the whole inadequately informed.

Only about half the respondents received careers advice specific to medicine - fewer than that reported by Allen.¹⁰² However on a slightly more positive note, the respondents expressed greater knowledge than reported by Allen.¹⁹ Nearly all were aware of the length of undergraduate training, 40-54% were aware of the length of postgraduate training but only 21-35% were aware of the hours of work. Only 21-27% were aware of all three facts. Male PRHOs in 1993 were more knowledgeable than females as were respondents whose parents were doctors. There was no significant difference in knowledge of these issues between those who had and those who had not received careers advice at school. This suggests that schools should provide more detailed information to prospective doctors enabling them to make an informed choice.

Respondents whose parents were doctors had more comprehensive information about a medical career than those respondents whose parents were not doctors. This makes common sense as such children would have had greater access to this type of information.

Less than half of the PRHO respondents were able to spend time with a consultant or GP, and very small numbers had the opportunity to spend time with a house officer, prior to applying to medical school. Kelly²⁷ has recommended that school sixth formers should experience medicine prior to

applying to medical school. He believed that improving their knowledge of the realities of medicine would weed out individuals who might experience regret later on. These results would support his view, as those who were aware of the realities of a medical career showed less regret than others. Likewise Hale and Hudson⁸⁰ reported that doctors who came from medical backgrounds were better able to adapt to hospital life.

That male PRHOs in 1993 were more knowledgeable than females about a career in medicine and that females were more likely (not significant) to report that they had always wanted to be doctors, suggests that females perhaps had a greater vocation and either failed to seek information or chose not to understand its implications. Respondents whose parents were doctors also had more comprehensive information about a medical career than those respondents whose parents were not doctors. This makes common sense as such children would have had greater accessibility to this type of information.

6.4 Desire to study medicine

PRHOs expressed a strong desire to study medicine, females generally more so than males. Females are traditionally viewed as carers, and indeed the main reason given for studying medicine by female respondents was to work with people and help them. It is possible that before women had equal entry to medical school and the profession that they would possibly have chosen a career in nursing, but they can now compete (without prejudice?) for medical places.

Medicine is a vocational career and desire to become a doctor is something that has been reported to be developed at an early age.⁹² These findings are consistent with this, with over half reporting that they had decided to become a doctor by the age of 15, and this group reporting significantly less regrets than

other groups. About a quarter had never thought of studying anything other than medicine reflects the belief in medicine as a vocation.

16% of Allen's ¹⁹ 1966 male qualifiers are reported to have a weak desire to study medicine, and have entered the profession in order to meet family expectations. This is in line with these findings, where those who felt pressured exhibited less desire than non pressured respondents.

6.5 Reasons for studying medicine

Over two thirds of PRHO respondents studied medicine because they enjoyed working with people or wished to help people. Although obvious reasons for a career in a caring profession, these findings are encouraging and would appear to reflect a strong vocational spirit among respondents. Perhaps more worrying is the fact that a quarter of respondents had opted for medicine for less altruistic reasons - because they were good at science or because of issues such as respect, lifestyle and money. It is questionable whether any disillusionment or regret is partly due to respondents taking up medicine for these reasons, rather than more traditional, vocational reasons. Allen ¹⁹ believes this to be the case. Females were generally more likely to study medicine for caring type reasons whereas males were significantly more likely to study for less charitable reasons. Females are traditionally viewed as carers and thought to be empathetic, perhaps explaining their reasons for studying medicine, whereas males are perhaps seeking to fill their role as "providers" in their choices.

6.6 Leaving before graduation

35-45% of respondents contemplated leaving medical school prior to graduation. This may reflect the difficulties of undergraduate medical education, it being one of the more demanding of University subjects. Most

respondents contemplated leaving medicine in their third year. This may reflect an initial dislike of clinical medicine, or reflect disillusionment with their first experience the realities of being a doctor working the wards. A fairly high proportion contemplated leaving medicine at more than one stage in their undergraduate training. This may reflect disillusionment with a medical career, with the University system or poor career guidance. It should however be noted that a recent BMA cohort study has identified that the strength of desire to study medicine does weaken during the medical career, and this may be reflected in the number of individuals contemplating leaving Medical School.

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A new report by the BMA ¹¹⁴ reports that an effective careers service for doctors requires dedicated funding, long term planning, foresight and commitment to all parts of the medical profession. It has also reported that a lack of proper careers guidance could be one of the factors causing some universities to lose up to a third of their medical students. ¹¹⁵

Significantly fewer ($p < 0.05$) PRHO respondents in 1994 contemplated leaving medicine before graduation compared with PRHO's in the WM in 1993 (45.1% vs. 34.8%). This is a universal effect as PRHO's from the WM in 1994 reported lower levels compared with PRHO's in the WM in 1993 (36.1% vs. 45.1%). Why this is should be is unknown, although it may reflect changes such as the New Deal, economic factors such as unemployment, or even better selection of students.

The main reason for continuing studies was because respondents did not know what else to do, perhaps reflecting a lack of career guidance, or alternatively satisfaction with medicine as a subject but not as a career. Being unable to transfer for financial reasons was also a common reason. Medicine is at least a 5 year course and if someone decides that they are not suited to it as a career it may be difficult to secure funding to transfer to another course. Similarly

many people may be encouraged by family and medical school to qualify as a doctor before making any career decisions.

Many of the other reasons for continuing studies, for example “passed my exams,” could be interpreted as maladaptive/transient responses to stress. Indeed, contemplating leaving medicine was significantly associated with having to resit an exam. Contemplating leaving medicine before graduation was also significantly associated with regret at choosing medicine as a career. This indicates that dissatisfaction during the medical career has a detrimental effect on long term feelings about medicine. It may be that some who study medicine and become disillusioned during undergraduate training feel unable to change career paths and regret their decision forever. Mechanisms should be developed to allow these students who seriously dislike medicine in the undergraduate years to leave without their chances of studying for another career being affected, perhaps by providing due credit for the time spent at medical school against another degree course. Equal proportions rated their contemplation to leave as being serious, moderate or weak. This together with the association between desire to leave and regret suggests perhaps that those contemplating leaving medicine should be adequately counselled and perhaps encouraged out of medicine for their long term benefit.

6.7 Regretting medicine

Over half of the PRHO respondents regretted studying medicine, mainly because of its effect on the rest of their lives and the length of hours they were expected to work. A BMA cohort study of 1995 medical graduates¹¹⁶ reported that 58% of the cohort believes that medicine is a major commitment, but that doctors deserve a decent family life and adequate leisure time.

The proportion of PRHOs from the multi-region study expressing regret was lower than reported in 1993 for PRHO's in the WM (55.7% vs. 62.6%). This may reflect changes in conditions of work brought about by the New Deal.³⁰

A high proportion of SHOs (64%) continued to regret choosing a career in medicine. Issues relating to unfavourable working conditions and effect on ones life and well-being were the main reasons for regret. This level of regret is similar to that reported by Allen ¹⁹ for SHOs in her cohort (65%). The reasons given for regret are also consistent with Allen's work, in which fatigue, exhaustion, long hours and responsibility were major causes of regret. The New Deal ³⁰ recommends the need to improve such conditions to prevent disillusionment and possible doctor wastage, it would appear from these results that implementing the New Deal is not progressing as quickly as the need for it calls.

On a positive note, significantly fewer SHOs reported lack of time for patient care, the training being too long and the lack of job satisfaction for reasons of regret in 1994 than as PRHOs in 1993. This is probably a reflection of the different roles of PRHOs and SHOs. The PRHO's role has been likened to a "dogsbody" role ²⁰ where doctors carry out repetitive clerical/administrative duties, leaving little time for patient care, however these results suggest that this situation improves in the SHO grade. Differences in the length of training being a reason for regret between 1993 and 1994 could be attributed to PRHOs having an unrealistic view of the length of time required for adequate training, or alternatively it may simply be that as the SHOs were slightly nearer the end of their medical training than the PRHOs, they may not consider it such an important factor for regret. That lack of job satisfaction was a less important reason for regret in 1994 compared with 1993 is consistent with the finding that the SHOs reported significantly more job satisfaction than when PRHOs. This improvement in job satisfaction with age (seniority) has also been reported elsewhere. ^{43,44} That stress was a significantly more important reason for regret in 1994 than in 1993 also probably reflects changes in roles. For example, the SHOs have more responsibility than PRHOs, but have only one years extra experience, they are now able to discharge people (or not admit them), and must take part in outpatient clinics.

Having a strong desire to study medicine and strong vocation (i.e. did not contemplate another career) appears to protect against regret (multi region study), as does being a child of a doctor, possibly because such children have realistic views and expectations of a medical career. Respondents who were knowledgeable about the length of postgraduate training and the PRHO's working hours also showed less regret (all PRHOs). This again indicates the importance of students having a realistic view of medicine before they embark on a career as a doctor. In order to protect the individual, and indeed the medical workforce, it may be worthwhile determining such issues among medical school applicants, although many other issues would also need to be considered.¹¹⁷

6.7.1 Women and men with regrets

Significantly more females than males regretted studying medicine because of the responsibility. This is consistent with the finding that significantly more females worry about litigation than males, and may be related to the issue of self confidence.

That more females than males regret their decision to study medicine, has also been reported by Allen.¹⁹ The females were more likely to experience regret because of interference with the rest of their lives and because of responsibility than the males. Combining a medical career with a family is reported to be difficult, especially for women who usually take on the responsibility for domestic commitments. Allen reported that most 1984 women qualifiers were particularly critical of the intolerable demands made by a medical career on spare time and family life.¹⁹

It would also appear that the women study medicine for the "caring" type reasons but do not obtain information about the realities of a career in medicine. The regret they experience may be a reflection of a general rose tinted view of medicine or a reflection of the realities of the difficulties that a career in medicine presents to women.² The latter appears the most likely

explanation as significantly more females than males regretted studying medicine because of the havoc it plays with the rest of their lives. It is reported that female doctors have additional stressors to male doctors. However, it appears that it is the conflict between work and personal life which is the main additional source of stress in females.^{19,78} The fact that more females than males regret their decision to study medicine, despite having an equal or greater desire at entry to medical school, has also been reported by Allen.^{19,102} Additionally women are generally more empathic than their male colleagues and Firth-Cozens has reported that such people are more likely to blame themselves when things go wrong, and are therefore more likely to experience regret.^{64,118}

6.7.2 Regret and ill-health

Those experiencing regret were significantly more likely to have scores for mental and physical ill-health that matched or exceeded those obtained for patients with psychoneurotic disorders at both PRHO and SHO level. It is reasonable to assume that such people would be unhappy and would perhaps feel trapped by medicine, and unable for whatever reason to pursue a different career option.

6.8 Studying medicine a second time around

Despite a high proportion of respondents reporting some regret at pursuing a career in medicine, only 12-22% stated that they would not, if they had their time again, study medicine. This difference may reflect a transient response to regret because of the working conditions placed upon the young doctors. Most gave more than one reason for not studying medicine if they had their time again. This suggests that disillusionment with a career in medicine is brought about by a cumulative effect of several factors of dissatisfaction rather than one particular issue.

Similar numbers of SHOs in 1994 reported not wishing to study medicine second time around, as they did as PRHOs in 1993. Most gave more than one reason for this suggesting that disillusionment with a career in medicine is brought about by a cumulative effect of several factors of dissatisfaction rather than one particular issue. Only about a third of those reporting regret reported that they would not study medicine if they had their time again. This may reflect a transient response to regret because of the working conditions placed upon the young doctors.

Fewer PRHOs in 1994 reported that they would not study medicine if they had their time again (12.2% vs. 17.9%, NS) compared with PRHO's in the WM in 1993. This is consistent with fewer explaining regret and again may reflect the improvements made to working conditions.

6.9 Leaving medicine

82-91% of respondents were intending to pursue a career in medicine beyond SHO level. This compares with the estimated 18-25% of doctors leaving the main public sector within 5 years of graduation.²⁸

The number of respondents reporting an intention to leave medicine is higher than that reported elsewhere. Parkhouse¹⁰⁶ estimates that 0.2% of 1974 qualifiers are in non medical employment, Lambert *et al* reported that 0.6% of their cohort of 1983 qualifiers within the UK,¹¹⁹ and 1.4% of 1993 qualifiers¹²⁰ were engaged in non-medical employment, and Nicholl suggests 1%.¹²¹ However, both these authors look at outcomes, i.e. in medical practice or not. This study asks respondents to state their intention to leave practice, which may be very different to actual outcome. However, on the basis of these 20 people who had reported taking steps to leaving the profession in 1993, we know that one (0.5%) has definitely ceased practising, and possibly a further 2 also ceased practice (a total of 1.5%). This is within the range quoted by Nicholls,¹²¹

and Parkhouse,¹⁰⁶ although it should be noted that the value we report is based on 2 years of postgraduate work, not the longer periods of time post-graduation reported by Nicholls and Parkhouse (up to 12 years).

Those respondents who had taken steps to leave clinical medicine were planning careers in a variety of different fields; only a few were considering work related in the broadest sense to medicine. This is consistent with Allen's work^{19,102} and may reflect the diversity of doctors' skills and ability. That many gave more than one career alternative suggests that they were undecided and unsure of what else to do. Career counselling could do much to help them decide (and may even encourage them to find their niche in medicine), especially when less than half of respondents had received career guidance in their undergraduate or pre-registration years. Dr Elizabeth Shaw, Chairman of the BMA's career progress of doctors committee reported that "Career guidance is all about getting the right doctor into the right job at the right time."¹¹⁵

The proportion of SHOs who had taken steps to leave medicine was lower than reported for the group as PRHO's in 1993 (6.0% vs. 10.3%). This finding is consistent with fewer reporting regret and a lower proportion reporting that they would not study medicine if they had their time again. Additionally it is possible that some who intended to leave in 1993 had resolved any career difficulties which they had been facing. However 6 people (54.5%) who intended to leave in 1993 still planned to do so in 1994. These people are in obvious need of career guidance.

Poor working conditions and long hours of work were the main reasons for causing respondents to consider leaving medicine at PRHO level. Indeed, as the New Deal³⁰ recommends the need to improve such conditions to prevent disillusionment and possible doctor wastage. Females were significantly more likely to cite long hours as a reason to consider leaving medicine at PRHO level than males. This probably reflects the difficulties faced by females in pursuing a

medical career, and the mismatch between conditions of work and family/domestic commitments.

6.10 A career in medicine

Around half of the PRHOs had received careers advice whilst in post. According to the WM Postgraduate Dean, all PRHOs should receive career counselling by clinical tutors prior to full registration.¹²² It is possible that this is a service which is not widely advertised or alternatively that some PRHOs do not wish to discuss such issues with clinical tutors. These results would support the latter as nearly half of respondents believed that clinical tutors were not the ideal people for giving careers advice.

General practice was the most favoured career choice for all groups, with significantly more females opting for this than males. This is consistent with other reports.^{4,19,78,102,116} General practice is generally regarded as being more suitable to female lifestyle and domestic commitments, allowing them to accommodate their role as mother, and wife, more easily than in hospital practice. This is reflected in the reasons given by females for selecting their particular career choices - they were more likely than males to base their choices on social reasons. It is easier to arrange work in general practice on a sessional or day-time basis and to allow for part-time work. It is also reported that general practice is one of the specialties in which women are most likely to reach senior positions.¹⁹ Hale and Hudson⁸⁰ reported that some females chose general practice as their career not because they have matched the demands of the GP's work to their own inclinations and competencies, but because general practice represents a resolution of stress in their lives between family and career.

Males were generally more likely than females to chose their career path because of interest in the subject (significantly so at PRHO level). This reflects the fact that women look at the practical feasibility of combining work and family life, while men focus on career alone. That significantly more males than females

were planning a career in surgery supports this finding. This is consistent with other reports.^{19,64,102} Surgery is a male dominated specialty with women accounting for only 4% of consultants in surgery.¹²³ Many females may believe that surgery is an unsuitable career option for females planning a family. Allen¹⁹ reported that 96% of doctors she surveyed thought that surgery was a specialty in which women were less likely to reach senior positions, because of the degree of commitment required, competitiveness and prejudice from male surgeons. One 1976 woman qualifier in Allen's survey stated on the issue of women in surgery:

“They (women) are less likely to do well in any branch of surgery because they have to sacrifice what is a normal social life for a woman. Every woman I know in general surgery has not had a normal social life.”¹⁰²

The career intentions of the PRHOs are compared with career intentions of other doctors whilst in their pre-registration year in Figure 100.

The proportion of the PRHOs in 1994 planning a career in general practice compared favourably with Lambert's qualifiers¹¹⁹ but was slightly lower than reported for PRHO's in the WM in 1993 and compared with Allen's sample of 1986 graduates at registration (39%) and Parkhouse's qualifiers.¹⁰⁶ There have been anecdotal reports of fewer people applying for general practice over the last few years because of political changes in the NHS (the introduction of GP contracts, fundholding, care in the community etc.) or changes in career training or positive improvements in hospital careers. These results would appear to confirm this, although this study looked at decisions at pre-registration level (at least one month into the second house job) and Allen's work looked at decisions made after registration. Notable differences between 1993 qualifiers and PRHO's 1994 are seen in the proportions planning a career in all specialties except obstetrics and gynaecology. However a higher proportion of PRHOs in 1994 were undecided on their career choice and hospital specialty compared

with the 1993 qualifiers (see Figure 50). PRHO's 1993 reported greater preference for psychiatry than in 1994 but in 1994 more planned a career in medicine and surgery.

Figure 100 Career intention during the pre-registration year			
Career Intention	Multi region study (%) n=433	PRHO's WM n=194	1993 Qualifiers ¹²⁰ (%)
Hospital- no speciality	8.1	11.9	
General Practice	27.0	31.4	25.8
Hospital -surgery	13.6	9.8	19.5
Hospital -medicine	16.2	10.3	21.5
Psychiatry	2.8	7.2	4.2
Paediatrics	3.9	3.1	6.3
Obstetrics and Gynaecology	4.2	4.1	4.9
Clinical support services	6.7	5.6	12.5
Non-medical Direction	0.7	1.5	1.4
Other medical	1.6	0.5	2.8
Don't know	15.2	14.4	1.3

About 10% of PRHO respondents who had planned a hospital based specialty believed that they would be unable to follow their planned career mainly because of the demands on themselves and family. This fell to less than 4% of the SHOs. The main alternative career path for these people who anticipated difficulty was general practice which was obviously viewed as an easier (less demanding) option. In contrast to Parkhouse's work,^{106,124} women junior doctors were no more likely than men to pursue a second choice career. However, the most usually stated second choice was that of general practice,

and significantly more women than men had already identified this as their first choice career. It is possible that women are identifying general practice as a suitable career for pragmatic reasons, such as working part-time, combining family and career, and consequently not seeing it as an alternative career path. Reasons for considering a less preferred specialty were mainly based on competition and hard work. Competition means that there is an ever increasing need to be successful at professional medical examinations in order to progress in ones career. Such examinations are difficult to pass, not only because of their academic content, but because of the lack of time to study. Allen ¹⁹ reported that difficulty in passing higher examinations was an important constraint on careers. It is perhaps therefore unsurprising that “second best” career choices tend to be less competitive specialities, with less emphasis on obtaining examinations, or undertaking research.

Less than a half of respondents were aware of the possibility of part-time training - indeed there was no significant difference in knowledge between PRHOs in 1993 and PRHOs in 1994. Women continue to be more prepared to work part-time than men. This is in accordance with other work, ^{19,119,120} and would again fit in with the need for women to take into account family and domestic commitments when planning a career. Considering that such a high proportion of respondents (especially women) would be prepared to work part time but that few are aware of the options available to them suggests a lack of motivation to find information about such details or alternatively there may be a reluctance on part of the medical profession to inform people. Allen ¹⁹ reported evidence of lack of publicity, information and guidance or advice about flexible training opportunities. Also Allen reported a perception that part-time training was thought of as lower status than full-time training and not to be contemplated unless the only possible option.

There was a significant reduction in the number of respondents who planned a career in a hospital clinical specialty between 1993 and 1994. This reduction was compensated by an increase in the numbers entering other medical specialties.

Parkhouse¹⁰⁶ reported similar observations in changes in career choice from the pre-registration year to five years thereafter.

It is possible that respondents were turning away from hospital clinical specialties for a number of reasons including conditions of work, interference with family/social life, competition and examination pressures. Parkhouse¹⁰⁶ reported postgraduate experience, awareness of promotion prospects and problems of self-appraisal as the most common factors for a change in career choice from pre-registration house officer level. Altered domestic circumstances featured less prominently as a reason and careers advice and altered financial circumstances had comparatively little influence. However the changes between 1993 and 1994 may also be a reflection of the respondents not having made a firm choice in 1993. Parkhouse¹⁰⁶ reports that:

“When career choice is still indefinite as it often is as the pre-registration stage, the preferences put down by respondents may reflect the job they are doing at the time. Change of choice may be little more than a shift from one inchoate vision to another, or from one exciting and rewarding specialty to the next”.

Unsurprisingly fewer SHOs were undecided about their choice of career in 1994 (NS) compared to when they were PRHOs. Time and greater exposure to other specialties would have enabled respondents to make an informed choice. Also in medicine one is expected to decide on a career path fairly early in ones medical career so as to reach a certain grade in that specialty within a certain time. The medical career structure leaves little room for change once a career path is embarked and doing so is often frowned upon by seniors as an indication of lack of commitment.

6.11 Medicine and the family

That over 60-75% of respondents believed that a career in medicine was most suited to males and that it was easier for males to combine a career with a family is consistent with Allen.¹⁹ She emphasised the difficulties faced by women in pursuing a medical career. It is also reported that female doctors are less apt to marry, have a higher divorce rate and have fewer children than male doctors.¹²⁵

The conflict between family and work commitments are reported not to be of the women's own making,¹²⁶ rather that it stems from the predicament of working in a profession organised as if staffed entirely by men in a society where working women are still expected to hold the major responsibility for child and husband care. Indeed Allen¹⁹ reported that women doctors see the issue of child rearing as a problem for women rather than parents. That men were thought to progress in their careers faster than females could be a factor of prejudice against promoting females and/or a result of time taken off early in their career to raise children.

The problems of female doctors combining family and career could be aided by increasing the number of part-time posts or by offering some other provision within the NHS which allows women who wish to combine medicine with marriage and children to do so without damaging the standards of either.

Changing jobs in order to progress in medicine was viewed as a source of stress by the majority of respondents in all surveys. Junior doctors are generally employed on short term contracts ranging from 6 months to 2 years, although COPMED has recently suggested that pre-registration house jobs could be altered to three, four month jobs allowing inclusion of General Practice. As a result there is almost a constant stressor of job insecurity which involves not only the need to seek new employment but also a need to impress

consultants in order to gain good references to secure the next job as well as the day to day stress of learning the ropes in a new hospital, or for a new boss. In addition frequent job changes weakens the social support available to doctors, an important factor in stress management. It is also reported that there is reluctance by some health authorities to reimburse removal and associated expenses which further exacerbates the stress experienced in such life events as moving home.² The need to constantly change jobs and the scramble involved in doing so is thought to not only affect the doctors concerned but also their ability to do a “good” job.

“You start one job and in two to three weeks you have to start looking for the next. It's both demoralising and not good for the patients I would never go back to hospital medicine”

*GP trainee*¹⁰²

It was generally believed that men progress in their careers in medicine faster than women. There are several possible explanations for this including prejudice from promoting females, constraints of marriage and husband's career, family and child care, breaks from work for domestic commitments, geographical mobility, hours and conditions of service and part-time training and employment.¹⁹

6.12 How you view medicine

It is perhaps to be expected that PRHOs rate job status, job satisfaction and pay accorded to PRHOs as lower rather than higher. The lower scores for job status and satisfaction would indicate low morale. The low scores for job satisfaction corroborate the findings from the OSI. That the respondents rated their level of pay low to moderate is probably a reflection of the hours they have to work and their rate of pay for additional duty hours. It may also reflect differences they perceive in their pay and that of peers working in other professions.

Interestingly, given the above perception, both consultants and GPs are perceived by PRHOs to have much the same job satisfaction and job status. The majority of respondents in both instances scoring 4,5 or 6 ("moderately to very high"). PRHOs, on the other hand, scored the reverse. The GPs and consultants have reached the top of their chosen career ladder and are perceived to have high job status and satisfaction. The PRHOs on the other hand are at the bottom of the ladder and see themselves with low status and lower satisfaction because of the work required of them. Dowling and Barrett²⁰ reported that many PRHOs see themselves in a "dogsbody role" in which they are required to carry out repetitive clerical and administrative tasks and act as "continuity people who make good the gaps in hospital services and ensure that the pace of admission is maintained."

These patterns continued in the SHO group, presumably due to a continued reflection of their position in the medical hierarchy and the fact that they are still on the whole regarded by senior staff as "another pair of hands".¹⁹

All respondents viewed GPs to be better paid than consultants. Since the basic GP and Consultant salaries are similar, this discrepancy probably reflects perceived value for money - consultants, possibly because the hospital based junior has more knowledge of what a consultant job entails, are considered to be less well paid than the GP for what he/she does.

6.13 Working as a junior doctor

The finding that all respondents believe morale to be only moderate is consistent with the findings of low job satisfaction and high levels of physical and mental ill-health reported by the OSI. It is consistent with the findings reported by Firth-Cozens,⁶⁴ Dowling and Barrett²⁰ and anecdotal reports.²³

Female PRHOs reported significantly worse morale than males, and a similar non significant trend appeared at SHO level. This is consistent with the reporting

that females had significantly worse mental and physical health than males. Other authors have reported that females have more stressors than males,^{2,78} a factor which may also affect their morale.

About 45% of PRHOs believed that they had too much work to do. This fell to 32.6% of SHOs. This is hardly surprising given the hours junior doctors are expected to work. In addition, 84-94% of PRHOs (falling to 71% of SHOs) believed that their skills were under-utilised. Dowling and Barrett²⁰ reported that the pre-registration year is dominated by excessive service work and that they are expected to carry out repetitive clerical and administrative tasks. Likewise another study¹²⁷ has confirmed that large parts of a house officers week are spent on routine tasks such as taking blood, filling in forms, arranging beds and filing laboratory reports. Dent *et al*¹²⁸ reported that 62% of house officers in their survey felt that they spent an excessive amount of time on non-medical tasks of no educational merit, and COPMED¹²⁹ has recommended the employment of technical staff such as phlebotomists to reduce routine work that is currently undertaken by junior doctors. Much is being done through the New Deal to improve this situation by redesigning jobs, delegating appropriate tasks and supporting the work of PRHOs. For example ensuring the provision of adequate clerical, administrative and technical support, the provision of computerised information and administration systems, appointment of bed managers, nursing practitioners and phlebotomists would help amend the situation.

That the proportion believing that their skills were under-utilised was lower as SHOs in 1994 compared with 1993 is a reflection of the different role/duties of the SHOs compared with PRHOs. However, that such a high proportion still felt that their skills were under-utilised is clearly a waste of resources. That female respondents were significantly less likely to report feeling underworked than males as SHOs is consistent with Allen¹⁹ who reported a locum in general practice saying:

“They (consultants) tended to favour women for junior posts because they’re more conscientious and work harder”.

Over 90% of the PRHOs felt part of a team. Team work can lead to greater efficiency and provides an infrastructure for the safe supervision of PRHOs. Medical students would benefit too from formal teaching in team building, on how to operate as a professional within an organisational environment, and on how to work co-operatively with other health professionals. The BMA cohort study¹¹⁶ reported that 96% of surveyed doctors agreed that many of the tasks currently carried out by doctors could be transferred to other appropriately trained professionals without detriment to patient care. However, few PRHOs feel part of a multi-disciplinary team, although this increased to nearly 50% of SHOs. This is a considerable improvement on this aspect of job practice compared to the same group as PRHOs and may reflect better integration, more experience, or better acceptance as part of a team (feeling as if they have something to contribute). Greater team work could result in greater efficiency as well as providing the infrastructure for the safe supervision of PRHOs.

About 95% of all respondents were committed to medicine, despite 25-30% being not entirely happy with their profession. This perhaps reflects the enormous dedication and vocation of these young doctors. Dowling and Barrett²⁰ also reported an enormous level of vocational commitment in the PRHOs they interviewed. This commitment is an asset for the NHS and encouraging in terms of patient care.

Most respondents reported good support from their consultant (boss) with about two thirds also reporting some form of feedback. Support and feedback are recognised as being important for the well-being and job satisfaction of the doctors. On the whole hospital managers were not supportive - a factor which was associated with low levels of job satisfaction. Managers should strive to make doctors feel valued and welcomed and recognise their work contribution towards the running of the hospital. They should also ensure that doctors at all

levels know what is required of them.^{130,131} The provision of pleasant working and living conditions, including hours of work and time off could go a long way to improve the situation and relations between the two groups. Interestingly SHOs considered nurses supportive, this giving foundation to the multi-disciplinary team spirit reported.

Two thirds of all respondents felt isolated at work. This may be a factor of the nomadic nature of junior doctors jobs, as six month is a very short time, especially in the first year of one's working life to develop strong working relationships with colleagues. Dowling and Barrett²⁰ also reported that PRHOs felt isolated from other members of the team possibly because they were ward based while more senior staff spent much of their time in outpatient departments or in operating theatres. Despite feeling isolated respondents reported a great sense of camaraderie with other doctors.

A minority of respondents did not feel in control of their work. There are several possible explanations for this ranging including individual factors, hospital policy and conflicting working policies of more senior medical staff.

Most PRHOs and SHOs felt that there was a scramble for jobs in order to advance a career in medicine. This reflects the competition in securing jobs within the UK, this is especially so in the more popular specialties. In addition very few SHOs believed that it would be easy to climb the career ladder in medicine. This is probably a realistic impression as getting to consultant or GP principal level requires hard work and examination success in the face of competition and unfavourable working conditions. Women believed the climb to be more difficult than males. This is consistent with their views about medicine and the family and probably reflects the constraints of domestic commitment, prejudice and inappropriate role models on their career development.

Over 90% of all respondents believed that being a doctor gave them security of employment. Although high it perhaps reflects current attitudes that you are no longer guaranteed any job for life, whilst previously doctors have always

considered to be “made for life”. Equally recent changes in employment practice within the NHS (with short term contracts becoming more common) may also influence this belief.

Nearly 90% of PRHOs and over 90% of SHOs were concerned to some degree about the possibility of litigation, with significantly more females than males being concerned about this issue. Claims against medical negligence in Britain are on the increase, possibly because of greater public awareness and public expectations following the Patients Charter. Massive compensation claims have been awarded in the USA and we are now witnessing similar in the UK. The possibility of litigation is real, and its impact on the well-being of doctors is enormous. It is not surprising therefore that so many young doctors should be concerned about the possibility of such action. That females were more concerned than males may be a reflection of them possessing less self confidence and esteem, or/and a reflection of female nature being more empathic and caring, i.e. not wanting to cause harm. Indeed Allen¹⁹ reported that women often blame themselves when things go wrong and complain politely, if at all.

Few respondents could report not feeling stressed. This is consistent with reports of high levels of stress in the medical profession.^{2,8,9,67,68,69,78,80}

The doctors reported significantly better job satisfaction at SHO level than at PRHO level. This is consistent with some of the results reported by the OSI section and also other work reporting an increase in job satisfaction with seniority.^{43,44}

6.14 You and your hours of work

The vast majority of PRHOs and SHOs worked an on-call rota system. It is possible that other work arrangements are not as compatible with the a junior doctors duties/role, or that this working arrangement is not satisfactory for this group of employees.

Significant proportions of PRHOs (approximately 20%) worked in excess of the number of hours recommended by the New Deal for an on-call period, although this improved for SHOs, where only 7% worked in excess of 56 hours. That there was no decrease in the average maximum on-call period for the two groups of PRHOs despite a twelve month time difference is disappointing and calls for the closer monitoring of working patterns of junior doctors by the Regional Task Force.

The differences observed between shift systems and effect on physical ill-health on PRHOs in 1993 may be a true difference. However the disproportionate numbers of people working the on-call system and small number working the others types of systems may influence the statistical significance. Other possible explanations for the findings would include factors related to differences in:

- the intensity of work
- variation in working patterns within the three systems of work e.g. some may work a 1 in 2 rota whilst others work a 1 in 4

However, neither the follow up study nor the multi-region study showed a similar relationship, so it would appear that the initial findings are not generalisable, probably due to the statistical effect of small numbers in both partial and full shift categories.

6.15 Hospital accommodation and facilities

When it is considered that junior doctors often work as many hours outside of normal working hours as within then it is clearly unacceptable that they do not have access to freshly prepared food. Furthermore it will not act to make juniors feel valued as people, nor improve their morale and job satisfaction. Dudley²⁵ stated :

“If you are in the front line and under stress it is not helpful to come back to base and fail to find the creature comforts that make life worth living”

The fact that many junior rely on eating snack foods such as sandwiches, pastries, take aways and crisps or chocolate is not in line with current dietary guidelines which stress the importance of low fat, low salt, high carbohydrate and high fibre diets.

It is pleasing that accommodation and mess facilities were rated as moderately good by all respondents. It has been suggested elsewhere that morale is positively correlated with decent mess facilities^{19,25,80} and the New Deal with its recommendations about mess facilities adds power to this. However, despite the overall moderately good standards of hospital accommodation reported, a significant minority of all respondents rated accommodation as very poor. The Regional Task Forces are responsible for monitoring standards and Royal Collages and Universities entitled to withdraw approval from posts where accommodation does not meet basic standards. A real threat of this may motivate the unit general managers in question to upgrade their facilities.

That a little over a quarter of the SHOs lived in hospital accommodation is consistent with Meek's reporting of 24% of SHOs living in hospital accommodation.¹¹

It is pleasing that information concerning juniors living conditions for WM Trusts e.g. car parking, meals, mess facilities is available though the WM Postgraduate Office, although medical students and juniors would benefit further from having this information distributed more widely.

6.16 Improvements to training

6.16.1 At undergraduate level

The medical undergraduate course is acknowledged as being demanding. However there is widespread agreement that the present curricula are grossly overcrowded with factual information which soon becomes out of date, and inhibits students from developing into creative critical thinkers and problem solvers.⁷³ In addition to this, these results would suggest that it is also inadequate in preparing medical students for their working role as doctors and for working within the NHS.

The majority of PRHOs felt that undergraduate training had not prepared them for the role of PRHO, mainly because of a lack of training in practical/clinical procedures. The lack of knowledge and experience of practical procedures is an old chestnut, reported by Dowling and Barrett²⁰ and Calman and Donaldson.¹³²

PRHOs also felt that undergraduate teaching ill prepared them for the realities of working within the NHS. Particularly lacking was information concerning the structure and politics of the NHS and self management issues such as time management, budgets etc. Similar issues relating to self management have also been identified by Calman and Donaldson¹³² as having room for improvement. Additionally, it is the author's experience that few medical students recognise just how political the NHS is, and fail to see the need to know about its structure.

The General Medical Council and Kings Fund are currently looking at the problems of British medical education and working to develop a better curriculum. Until changes in the curriculum are implemented it is suggested that PRHOs should undergo an induction/training course before taking their first job. This would help facilitate their transition from medical students to house officer and would provide revision of basic clinical skills and other useful information. Recently, Postgraduate Deans have taken on joint responsibility with Trusts for providing induction training, and now part fund junior posts. They can therefore withhold part of the salary costs of junior posts where Trusts fail to provide induction training, or fail in their other educational responsibilities.

6.16.2 At Pre-registration level

SHOs were not overly satisfied with their practical training at PRHO level. Dent *et al*¹²⁸ also reported that 62% of PRHOs in their survey felt that they spent an excessive amount of time on non medical tasks with no educational merit. It is interesting to note that this aspect of training continues to cause problems during the pre-registration year, a time of (supposedly) supervised training. Many respondents had no opportunity to learn practical procedures whilst others had no formal training, insufficient support and lack of time. If teaching is not considered important at undergraduate level, nor at pre-registration level, will it ever be considered important? Additionally, training is liable to worsen if general medical and general surgical training is shortened to 4 months each (with another 4 months in a chosen specialty) as suggested by COPMED.¹²⁹

Why training in medical jobs is better than in surgical jobs at PRHO level is an interesting question. Do medical firms see more patients requiring practical ward based procedures than surgical firms? Do surgical firms have more people queuing to have “first go” at the practical procedures? Is there less intermediate cover on medical firms, leaving the PRHO to do the work?

Whatever the explanation, surgical firms should aim to improve their training of PRHOs.

Consistent with these findings is Dowling and Barrett's ²⁰ report on PRHOs that there was:

- no recognition of PRHOs time spent in training in terms of a reduction in their service commitment or increased staffing levels
- no contractual recognition of time spent in training activities by PRHOs or the time needed to provide such training by consultants and other medical staff
- an unsupportive work environment, not conducive to learning.

Although, outside the scope of this work, researchers looking at SHO training in the London area suggest that training has improved over recent years, although the reason for this is not yet clear. ¹³³ It may be that training at all levels will improve as the New Deal ³⁰ continues to reduce intensity of work, and as Calman ¹³⁴ begins to take effect for Higher Specialist Training.

6.17 Career counselling

Most respondents wanted career counselling in their pre-registration year, and whilst working as an SHO. Despite the WM Postgraduate Dean stating that PRHOs should receive career guidance, this does not appear to be the case, or is not explicitly labelled as such. However, it is early in the career new graduates face the realities and responsibilities of a medical career and many face disillusionment with the pressures of hospital life. Career counselling at this stage in the doctors career is crucial as the medical career structure leaves little room for a change of heart once a specialty is embarked upon and the introduction of the new Higher Specialist Training Regulations ¹³⁴ ("Calman") will make the situation worse. Postgraduate Deans, clinical tutors and

supervising consultants or another appropriate or interested body should be trained for giving such advice.¹³⁵

Garrud¹³⁶ reported that his subjects thought that career advice on the following would be useful:

- balancing different variables in job choice (hours, preference, location, opportunities for part-time work etc.)
- implications of a break in normal career structure (such as working abroad or having a family)
- what experience and which posts would be most valuable or useful in their career
- long term prospects and options in different specialties.

6.18 Stress counselling

Stress counselling was deemed to be a good idea in the pre-registration year by about two thirds of respondents. This is consistent with a BMA News Review survey where 68% of respondents believed that a dedicated counselling service would be welcomed by the medical profession,¹³⁷ and recommendations from the Nuffield Provincial Hospitals Trust that independent bodies be create to oversee support services for doctors in distress.¹³⁸ Likewise Hale and Hudson⁸⁰ reported that half of their sample thought that pastoral counselling would be beneficial and Garrud¹³⁶ also reported that the perceived need for counselling in his study was high. Unfortunately the body of knowledge suggests that doctors are not even prepared to seek help for physical illness let alone psychological or mental ill-health, e.g. only one fifth of PRHOs are registered with a General Practitioner.^{139,140} The majority of respondents thought that stress counselling should be provided by a trained external counsellor, and Garrud¹³⁶ reported that such a counselling service should be independent of the consultant firm. Admitting difficulty to seniors is perceived to be undesirable and to have potentially detrimental effect on the individual e.g. in terms of references. Any support service should therefore be confidential and independent so as to meet

the concerns of the doctors. Such a support service (CONTACT) was established in the WM in 1995).

Although several other support services exist, e.g. National Sick Doctors Counselling Service, they could be criticised for dealing with extreme cases where fitness to continue practice is often in question. Effective preventative mechanisms and services for doctors who are ill, but not so ill that it affects their clinical competence needs investigating. In addition it is hypothesised that if mechanisms for staff support become standard and encouraged in undergraduate years then it is likely that doctors will continue to make use of such services throughout their medical career. Needless to say, a cultural change within the profession is required so that admission of difficulty or coping, or suffering from stress is viewed as a positive, even desirable quality, rather than a weakness in the individual. Such a counselling service should therefore be “seamless”, allowing students, juniors, seniors, hospital and community based doctors to access them.

A confidential 24 hour telephone counselling service for doctors is now provided by the BMA. This was set up in April 1996 on a 12 month trial basis, but will continue beyond April 1997.¹⁴¹ The promotion and provision of such a service will help raise awareness of such issues and perhaps help change others opinions of such problems.

6.19 Lifestyle and coping behaviours

Respondents were asked whether they drank alcohol or smoked, and if they did, whether their consumption of these drugs had increased since beginning work (PRHOs) or since becoming an SHO. These habits are well-recognised as behavioural responses to stress.

6.19.1 Smoking

Between 7 and 14% of junior doctors smoked. This is lower than that reported for the general population matched for age (38%),¹⁴³ but comparable with that reported for professional workers of all ages (13-14%).¹⁴³ This may reflect either better health awareness in this study group, or that they have taken on characteristics of professional groups such as the health promotion message to stop smoking.

A much higher proportion of males than females smoked. This is contrary to that reported for the professional workers (males 14%, females 13%)¹⁴³ and for medical students (males 12%, females 24%).¹⁴⁴ It is possible that female doctors in this group were more health conscious than the males.

Smoking was not associated with cases for mental and physical ill-health. This is contrary to the general belief that smoking is a behavioural response to stress. Could it be that smoking, in the short term at least, is an effective way of maintaining psychological well-being?

The low incidence of smoking is encouraging as it is regarded as a maladaptive coping mechanism which is positively associated with a number of life threatening diseases. Many private companies have developed health policies to control alcohol and tobacco consumption and to encourage exercise and healthy eating. Such initiatives could be adopted within the health care setting and incorporated into a stress prevention programme. Examples might include schemes to improve coping strategies through exercise, meditation, relaxation, Look after Yourself at work schemes and self help groups to deal with obesity, smoking and drinking.

6.19.2 Alcohol

The survey questionnaire did not attempt to give a precise measure of weekly alcohol consumption, rather to provide an estimate of alcohol intake in order to identify broad groups with different levels of consumption. Alcohol (at least publicly) is consumed in fairly standard quantities which can easily be converted into units. However it should be noted that such a method is not completely accurate. Drinks of the same type vary in alcohol content and there is a difficulty in accurately assessing amounts drunk when consumed away from a public setting. Average weekly consumption is also a difficult concept for those with irregular drinking patterns. It is also well recognised that self-reporting of alcohol intake and smoking habits tends to be underestimated. For example the General Household Survey (GHS)¹⁴² typically accounts for only two thirds of alcohol intake, so the proportions drinking in excess of recommended levels are likely to be higher than demonstrated here.

A summary of alcohol consumption is given in Figure 101. As can be seen, mean weekly alcohol consumption is fairly constant for males, with slightly more variability for females. The finding that men consume significantly more alcohol than females is consistent with other researchers,^{45,46,143} although Collier and Beales report similar drinking habits for both male and female medical students.¹⁴⁴

Figure 101 Mean alcohol consumption by survey and comparative group (units per week)					
	WM PRHO	Multi region PRHOs	SHOs	GHS consumption for 16- 24 year olds ¹⁴³	Medical students ¹⁴⁴
Males	17.5	19.4	15.3	19.1	18.3
Females	9.0	11.6	9.2	7.3	11.4

The original PRHO study showed that a higher proportion of doctors (35% of males and 20% of women) than reported for the general population consumed above the recommended limits of alcohol. This is in accordance with several other researchers.^{45,145,146,147,148} The Health of the Nation⁸⁴ document reported that 28% of men and 11% of women drink in excess of the recommended number of units per week. The GHS report 25% of professional men and 15% of professional women drank in excess of recommended levels.¹⁴³ That a higher proportion of very junior female doctors consume alcohol in excess of recommended amounts compared with comparative groups within the UK population is a cause for concern. This work shows that female doctors suffer more greatly from the strain effects of stress than their male counterparts, and they may use alcohol as a method of coping. If this is indeed true, and, that as previously reported problem drinking increases with age in the medical profession, there may be a cohort of female doctors (and indeed males) who will go on to suffer long-term adverse consequences of excess alcohol consumption in later years. This is a potentially serious issue for manpower planning, especially as female doctors continue to increase their contribution to the workforce. We suggest that further work should be carried out to determine the level of excessive alcohol consumption within the female medical population.

6.19.3 Exercise

It is widely agreed that physical exercise is beneficial to health and can prevent disease.¹⁴⁹ It is also accepted as being beneficial to general psychological health¹⁵⁰ and a useful way of combating stress. Moderate exercise of at least 30 minutes five times a week, have been advocated for health. It is possible that many doctors achieve this level of exercise within the context of their daily work. However, over half of the PRHOs and SHOs in these surveys, for whatever reasons, were not achieving these minimum levels of exercise

outside work. This may be due to reduced leisure time, but has implications for the health of juniors, as well as their ability to manage stress.

6.19.4 Changes in Coping Behaviours

The results of this survey show no relationship between stress behaviours, both adaptive and non-adaptive and reported physical and mental ill-health (as manifestations of stress). However a proportion of PRHOs, and SHOs reported an increase in consumption of alcohol and tobacco and a decrease in exercise levels following graduation or since becoming an SHO. Research shows a pattern of increasing problems related to excess alcohol consumption with age among doctors,^{46,148} although this does not appear to be the pattern seen with this cohort. This could simply be due to insufficient follow up time for this pattern of increased drinking to become apparent. Equally, the pattern observed with this cohort is contrary to that observed in the general population in which alcohol consumption tends to decrease with age.^{47,65,142,143,145} Again a similar reason may apply. That significantly more females reported an increase in alcohol consumption since graduation supports the previous concerns voiced about the consumption of alcohol by female doctors.

Explanations for the observed reduction in coping behaviours/increase in maladaptive behaviours include increased disposable income, acceptance of drinking by colleagues, longer hours awake (therefore more time to smoke), less free time to exercise or a high level of unhealthy behaviour amongst PRHOs. It may also reflect that an increase in alcohol consumption and smoking is a successful coping mechanism at least in the short term. Current reductions in junior doctors' hours of work³⁰ may also influence stress levels and coping techniques. Decreasing hours of duty, if accompanied by increased workload¹⁵¹ during those hours may result in an overall increase in stress levels. If junior doctors are to benefit from changes in hours they will need to

learn to use their increased off duty hours effectively. Simply having more time to indulge in maladaptive behaviour could increase harm.

6.20 Results of the Occupational Stress Indicator

6.20.1 Job Satisfaction

All the PRHO respondents had significantly lower scores for all aspects of job satisfaction when compared with the normative Occupational Stress Indicator data. Payne and Firth,¹ report that people working in health care settings experience higher levels of occupational stress, and perhaps as a consequence have lower levels of job satisfaction. Rees and Cooper^{92,93} also reported similar findings when comparing health and non-health care workers. The results for job satisfaction are in accordance with the general feeling which PRHOs are reported to hold about their work, much of which is likened to a “dogsbody role.”²⁰

The PRHOs also had significantly lower scores for all aspects of job satisfaction when compared with a small sample of junior doctors, $n = 40$.⁹² This difference may be attributable to the differences in seniority and age between the two groups; the junior doctors' group used for comparison purposes does not consist solely of PRHOs, rather a mixture of PRHOs, SHOs, Registrars and Senior Registrars.

The SHO respondents reported significantly greater satisfaction with two aspects of job satisfaction, namely achievement value and growth and the job itself, than they did as PRHOs in 1993. This improvement is probably a factor of occupational and personal change. For example there was a decrease in the number of hours worked, (from 56.73 hours per week as PRHOs (sd 13.76) to 41.22 as SHOs (sd 18.44) t test, $p < 0.001$). Also it is reported that there is a decrease in the least satisfying aspects of patient care (e.g. clerking) and an increase in skills, confidence and responsibility, and the opportunity to

delegate with progression up the career ladder. Financial security and personal stability also improves.

Two factors influence job satisfaction “motivators” and “hygiene” factors.¹⁶ Motivators tend to improve satisfaction and include such factors as achievement, recognition, the work itself, responsibility and advancement. Hygiene factors on the other hand prevent dissatisfaction and allow motivators to work. Examples include company policy and administration, supervision, salary, interpersonal relationships and working conditions. Motivators and hygiene factors are relatively low in the early years of a medical career but improve with seniority.

Other reasons for an increase in job satisfaction may include a general change in working climate or changes in the amount of support juniors receive brought about for example by the New Deal.³⁰

That the satisfaction with other aspects of job satisfaction and total job satisfaction did not significantly improve in the transition from PRHO to SHO is contrary to North American Researchers who have reported a positive relationship between age and job satisfaction in physicians.^{43,44} The other aspects of job satisfaction in which no change were reported look at how well an organisation functions, whether the organisation facilitates or hinders getting things done and examines views about the quality of personal relationships. It is possible that feelings towards such issues do not change very much in the transition from PRHO to SHO, indeed until the doctor reaches a more senior level in the hospital hierarchy.

PRHO's in the WM, Sheffield and Bristol scored significantly lower on job satisfaction and significantly higher in terms of mental and physical ill health than a small sample of junior doctors (all grades) and non-health care workers. Probable explanations for the differences are given on page 212. The absence of a significant difference in mental and physical ill health scores of PRHO's

in Oxford compared with normative data is probably due to the small sample size in Oxford.

6.20.2 Mental and Physical Ill-health

All PRHO respondents had significantly higher scores for mental and physical ill-health when compared with the normative Occupational Stress Indicator data. Payne and Firth,¹ report that people working in health care settings experience higher levels of occupational stress, and perhaps as a consequence have higher levels of mental and physical ill-health. Rees and Cooper^{92,93} also reported similar findings when comparing health and non-health care workers.

West Midlands PRHOs had significantly higher scores for mental and physical ill-health when compared with a small sample of junior doctors, $n = 40$. Again, this difference may be attributable to the differences in seniority and age between the two groups.

The finding of higher levels of physical and mental ill-health among women is in agreement with other studies^{41,152} and with the respondents results in 1993. Reasons for greater ill-health amongst women could be attributed to the increased pressures (stressors) which they encounter, i.e. lack of female role models, prejudice from patients and conflict between work and personal/domestic roles.^{36,118,153,154}

The negative relationship between job satisfaction and mental and physical ill-health was also found by Rees and Cooper.⁹²

The SHO respondents reported no difference in mental and physical ill-health scores in 1994 compared with in 1993 when they were PRHOs. This is contrary to the results of Hsu and Marshall⁴¹ and Reuben⁴² who reported a fall in the prevalence of depressive symptoms in doctors with seniority. It is possible that the period between surveys was not long enough to record a change, however

Reuben reported a reduction in depression with each successive year of training. It may therefore be that conditions of work in the UK are such that an improvement in psychological health cannot be attained within a short period of time.

The survey population also had significantly higher scores for mental and physical ill-health when compared with non-health care workers.¹⁰⁰ This is in accordance with others findings.^{92,93} Differences may be attributed to differences in the sources and levels of pressure and possible differences in the sex ratios of the groups. Females may be underrepresented in the non-health care group, resulting in this group having a better psychological profile than might have been expected, as women have consistently been found to have greater psychological ill-health than males.^{64,68,78,153,154}

That such a high proportion of doctors suffered mental and physical ill-health suggests the need for some form of stress management intervention. Hingley and Marks⁸⁶ summarised the benefits of some interventions:

- Meditation appears to offer effective strategies for reducing psychological and somatic symptoms of stress. It has the advantage of being low cost with a short instruction period.
- Relaxation training may directly improve performance under conditions of stress, and reduce errors. It may also give rise to reduced absenteeism.
- Biofeedback appears to be effective only in conjunction with other strategies.
- Cognitive approaches attempt to change interpretations of the environment and modify behaviour. This offers promising results and is relatively inexpensive.
- Counselling is the most frequent method of stress management. Cooper *et al*¹⁵⁵ found that their study of counselling amongst post office workers reduced sickness absence levels by two thirds, saving £10,000 for every 175 people counselled.

6.20.3 Cases

Similar proportions of the two PRHO groups could be classified as cases for mental ill-health (12.8% in 1993, 12.0% in the multi region study). A greater proportion of WM PRHOs in 1993 were classified as cases of physical ill-health (16.8% compared to 9.9% of the multi-region study of PRHOs). Additionally nearly a quarter (22%) of the SHOs could be classified as “cases”, with females significantly more likely than males to be classified as “cases” for mental ill-health. While medical sociologists have shown that symptoms are not the only predictor of who will require specialist help, clearly some of the juniors are at some risk and probably require help to manage their stress more efficiently. It is reported that SHOs are the largest proportion of doctors who refer themselves to the Tavistock Clinic, and that emotional problems tend to become apparent in SHOs because this is the first time that they have to take on real clinical responsibility.⁸⁰

That approximately half of the respondents who had been classified as “cases” as PRHOs in 1993 remained as “cases” as SHOs in 1994 warrants concern. This suggests that there is a subset of doctors who, for whatever reason, have persistent problems and require help. Introducing stress management into the undergraduate curriculum may help these people to cope with their difficulties. Also the provision of a stress counselling service, as provided in the West Midlands since January 1995, may supply these individuals with the help they require.

6.20.4 Multivariate analysis

6.20.4.1 *Job satisfaction at PRHO level*

Stepwise multiple regression was used to determine the relationship between job satisfaction and various independent variables for each of the three studies. For the PRHOs, only one predictive factor was common to the two studies (job status as PRHO level, accounting for 18% and 20% of variance respectively). The low status of PRHOs has been highlighted by Dowling and Barrett.²⁰ They reported that PRHOs view themselves to be in a “dogsbody role: picking up the pieces, apologising for others, being dumped on.” They also reported that:

“The experience of many PRHOs is that they are not valued, except by patients and nurses. They feel that their consultants and general managers take their long hours for granted, ignore them unless they make mistakes, and rarely praise, thank or acknowledge them and their work when it has been done well or has been particularly difficult.”

PRHOs perception of their status could be improved by managers, consultants and other health care workers recognising the value of their work, and, for example, by ensuring allocation of appropriate work and keeping mundane work to a minimum. Dowling and Barrett²⁰ called for a cultural change so that house officers feel valued by those managing them. The results of this study support and endorse this recommendation.

The other predictors differed between the two studies. This may be a result of changes over time brought about by the New Deal,³⁰ or reflect different problems in different areas.

6.20.4.2 Mental and physical ill-health at PRHO level

Stepwise multiple regression was used to determine the relationship between mental and physical ill-health and various independent variables for each of the three studies. Predictors for mental ill-health were more consistent between the two PRHO studies, with regret for choosing medicine as a career accounting for 12-14% of variance in the 2 studies. Another 4 predictors (feeling isolated at work, being female, adequacy of undergraduate training and concern about litigation) accounting for less than 5% of variance a piece.

There were three common predictors of physical ill health between the two PRHO groups (regret at choosing medicine as a career, being female, and feeling isolated) with regret accounting for 10-12% of variance.

In terms of factors which may predict stress in its general sense, expressing regret about career choice appears to be a problem. It may be that some people who experience regret feel trapped within medicine, having spent 5 or 6 years qualifying they may feel unable (psychologically and/or financially) to undertake further training to enable them to leave medicine. Some of Allen's sample also reported that they felt trapped by medicine.¹⁹ Providing comprehensive career guidance may help such people to plan the most appropriate career within medicine or give advice and support about options outside medicine.

Feeling isolated at work is also a predictor of both mental and physical ill-health. Developing a team spirit which endorses a sense of belonging could improve this situation as would obtaining feedback and support from colleagues. It may also be that people who are suffering from some psychoneurotic disorder are more withdrawn and less able to communicate with others. Firth-Cozens⁶⁴ reported that the more distressed her sample of junior doctors, were the more negatively they saw aspects of their roles, particularly when relating to

consultants. In particular they felt less able to discuss problems with senior colleagues and were less sure of what was expected of them.

Additionally, being female is also a significant predictor of both mental and physical ill-health. Females have been shown to consistently have greater psychological ill-health than males.^{64,68,78,153,154} In the case of female doctors it may be because they have additional stressors to those faced by male doctors.²

6.20.4.3 Job satisfaction at SHO level

Stepwise multiple regression was used to determine the relationship between job satisfaction and various independent variables for each of the three studies. 45% of the variance in total job satisfaction could be explained by 6 variables. 18% of the variance was explained by respondents perceived level of control, those who felt in control of their job having higher job satisfaction. This is in accordance with Herzberg's model of job satisfaction, where responsibility (control) is perceived as a motivator for enhanced job satisfaction.

Receiving support from ones boss was also a significant predictors of high job satisfaction. Hale and Hudson⁸⁰ reported that the junior doctor/consultant relationship is of primary significance to the personal well-being and professional competence of SHOs. SHOs were reported to warm to consultants who acted as surrogate parents, the relationship, in a number of cases, having an influence on their professional life. Receiving support enables a person to feel valued and therefore is a precursor for job satisfaction.

Believing that the length of their working hours was not too long was a significant predictor of job satisfaction. It has been reported that the issue of long hours is used as a cloak to mask deeper ills.¹⁴ However Meek reported that 39.4% of SHOs believed that working fewer hours would improve their job satisfaction levels. Changes in working practices brought about by Junior

Doctors - the New Deal³⁰ may well continue to improve this situation and improve the doctor's satisfaction levels.

Expressing concern about the possibility of litigation was also a significant predictor of low job satisfaction. Likewise Richardson and Burke⁴⁴ report that there is some evidence of a relationship between threats or actual malpractice suits and job satisfaction. The provision of practical support on a crisis basis e.g. in the event of a complaint against a doctor may help doctors deal with the issue of litigation.

Only one predictor was common to the group as PRHOs and as SHOs. This was job status, although it accounted for much less variance as SHOs (8%) than as PRHOs (18%). This probably reflects a more mature attitude of respondents to the issue of job satisfaction which comes with increasing job responsibility.

SHOs perception of their status could be improved by managers, consultants and other health care workers recognising the value of their work, and, for example, by ensuring allocation of appropriate work and keeping mundane work to a minimum. Dowling and Barrett²⁰ called for a cultural change so that house officers feel valued by those managing them. The results of this study support and endorse this recommendation, and suggest that exactly the same philosophy should apply to SHOs.

6.20.4.4 Mental and Physical ill-health at SHO level

A total of 5 factors explained 37% of variance for mental ill-health and 6 factors explained 32% of variance for physical ill-health. Showing regret for choosing medicine as a career, being female and feeling isolated at work were significant predictors for both mental and physical ill-health.

Not only were regret for choosing medicine as a career, being female and feeling isolated at work predictive of mental and physical ill-health at SHO level, but were also predictive at PRHO level (both for the West Midlands group and the multi region group). It would therefore appear that these three factors can consistently predict mental and physical ill-health in PRHOs and SHOs

6.21 Generalisability of OSI scores across geographically dispersed junior doctors

There were no significant differences in the scores for job satisfaction and mental and physical ill health of the PRHO's in the different Regions compared with the scores for PRHO's as reported in the WM in 1993, although PRHO's from Mid Trent scored significantly higher than those in Oxford for the job itself suggesting better working conditions in the mid Trent. This would suggest that PRHO's are a fairly homogenous group, and that the training which they receive at the various medical schools across the country is also fairly consistent. It also suggests that the work conducted by PRHO's in different hospitals across the various Regions is fairly uniform. In light of the absence of differences between the groups of PRHO's it would seem reasonable to assume that the findings obtained can be generalised to the total PRHO population in the UK.

The results also indicate that general improvements in job satisfaction and mental and physical ill health have not been obtained despite improvements in working conditions, e.g. reduction in hours brought about by the New Deal. However, a significantly lower proportion of PRHO's in 1994 could be termed cases in terms of their physical ill health in 1994 compared with PRHO's in the WM in 1993 suggesting that changes may have affected a sub-group of people.

6.22 Generalisability to the medical workforce

As noted earlier, the medical profession, and indeed the wider NHS clinical workforce, face many stressors, not least those related to direct patient care, but also to changes in policy and the way the service is delivered.^{2,4,8,9} This work, in accordance with other published work, suggests that junior doctors face several key problems:

- low job satisfaction generally,^{18,24,43,44,61,92,93,102} but particularly with the organisational processes within which they work, together with the quality of personal relationships
- considerable occupational stressors, but a highly competitive environment which may hinder open discussion of these issues, and peer support for doctors experiencing stress^{64,74}
- long hours
- poor preparedness for working life, with clear deficiencies in basic clinical and managerial skills.^{19,20,64}

Do other doctors fair better? Medical students^{26,73} may face a curriculum overloaded with factual information, large numbers of examinations and constant face to face evaluation of their skills, but so to do all other doctors. Keeping apace with advances in medicine is a burden upon all practitioners, yet the structure of medical training tends to encourage the learning of factual information rather than a more problem solving or critical thinking approach. An alteration to the approach taken to undergraduate teaching may therefore help stress-proof other doctors.

Long working hours are not the sole province of the junior doctor.^{2,4,18} Changes to medical training and education and the emphasis on a consultant led NHS service mean that many consultants face long hours of work too, as well as a requirement to participate in non clinical activities ranging from audit to management. Equally, juniors trained under the New Deal may begin to

experience greater stress as they move up the career ladder, and are expected to take on ultimate clinical responsibility of patient care with less training, and are expected to work longer hours than required under the New Deal³⁰ and Calman training regulations.¹³⁴

Lack of training in clinical and managerial issues will leave many doctors at all stages of their career being asked to undertake work they do not feel well prepared to do,^{19,20,26,64,68,74} be this an invasive procedure, or a managerial task. By training young doctors better, it may be possible to reduce some of the stressors faced later in the career. A more open discussion of the realities of a career in medicine and greater peer support may enable practitioners undergoing a period of stress to be supported within their working environment, rather than expected to continue as if nothing were amiss.

The results of this study fail to support a general improvement in job satisfaction associated with increasing seniority, particularly related to the organisational processes within which they work, and the quality of personal relationships. More participative working styles, both clinical and managerial, may be of benefit to all staff,^{12,13,14,15} and patients.

It would therefore appear that many of the stressors faced by juniors are common to the wider medical profession, and that training, or at least open discussion and acceptance of some of the issues might be beneficial for doctors at all stages of their career.

Section 7 Conclusions and recommendations

7.1 Conclusions relating to PRHOs

Taken from the original PRHO survey, and the multiple district survey. Conclusions relate to both studies unless indicated (O = original PRHO study, M = multiple centre study)

7.1.1 Biographical profile

1. The majority of PRHOs were Caucasian, entered medical school after A levels and were single.
2. The majority of PRHOs came from middle class (non-manual) backgrounds.
3. A fairly high proportion had a parent who was a doctor.

7.1.2 Influences and pressure to study medicine

1. Over half of the respondents considered that their decision to study medicine had been influenced by a “significant other person.”
2. This is particularly likely to occur where there is a doctor parent.
3. About a fifth to a quarter considered that they had been pressured into studying medicine. For the majority that felt either influenced or pressured, this feeling was considered to be weak.

7.1.3 Careers advice prior to medical school

1. Many people entering medical school were ill advised as to the realities of a medical career.
2. Those with doctor parents were better acquainted with the realities of a medical career.

3. Few respondents had spent time with a house officer before studying medicine. However around 40% had spent time with either a GP or a consultant.

7.1.4 Desire to study medicine

1. Over a half of respondents had decided to become doctors before the age of 15 years, and about a quarter had never contemplated studying anything other than medicine.
2. The majority of PRHOs demonstrated a strong desire to study medicine.
3. Females reported a significantly stronger desire to study the subject than others (O).
4. Those people who were pressured into studying medicine had a weaker desire to study the subject than those who were not pressurised.
5. Desire to study medicine tends to be strong, and associated with a decision to become a doctor by the age of 15 (M).

7.1.5 Reasons for studying medicine

1. Most people studied for humanitarian reasons.
2. A significant minority studied medicine for less altruistic (money) reasons.

7.1.6 Leaving before graduation

1. Between a third and a half of undergraduates will consider leaving undergraduate medicine before finally qualifying.
2. The majority contemplate leaving in year 3.
3. Many of the reasons for considering leaving could be considered as maladaptive or transient responses to the pressures imposed by the undergraduate system (money, examinations etc.).

4. Respondents who had to resit an exam at undergraduate level were significantly more likely to contemplate leaving medicine before graduating.

7.1.7 Regretting medicine

1. The majority of people experienced some regret about studying medicine, mainly due to issues surrounding responsibility and the impact that a medical career had on the rest of their life.
2. Those who were better informed of the realities of medical practice were less likely to experience regret.
3. Females and those who made the decision to enter medicine after the age of 15, regretted their choice more than males and those who decided on their career before the age of 15.
4. Females were significantly more likely to express regret because of long hours, interference with the rest of their lives.
5. 12-18% would not study medicine if they had their time again.
6. 5-10% had taken steps towards leaving, although only a few individuals had taken definitive measures (another job or course to go to).
7. Those who experienced regret were significantly more likely to have scores for mental and physical ill-health which matched or exceeded those found in patients with psychoneurotic disorders.

7.1.8 A career in medicine

1. Careers advice at PRHO level was not wide spread.
2. Medicine, surgery, psychiatry and general practice are the most preferred career choices.
3. Female PRHOs were more likely to intend to become GPs and to work part-time than males, whilst males were significantly more likely to plan a career in surgery.

4. A minority felt unable to pursue their original career choice. Most of these planned a career in general practice as an alternative.
5. Opportunities for part-time training were known to less than 50% of the respondents. Despite this over 70% were prepared to work part-time, with significantly more females than males reporting so.

7.1.9 Medicine and the family

1. Medicine was believed to be a career most suited to males and likewise it was believed to be easier for males to combine medicine with family life.
2. The vast majority of juniors believed that regular changing of jobs was a source of stress.
3. Most juniors believed that men progress their career in medicine faster than women.

7.1.10 How you view medicine

1. PRHOs rated their own job status and job satisfaction as low.
2. PRHOs considered GPs well paid, consultants moderately paid and themselves poorly paid.
3. PRHOs perceived both GPs and consultants to have moderate/high job satisfaction but themselves to have marginally lower job satisfaction.
4. Consultants and GPs were perceived to have higher job status than PRHOs. Consultants were thought to have higher job status than GPs.

7.1.11 Working as a PRHO

1. Morale and job satisfaction were rated moderately.
2. Females had lower morale than males.
3. Females felt more isolated than males (O).
4. PRHOs skills were reported to be under-utilised.

5. Many PRHOs were concerned about the threat of litigation, females significantly more so than males.
6. Many reported to have had support from their consultant and from nurses but few reported support from hospital management.
7. Most PRHOs felt part of a team.
8. Most PRHOs felt that there was a scramble for jobs in order to advance a career in medicine. Most also felt security of employment.
9. Most believed that it would be difficult to climb the medical career ladder.
10. The majority felt committed to a career in medicine despite around a quarter feeling not entirely happy with their profession.

7.1.12 Improvements to training at undergraduate level

1. Many PRHOs considered themselves inadequately trained for the job they did, and for working in the NHS.
2. Training in practical procedures, the politics of the NHS and self management were most lacking.
3. There appeared to be a need for career counselling, stress management training and the provision of a stress management service.

7.1.13 You and your hours of work

1. At the time of both studies, a proportion of PRHOs were working outside of the hours allowed in the New Deal.
2. Rotas were the most common form of on-call system during both the survey periods.

7.1.14 Hospital accommodation and facilities

1. Access to freshly prepared meals out of hours is limited.
2. Many juniors relied on snack foods when on-call.
3. About half of PRHOs lived in permanent hospital accommodation.
4. Hospital mess facilities and hospital accommodation were generally rated moderately, although a significant minority rated them poorly.

7.1.15 Lifestyle and coping behaviours

1. Positive ways of managing stress such as exercise were not widely practised.
2. Significant proportions of PRHOs were drinking to excess. This appeared most problematic for females.

7.1.16 Results of the OSI

1. Job satisfaction and health was low compared to non health care workers, and compared to more senior junior doctors.
2. Female PRHOs had worse psychological ill-health than their male colleagues.
3. Between 10 and 20% of respondents had mental and/or physical ill health score which were equal to those of patients with psychoneurotic disorders.
4. Improvements in job satisfaction and mental and physical ill health do not appear to have been obtained despite improvements in working conditions, e.g. reduction in hours brought about by the New Deal.

7.1.17 Multivariate analysis

1. Some variables may be used to predict job satisfaction and ill health, although these are not consistent across the surveys, nor over time. One exception to this is gender (being female), feeling isolated, and regret about choosing a career in medicine were consistent predictors of mental and physical ill-health.

7.1.18 General

1. In view of the lack of variation in the results between regions and the consistency of results over time, it would appear that these results are generalisable to the English PRHO population.

7.2 Conclusions related to changes between PRHOs in 1993 and PRHOs in 1994

1. The level of regret decreased among PRHOs between 1993 and 1994, possibly due to better working conditions attributable to the New Deal.
2. Mean hours of work had reduced from 56 hours in 1993 to 52.4 hours in 1994.
3. No change in job satisfaction or levels of mental and physical ill-health from 1993 to 1994.

7.3 Conclusions relating to SHOs

Taken from the follow up survey

7.3.1 Regretting and leaving medicine

1. About two thirds of the respondents experienced some regret about studying medicine.
2. The main reasons for regret were due to quality of life issues (working conditions and personal).
3. Females were significantly more likely to report regret than males and more likely to express regret because of the interference of medicine with the rest of their lives and responsibility than males.
4. People with mental and physical ill health scores that matched those of patients attending psychology out-patient departments were significantly more likely to express regret.
5. Over a fifth would not study medicine if they had their time again.
6. About 8% had taken some steps towards leaving the medical profession.

7.3.2 A career in medicine

1. Medicine, surgery, anaesthetics and general practice were the most preferred career choices.
2. Females were significantly more likely to plan a career in general practice whereas males were significantly more likely to plan a career in surgery.
3. Reasons for choosing a career path were varied. Experience, social considerations and enjoyment featured highly.
4. A minority felt unable to pursue their original career choice. Most planned a career in general practice as an alternative.

5. Opportunities for part-time training were known to less than 50% of the respondents. Despite this over 70% were prepared to work part-time, with significantly more females than males reporting so.

7.3.3 Medicine and the family

1. Over three quarters believed that a career in medicine was most suited to males.
2. Likewise it was thought more possible for males to combine medicine with a family.
3. Over 95% believed that men progress their career in medicine faster than women.
4. The vast majority believed that regular changing of jobs was a source of stress.

7.3.4 How you view medicine

1. SHOs considered GPs well paid, consultants poorly moderately paid and themselves reasonably/poorly paid.
2. SHOs perceived both GPs and consultants to have moderate/high job satisfaction but themselves to have marginally lower job satisfaction.
3. Consultants and GPs were perceived to have higher job status than themselves. Consultants were thought to have higher job status than GPs.

7.3.5 Pre-registration medical/surgical training in practical procedures

1. Respondents were more satisfied with the training in practical procedures that they received during their medical house jobs than during their surgical house jobs.
2. Reasons for this dissatisfaction were all related to lack of time or opportunity or lack of support.

3. Over 90% wanted formal career counselling during their SHO post. Clinical tutors and trained external counsellors were believed most suitable to provide such a service.
4. Over 60% wanted a formal stress counselling service to be provided whilst working as SHOs. The majority wanted such a service to be provided by a trained external counsellor.

7.3.6 Lifestyle and coping behaviour

1. A lower proportion of respondents than reported for the general UK population smoked.
2. Males consumed a greater volume of alcohol than females, and also were significantly more likely to consume in excess of recommended amounts.
3. Female respondents were almost twice as likely to consume in excess of recommended amounts than reported for the UK general population.
4. Exercise was not widely practised by the respondents.

7.3.7 Occupational stress indicator

1. Male and female SHOs had similar job satisfaction levels, but females had significantly worse mental and physical ill health.
2. SHOs had lower job satisfaction and worse psychological well-being than non-health care workers, but had similar values to other SHOs in the West Midlands.
3. 22% of respondents had mental and/or physical ill health score which were equal to those of patients with psychoneurotic disorders.
4. SHOs require further support if quality of work is not to be affected.

7.3.8 Multivariate analysis

1. A larger proportion of the variance for job satisfaction and ill-health can be predicted. It should therefore be possible to improve morale by tackling these predictors.
2. The predictors for mental and physical ill health were similar.

7.3.9 Working as a SHO

1. Morale and job satisfaction were rated moderately.
2. SHO skills were reported to be under-utilised.
3. The majority felt overworked, with significantly more females than males reporting so.
4. Many SHOs reported that they had support from consultants and nurses, but managers were generally considered unsupportive.
5. Most felt in control of their job to some extent.
6. Most SHOs felt part of a team, with nearly 50% feeling part of a multi-disciplinary team.
7. Most respondents believed that there was a scramble for jobs in order to advance a career in medicine. Most also felt that their profession offered them security of employment.
8. Most felt concerned about the threat of litigation, women significantly more so than males.
9. Although the SHOs believed it would be relatively difficult to climb the medical career ladder, women believed that it would be significantly more difficult than males.
10. The majority felt committed to a career in medicine despite about a quarter not being entirely happy with their profession.

7.2.10 Hospital accommodation and facilities

1. Fewer than 40% of SHOs had access to freshly prepared food out of hours. Many relied on snack foods when on-call.
2. Just over a quarter of SHOs lived in permanent hospital accommodation.
3. Hospital accommodation and mess facilities on the whole were rated moderately, although a minority considered them poor to very poor.

7.3.11 You and your hours of work

1. About 7% of respondents were working in excess of the 56 hours maximum on-call advocated by the New Deal.
2. Rotas were the most popular form of on-call cover in the Autumn/Winter 1994.
3. There was no significant difference in patterns of work and job satisfaction and physical ill health.

7.4 Conclusions related to changes in the transition from PRHO to SHO

7.4.1 Regretting and leaving medicine

1. The level of regret about studying medicine was similar to that reported by the respondents in 1993.
2. Over half of the respondents who indicated that they had taken some steps to leave the profession had also taken steps to leave in 1993.
3. A maximum of 1.5% of respondents had ceased practising medicine.

7.4.2 A career in medicine

1. The respondents were significantly less likely to choose a career in a hospital clinical specialty in 1994 compared with in 1993.

7.4.3 How you view medicine

1. Consultants' and GPs' pay and job status and consultants' job satisfaction were considered lower in 1994 than in 1993.

7.4.4 Lifestyle and coping behaviour

1. There was no significant change in the volume of alcohol consumed, or the proportion of people consuming in excess of recommended amounts between 1993 and 1994.
2. There was a significant reduction in the amount of exercise taken between 1993 and 1994.

7.4.5 Occupational stress indicator

1. Satisfaction with the achievement value and growth aspect of job satisfaction and with the job itself improved from PRHO to SHO level. There was no significant improvement in mental and physical ill health scores.
2. A sub group of doctors appear to suffer from persistent psychoneurotic problems.

7.4.6 Working as a SHO

1. Significantly more SHO respondents reported their job to be satisfying at SHO level than at PRHO level.
2. Significantly fewer SHOs believed their skills to be under-utilised as SHOs compared with when PRHO.
3. There is a considerable improvement in respondents feeling part of a multi disciplinary team at SHO level compared to PRHO level.

7.4.7 You and your hours of work

1. The average maximum on call-duty was significantly lower than in 1993 and was in line with recommendations set by the New Deal.

7.5 Recommendations

Prevention of stress is a complex process, which needs to take place at many levels:¹⁵⁶ the organisation including task and physical demands, and role and interpersonal demands; and the individual including stressor directed, response directed and symptom directed. See Figure 102. The following recommendations include various initiatives that have been attempted within healthcare and other settings.

Figure 102 Stress management and prevention	
Organisational	Individual
<p><i>Task and physical demands</i></p> <ul style="list-style-type: none"> • Task redesign • Participative management • Flexible working • Career development • Design of physical surroundings <p><i>Role and interpersonal demands</i></p> <ul style="list-style-type: none"> • Role analysis • Goal setting • Social support • Team building 	<p><i>Stressor directed</i></p> <ul style="list-style-type: none"> • Managing perceptions of stress • Managing the work environment • Lifestyle management <p><i>Response directed</i></p> <ul style="list-style-type: none"> • Relaxation training • Physical outlets • Emotional outlets <p><i>Symptom directed</i></p> <ul style="list-style-type: none"> • Counselling and psychotherapy[y • Medical care

7.5.1 School careers advice

It is recommended that schools career advice should be better tailored to the needs of potential medical students. In particular:

1. sixth formers should spend adequate amounts of time with a consultant and/or GP, and a PRHO.²⁷
2. adequate information about the realities of medical life should be given for example length of hours, postgraduate training.
3. The BMA video “A stressful shift” may be a useful learning tool for students.²
4. schools and local hospitals should develop links to provide “hands on” experience of medical life. Postgraduate Deans could facilitate this.
5. local hospitals should be encouraged to develop links with schools in order to provide “hands on” experience of medical life for those students wishing to study it.

7.5.2 Undergraduate selection and support

It is recommended that:

1. undergraduate selection should be improved,²⁶ such as by asking questions such as those outlined in Figure 103. This may result in fewer people expressing regret and disillusionment in later practice. However these can only be used as a guideline.
2. medical students should be better trained and supported during their undergraduate careers, for example with the provision of career counselling,¹¹⁵ training in examination techniques, and access to career and financial counselling.
3. exploration of alternative University courses for those expressing disquiet about a medical career should be easily available and non-judgmental.

Figure 103 Weeding out the best? Questions to ask prospective medical students

- How old were you when you decided to become a doctor?
- Have you spent time with a GP or consultant? Have you spent time with a PRHO?
- How long is undergraduate training?
- What is the average number of hours that a PRHO works?
- How long will it take to get to consultant level?

7.5.3 Training at undergraduate level

It is recommended that:

1. training of doctors and medical students should address self management skills such as stress management, time management, delegation etc. as well as more basic clinical skills.^{1,20,61,64,157,158} The current review of the undergraduate curriculum should look to incorporate these subjects.
2. training in practical procedures at undergraduate level must be improved.^{20,132} The current review of the undergraduate curriculum should look closely at this area.
3. some form of substantive induction programme is necessary to prepare new graduates for professional life. This should include the organisation, structure and politics of the NHS, time management, pay deals and dealing with managers.

4. all hospitals should offer some form of induction training to new appointees.

7.5.4 Training at PRHO level

It is recommended that:

1. more structured training in practical procedures should be introduced, and adequate provision made for protected training time. This would increase the confidence that PRHOs have in their own practical abilities. Providing PRHOs with a list of practical procedures in which they should be competent, together with some form of self assessment may be useful.
2. senior doctors should receive training in basic educational techniques, particularly relating to the provision of practical training for junior doctors.²⁶
3. arrangements for the regular supervision, support and teaching of PRHOs are monitored.

7.5.5 Working and living conditions

It is recommended that:

1. close monitoring of the hours of work should continue.
2. there should be continued improvement in working and residential conditions for junior doctors.
3. special emphasis should be placed on catering provisions for junior doctors, with adequate out of hours freshly prepared food available for those on-call.
4. Postgraduate Deans should use their authority to withdraw approval for PRHO posts where hospitals do not provide basic standards of living conditions.

5. it may be advantageous to provide a list of appropriate tasks for PRHO jobs and lists of those which can be delegated to other staff. The Regional Task Force has a role to play in negotiating this.
6. SHOs' skills should be better utilised. A review of job design and organisation should be undertaken with alteration of job design and delegation of tasks where appropriate. For example, employ more nurse practitioners and phlebotomists to cover appropriate tasks and delegate technical, clerical and administrative duties to appropriate staff.
7. Following on from the above, SHOs should be provided with a list of tasks which it is appropriate for them to delegate to other staff. The Regional Task Force has a role to play in negotiating this.
8. Working conditions, especially within hospital medicine should be improved so as not to discriminate against female doctors with family commitments.
9. There is a need to encourage more women doctors to stay in hospital specialities.
10. COPMED need to consider the effect of isolation and other difficulties associated with short term contracts and frequent job changes before increasing their drive for advocating three, four month training periods at PRHO level.

7.5.6 Careers advice

It is recommended that:

1. formal career's guidance should be routinely provided for medical students and PRHOs. Such a service should be well advertised and provided by clinical tutors, consultants or trained external counsellors. It is important that training is provided for those responsible for counselling.¹³⁶
2. formal career's guidance should be routinely provided for SHOs, including advising individuals that they are ill-equipped for training in a given specialty.

3. explicit information should be made available about job prospects, career development etc.
4. advice on alternative career path options should be made available to those who are dissatisfied with medicine and wish to leave.
5. opportunities for part-time training should be more widely available, and open equally to both males and females. Postgraduate libraries should display this information prominently. In addition the medical career should be developed to be more flexible. Adequate provision/structures should be made to allow for retraining following a career break.
6. there is a need to encourage more women to stay in hospital medicine and especially to enter such specialities as surgery. Hours of work of hospital medicine and lack of part-time opportunities in such specialities would need to be addressed in order to initiate such change.

7.5.7 Support of doctors

It is recommended that:

1. arrangements for adequate supervision and support of junior doctors and female doctors in particular should be made. Examples include ensuring the availability of middle and senior grade cover at all times.
2. PRHOs' skills should be better utilised. A review of job design and organisation should be undertaken with alteration of job design and delegation of tasks where appropriate. For example, employ more nurse practitioners and phlebotomists to cover appropriate tasks and delegate technical, clerical and administrative duties to appropriate staff.
3. consultants and hospital management should work to improve the status of junior doctors, which would improve morale and job satisfaction.
4. seniors should provide better and more constructive feedback to junior doctors. An exit interview may provide helpful advice to both parties.
5. support and advice about the threat of litigation should be available, along with clear instruction and support as to how to respond if a patient

complains. Teaching basic medical law at undergraduate level may help reduce the stress associated with litigation. A pocket sized “How to handle a patient complaint” card may be useful.

6. longer term contracts e.g. pre-registration posts in the same hospital or district would provide better support for the PRHO along with greater efficiency for the hospital (only one set of systems has to be learned).
7. training of consultants in team building techniques would also provide better support to juniors.
8. methods for increasing employee participation within hospitals should be investigated and adopted in order to improve the internal locus of control of junior doctors.
9. longer term contracts e.g. pre-registration posts in the same hospital or district would provide better support and reduce stress for the PRHO along with providing greater efficiency for the hospital (only one set of systems has to be learned).

7.5.8 Health behaviours

It is recommended that:

1. measures are taken to develop health policies that control alcohol and tobacco consumption and encourage exercise within the workplace.
2. positive means of managing stress e.g. exercise should be encouraged. Providers should look at the possibility of providing gym facilities on-site or offering staff reduced subscriptions to local facilities.

7.5.9 Stress management

It is recommended that:

1. a region wide confidential counselling service should be provided, specifically for doctors. Such a service should also provide counselling to medical students, and should dovetail into the National Sick Doctor counselling scheme.^{137,138,139,140,141}
2. special emphasis needs to be placed on a cohort of doctors who appear to have deep seated psychological problems (classified as persistent cases).
3. the problems faced by female doctors in combining family and careers could be alleviated by increasing the number of part-time or job share posts in the NHS. This will require a change in attitude towards part-timers, away from the current "She's not committed" to "s/he's as committed as everyone else for the 3 days a week s/he's here." Women returning to work should have access to retraining or "up-date" courses in order to prepare them for the workplace.
4. changing jobs is considered a source of stress for junior doctors. This could be reduced by the introduction of longer contracts, or rotations based within one hospital so that juniors take a working knowledge of "the system" with them as they rotate.

7.5.10 Cultural changes

It is recommended that:

1. a culture which endeavours to recognise and support staff experiencing stress is adopted.
2. the ethos of self care be established.
3. the culture "It's OK to seek help" be established.
4. regrets about a career in medicine should be openly acknowledged.

7.5.11 Further research

1. alcohol consumption of female doctors be examined further as this appears to be a potential problem.

Section 8 Outcomes of the research comprising a stress counselling service, a book, incorporation of stress management into the undergraduate curriculum and the introduction of a course for final year medical students

8.1 The counselling service

One of the questions in the initial survey asked if stress counselling should be provided, and if so, by whom. 60.4% wanted a formal stress counselling service to be provided, with a clear majority (82.5%) wanting this provided by a trained external counsellor. It was therefore decided to undertake a brief study into the feasibility of setting up such a service.

Discussion with psychiatrists, psychologists and clinical tutors suggested several models for providing such a service, including Employee Assistance Programmes, Occupational Health services, private counsellors etc. Indeed many of the clinical tutors felt that they were in a position to counsel stressed juniors, themselves, but this was firmly refuted by the juniors. Two lunch time focus groups were arranged, in which junior doctors of all grades were asked to give their views on the logistics of providing a counselling service.

The final format suggested was that of a centrally based service, with outreach posts as required. A crisis intervention model was put forward, with skilled referral to appropriate services if long-term counselling was required. Training in stress management was considered important, and was to be provided alongside a counselling service. As funding was to be sought from the Postgraduate department, the service would be open to doctors and dentists in training only i.e. would exclude medical students and doctors in substantive career posts. The author was more in favour of a “seamless” service open to all medical staff from student to consultant and GP, and indeed approached the medical school for possible funding, although this was refused on the grounds that the medical students already had access to a University based counselling service.

Following the feasibility study, an application for funding was made to the PMDE. This was based on the appointment of a full time clinical psychologist

to provide a three stranded service (educational, counselling and research). After discussion, it was agreed that an education and counselling service only, run by a clinical psychologist, should be put out to tender. Funding was provided for two years in the first instance. A total of 22 applications were received, from both NHS and private firms. Assessment of the applications was undertaken by the author, a clinical psychologist, a consultant psychiatrist and a business manager, and included presentations from a short-list of 5 organisations. The tender was awarded to Sandwell Psychology Service, part of the Black Country Mental Health NHS Trust, for the provision of the "CONTACT" stress management and counselling service (see appendix 9 for advertising material).

The service began in January 1995 and provides seminars in stress management to all hospitals within the West Midlands, along with up to 12 face to face or telephone counselling sessions for distressed individuals who feel they may benefit. No charge is made for the service either to Trusts or to individuals. All junior doctors working in the West Midlands are sent details of the scheme including the contact number on credit style cards, and bleep stickers, and all Trusts are expected to co-operate in the hosting of stress workshops and seminars.

A review of the service in May 1996 suggested that take up of face to face counselling contacts by junior staff had been quite low, but that the service was experiencing increasing difficulties from consultants lobbying for access to the service during seminars. In view of this, it was decided to continue funding for a further year (until December 1997, 3 years total), but to open the service up further. In September 1996, Consultants, sub-consultant grade staff, General Practitioners and General Dental Practitioners were invited to make use of the service offered.

During the 2 years from January 1995 to December 1996, a total of 95 doctors have contacted the service, with 38 male and 26 female doctors attending for

face to face counselling. Presenting problems are many and varied, and examples listed in order of frequency are given in Figure 104. Many individuals present with more than one, or indeed several, problems. Grade of doctor and specialty in which they are working are shown in Figure 105 and Figure 106.

Figure 104 Problems presenting to the Stress Counselling Service	
<p>Work related</p> <ul style="list-style-type: none"> • Career progress • Work - relationships • Work - Organisational • Anxiety • Work load • Social life disruption • Depression • Work - environment • Legal - work • Alcohol 	<p>Home related</p> <ul style="list-style-type: none"> • Marital/relationship • Family pressure • Anxiety • Depression • Separation/divorce • Illness (own) • Social life disruption • Alcohol • Sleeping difficulties • Bereavement

Figure 105 Grade of doctor presenting for counselling (1995 and 1996 data)

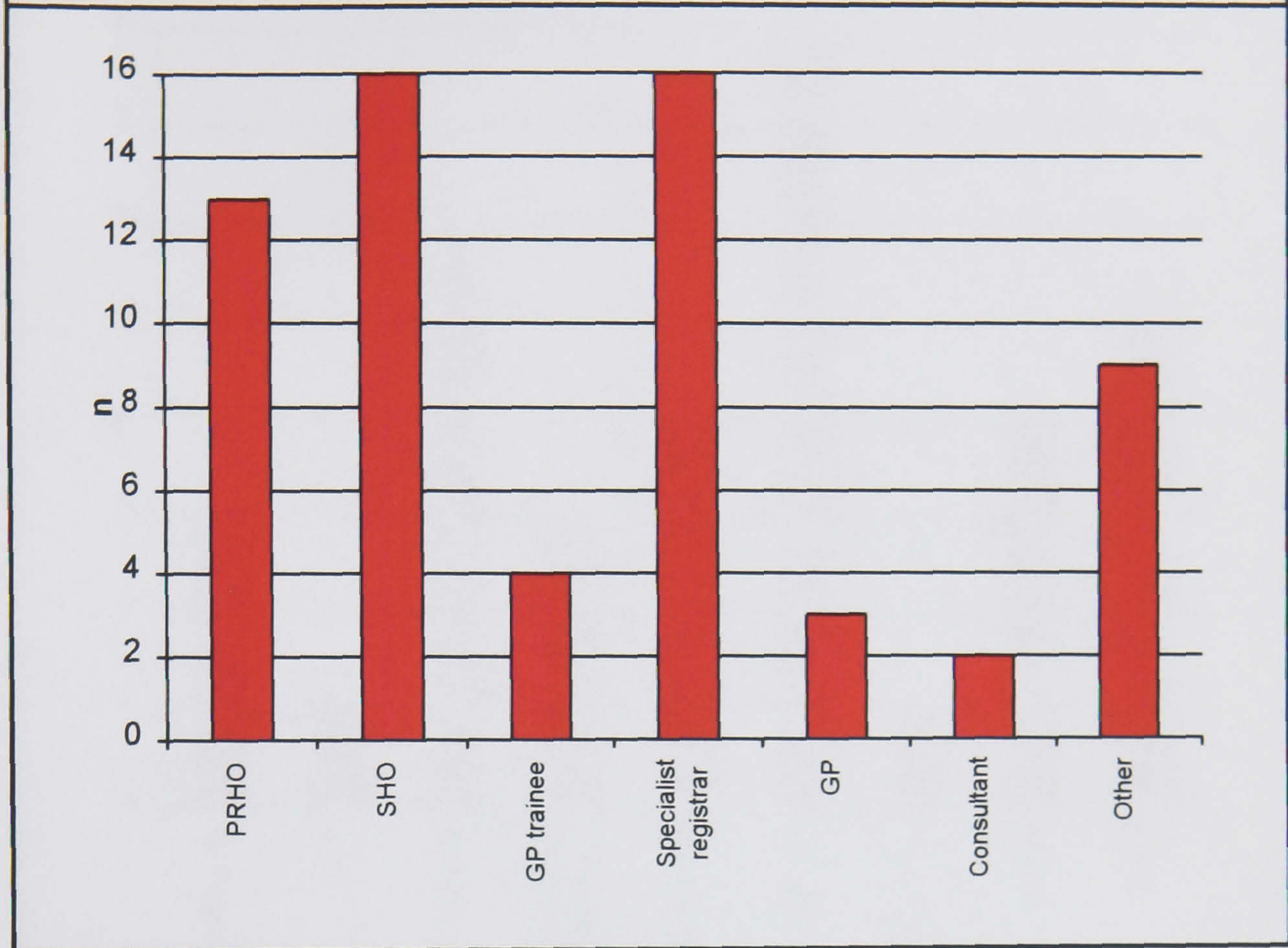
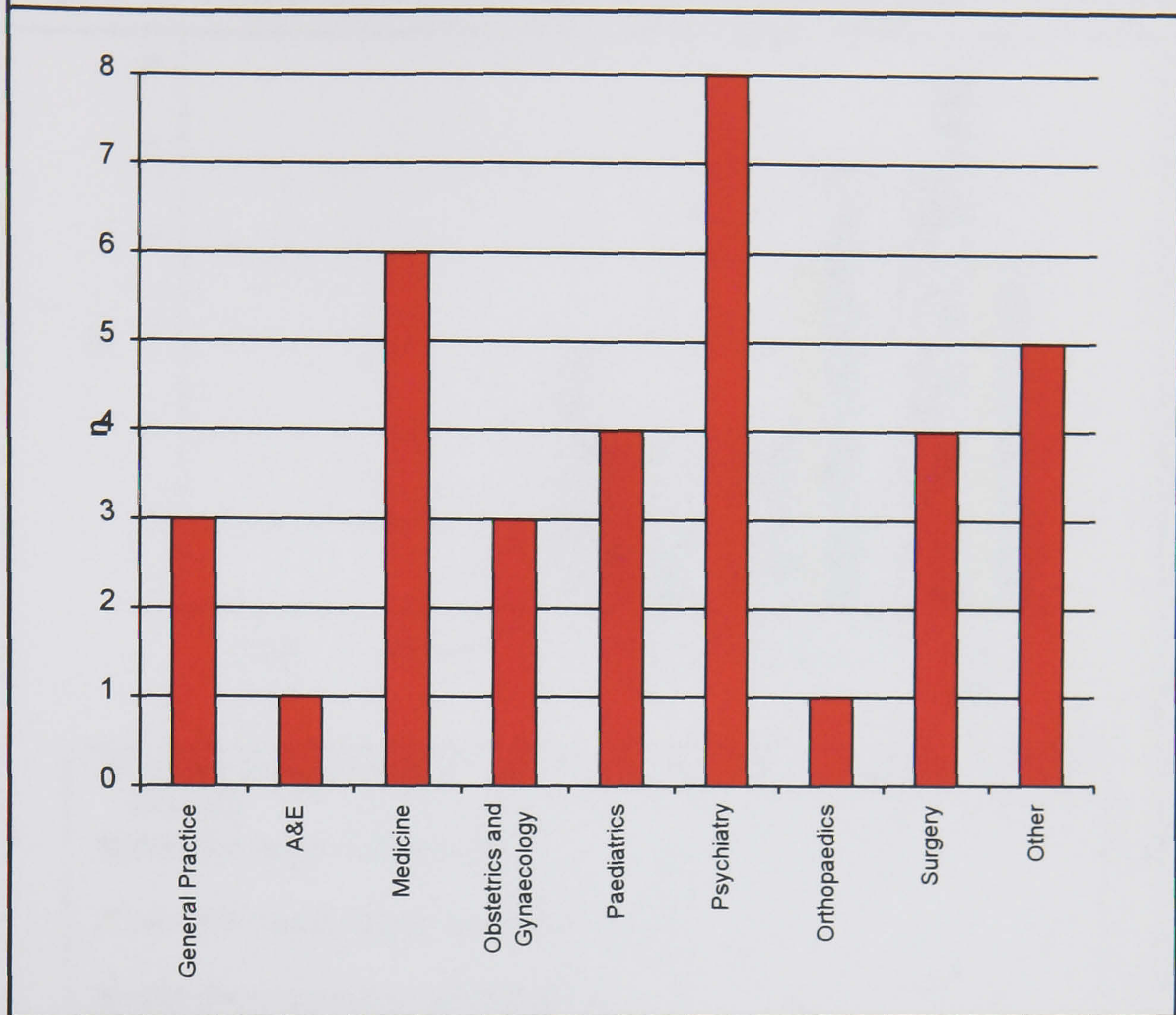


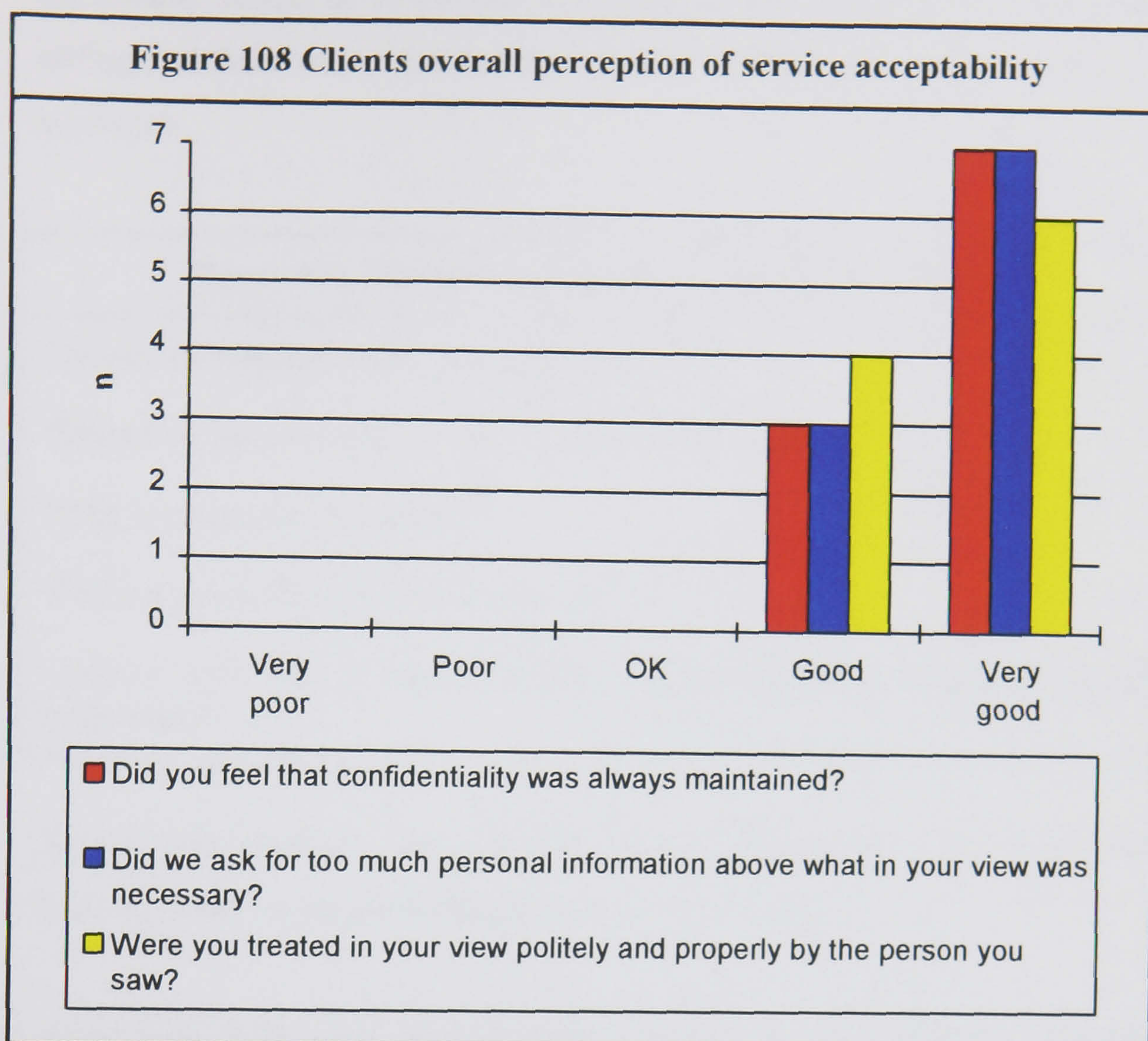
Figure 106 Specialty of doctor presenting for counselling (1996 data only)

Obtaining outcomes about the service has been difficult. Not only are individuals reluctant to divulge information which might identify them e.g. grade and specialty, but many leave their last appointment “pending” once they feel better. Hence outcomes data is extremely limited. However, where appropriate, individuals are asked to complete the GHQ-12 at their first and last counselling sessions. The mean score at presentation is 19 (maximum score is 36, with clinical psychology outpatients scoring a mean of 21.3), and at the end of counselling 6.75 demonstrating a clear improvement in health during the period of counselling. Quality monitoring of the service has also been undertaken, with most individuals considering the service good or very good (Figure 107 and Figure 108). Interestingly, whilst access to the service has shown a geographical bias to Birmingham and the Black Country, some

Figure 107 Clients opinion on the convenience of the service environment



- Did you have any difficulty making an appointment to fit in with your own schedule
- Was the location easy to find
- Was the waiting area/reception adequate
- Was the counselling room adequate



8.2 The stress survival guide

This was a 52 page booklet, written by the author. It attempted to cover some of the theory of stress, a few "self diagnosis" quizzes and some practical ways of managing stress, in an informal way. It also provided a section entitled "sources of help", which gave a comprehensive list of sources of help and advice open to doctors.

The booklet was piloted on a group of 26 PRHOs, along with a psychologist, a psychiatrist, a consultant surgeon and a public health physician. Nine PRHOs provided written comments, and a further four verbal comments. Some of the comments appear in Figure 109. All were pleased that some support was being offered, and felt that the format was acceptable. The majority suggested that the booklet should be distributed to PRHOs in late August/early September,

the booklet should be distributed to PRHOs in late August/early September, stating that there was an information overload in the first couple of weeks for a new job.

Figure 109 Comments about the Stress Survival Guide

"I thought I was the only one who felt like this".

"There is a table on page 27 which I think is wrong". (It was).

"Well written and easy to read".

"I'll keep the draft copy for my own use".

"Another form may be more of a chore than a help". (Referring to keeping a stress diary).

All the senior staff provided feedback, but were divided about the style of the booklet, with two people feeling that it was "too chatty".

As a result of the pilot, the booklet was printed up, and distributed to all the August 1993 intake of PRHOs during late August and early September. A brief questionnaire was included, to ascertain the usefulness of the booklet, with a view to obtaining funding for further years. In the event, it was accepted for publication by the British Medical Association, and was published in late 1994. Unfortunately it was not possible to continue distributing it for free to all PRHOs.

The book, once published was reviewed by several journals, including The Postgraduate Medical Journal and the New Zealand Medical Journal, all of which gave favourable opinions (see appendix 10 for examples). A total of 2082 copies have been sold, with one letter finding its way back to the author (appendix 11).

8.3 How to be an effective house officer course

During the course of this work, close links were forged with the Postgraduate Dean in the South West region. As a result the author was invited to speak on a recently organised course entitled "How to be an Effective House Officer". This course was provided for all final year medical students in the January of the year they were due to graduate, and covered very practical matters such as what to expect on the first day, how to use various pieces of equipment, tax matters, writing CVs and career planning and of course stress. Discussion with the course organisers and final year students revealed that they considered the course to be extremely useful. As a result of this, a suggestion was made to the West Midlands Postgraduate Dean that a similar course might be of use to final year medical students at Birmingham University.

The first West Midlands "How to be an Effective House Officer" course was run in May 1995. For practical reasons it was only possible to run a two day course, rather than the five day course at Bristol University. The course content was designed around the Bristol course, and the results of the first of these surveys suggesting that PRHOs were not sufficiently informed about the organisation of the NHS, political influences, the realities of their house jobs, time management etc. However, due to the rather shortened time allotted to the West Midlands course, it excluded the practical sessions around use of equipment and so on favoured by Bristol. Each course has been evaluated, and the evaluation used to plan the following years course.

The author has undertaken a short presentation on stress in doctors for both courses, presenting research material, and using the BMA's "Stressful Shift" video as a focus for discussion. The presentation was generally received well.

In each of the two courses that have taken place so far, over 90% of students have registered for the course. Most have considered that two days is long

enough to cover the material although suggestions for additions to the programme have included:

- Practical sessions e.g. "what to do when" sessions, such as what to do when a patient has an MI.
- How to apply for house officer posts outside the West Midlands.
- Input from the Medical Defence Societies.
- Working abroad, the pros and cons and how to go about it.

Most participants were prepared to recommend attendance at the course to a friend. An example of the programme is given Appendix 12, and a selection of comments are shown in Figure 110.

Figure 110 General Comments on the How to be an Effective House Officer Course

"Was impressed with 90% of it"

"Emphasis should be placed more on junior doctors lectures, i.e. let them tell you how it really is"

"Virtually all the presentation were of a much higher standard than our lectures"

"There was a lot of overlap which could be reduced"

"Some of the postgraduate details were a bit too early in our careers"

"I missed the second day because the first day was so depressing"

"Tax and contracts was very useful"

"It was useful and very well organised"

"Whole thing was a good idea - shows that the Medical School is concerned with our future career once we have finished our degrees"

8.4 Putting Stress into the Undergraduate Curriculum

Following the review of the undergraduate curricula in British Medical Schools by the General Medical Council,¹⁵⁹ Birmingham University introduced a new year one medical curriculum in 1995, based on the GMC recommendations as outlined in Figure 111.

Figure 111 GMC recommendations on undergraduate medical education

- Reduce excessive burden of factual information in the course - probably by dedicating two-thirds of the course to a common "core" and allowing students to spend one-third of their time on a series of "options" in which they could study selected subjects in more depth.
- Introduce a substantial component of problem based learning
- Provide early clinical contact.
- Ensure that all students develop a firm understanding of the scientific method.

In line with these recommendations it was felt that part of the first semester should be spent learning the principles of adult learning including self-management skills. Several university researchers were gathered together to look at the inclusion of stress as a specific topic within the curriculum. As a result of these discussions, and being able to demonstrate the fact that many PRHOs saw a need for advice on stress management, basic stress management is now taught in small groups early in the first year of Medical School.

Section 9 Limitations and lessons of the work, and the contribution to learning

9.1 Contribution to learning

This work contributes to the body of medical knowledge by providing:

1. further information about stress and morale, using the proxy indicators of job satisfaction and mental and ill health, among a large body of junior doctors working in different hospitals around the UK. This includes a substantial contribution to the OSI normative database, including a large junior doctor sub group.
2. information on the effect that the transition from PRHO to SHO has on the well-being of doctors, in a UK setting (when previous work related largely to Northern America).
3. baseline data on influences and pressure to study medicine and careers advice sought.
4. information on the levels of regret upon choosing a medical career, and the effect that 18 months work experience has on this.
5. junior doctors views on combining a medical career with family life.
6. information on future areas on research, in particular the possible effects of a excessive alcohol consumption in female doctors.
7. further information about drop out rates among PRHOs and SHOs, which contrast markedly with other reports, including the highlighting of difficulties with terminology.
8. information on the adequacy of undergraduate training for working within the NHS, including a broader perspective of training needs than just

clinical tasks. This has been acted upon to provide different (and hopefully better) training for medical students in those areas of weakness.

9. information the adequacy of pre registration training.
10. information that has been acted upon in a variety of arenas, both regional and national, e.g. the setting up of a local counselling and stress management service, the introduction of a how to be an effective house officer course, use made by the Regional Task Force on improving accommodation, mess facilities, provision of gyms etc.
11. a generalisable tool for measuring morale and stress levels among doctors.

9.2 Limitations and lessons of the work

On reflection, this body of work demonstrates the following limitations, and lessons.

1. The design of the questionnaire should be tailored to the respondents e.g. busy people like to tick boxes, languages and style must be appropriate to the audience. The importance of performing pilot studies cannot be over emphasised.
2. Return of postal questionnaires takes much longer than anticipated. Active follow up of non-respondents is necessary if a high response rate is to be achieved. Securing the involvement of key players is vital. Without the support of the Postgraduate Dean, these projects would not have been practical and the results not implemented.
3. Whilst fact finding and research are important for making a case for funding, so is being quick enough to take advantage of a ground swell of

opinion. The publicity and work going on within and without the profession were golden opportunities for publicising this work, providing information about sources of help for doctors who were stressed, and the swapping of ideas. It was important to take advantage of this, particularly in obtaining funding to implement recommendations.

4. Differences in the actual distribution of questionnaires in the multi region study do not allow for direct comparisons of results. A better design might have been to send questionnaires to home addresses for all three surveys, but this would have to be offset against increased costs.
5. Whilst the OSI allows us to determine which individuals are "cases", this does not necessarily correlate with individuals who are clinically impaired, perhaps require help, or perhaps should not be working. Further study of these individuals would have been necessary to determine whether the OSI can be used to directly select individuals who require specific intervention. Whether any instrument should be used in that fashion is another debate again.
6. A prospective study would have been more appropriate to determine the effects of parental influence, careers advice, etc. at entry to medical school, on regret, thoughts of leaving the profession etc. at junior doctor level. The decision whether to use a more scientifically robust prospective study or a less robust retrospective study must be balanced against the primary objective of the survey (to measure morale at a time when it was considered to be an issue), costs and time available.
7. A project has the ability to mushroom. Difficulty lies in recognising which spin-offs are worth pursuing, given other commitments. The spin-offs from this project could not have been undertaken without the appointment of a Research Associate. Equally, keeping on course and keeping to schedule requires an element of self discipline.

8. Reproducibility of the work could have been tested by asking the SHOs taking part in the follow up study to answer exactly the same questionnaire as they asked of House Officers. This would have allowed direct testing of the reproducibility of answers which should have remained constant e.g. what careers advice did you receive prior to Medical School. However, this would have lengthened the questionnaire which may have reduced the response rate.

9. It is always possible to improve on the questionnaire, particularly during analysis.

Appendix 1 Hospitals employing PRHOs for the WM study

- Alexandra Hospital, Redditch
- Burton on Trent General Hospital, Burton
- County Hospital, Hereford
- Dudley Road Hospital, Birmingham
- General Hospital, Birmingham
- George Elliot Hospital, Nuneaton
- Good Hope Hospital, Sutton Coldfield
- Heartland's Hospital, NHS Trust, Birmingham
- Kidderminster General Hospital, Kidderminster
- Manor Hospital, Nuneaton
- New Cross Hospital, Wolverhampton
- North Staffordshire Medical Centre, Stoke on Trent
- Princess Royal Hospital, Telford
- Queen Elizabeth Hospital, Birmingham
- Royal Shrewsbury Hospital, Shrewsbury
- Russell's Hall Hospital, Dudley
- Sandwell District General Hospital
- Selly Oak Hospital, Birmingham
- South Warwickshire District General Hospital, Warwick
- St Cross Hospital, Rugby
- Staffordshire General Infirmary, Stafford
- Walsgrave Hospital, Coventry
- Worcester Royal Infirmary, Worcester

Appendix 2 Hospitals employing PRHOs for the multi-region study

West Midlands Region

- Alexandra Hospital, Redditch
- Burton on Trent General Hospital, Burton
- County Hospital, Hereford
- Dudley Road Hospital, Birmingham
- General Hospital, Birmingham
- George Elliot Hospital, Nuneaton
- Good Hope Hospital, Sutton Coldfield
- Heartland's Hospital, NHS Trust, Birmingham
- Kidderminster General Hospital, Kidderminster
- Manor Hospital, Nuneaton
- New Cross Hospital, Wolverhampton
- North Staffordshire Medical Centre, Stoke on Trent
- Princess Royal Hospital, Telford
- Queen Elizabeth Hospital, Birmingham
- Royal Shrewsbury Hospital, Shrewsbury
- Russell's Hall Hospital, Dudley
- Sandwell District General Hospital
- Selly Oak Hospital, Birmingham
- South Warwickshire District General Hospital, Warwick
- St Cross Hospital, Rugby
- Staffordshire General Infirmary, Stafford
- Walsgrave Hospital, Coventry
- Worcester Royal Infirmary, Worcester

North Trent Region

- Royal Hallamshire Hospital, Sheffield
- Children's Hospital, Sheffield
- Barnsley District General Hospital, Barnsley
- Chesterfield and North Derbyshire Royal Hospital, Chesterfield
- Doncaster Royal Infirmary, Doncaster
- Rotherham District General Hospital, Rotherham
- Bassetlaw District General Hospital, Worksop
- Northern General Hospital, Sheffield

Mid Trent Region

- City Hospital, Nottingham
- Queens Medical Centre, Nottingham
- King's Mill Hospital, Sutton in Ashfield
- County Hospital, Lincoln
- Derby City General Hospital, Derby
- Derbyshire Royal Infirmary, Derby

Oxford Region

- Stoke Mandeville Hospital, Aylesbury
- Horton General Hospital, Banbury
- Wexham Park Hospital, Slough
- Kettering General Hospital, Kettering
- Milton Keynes Hospital, Milton Keynes
- Battle Hospital, Reading
- Northampton General Hospital, Northampton
- John Radcliffe Hospital, Oxford
- Royal Berkshire, Reading
- Wycombe General Hospital, High Wycombe
- Amersham General Hospital, Amersham

South West Region

- Bristol Royal Infirmary, Bristol
- Frenchay Hospital, Bristol
- West Cornwall Hospital, Penzance
- Gloucestershire Royal Hospital, Gloucester
- Yeovil District Hospital, Yeovil
- Royal Cornwall Hospital (Treliske), Truro
- Southmead Hospital, Bristol
- Torbay Hospital, Torquay
- Weston General Hospital, Weston-super-Mare
- Derriford Hospital, Plymouth
- Taunton and Somerset Hospital, Taunton
- North Devon District Hospital, Barnstable

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Appendix 3 The questionnaire used in the two PRHO studies

SURVEY

Morale of Junior Doctors

1993

SURVEY TO DETERMINE THE MORALE OF JUNIOR DOCTORS WORKING WITHIN THE
WEST MIDLANDS REGION

BACKGROUND

There are many anecdotal reports of junior doctors leaving the medical profession to pursue other careers. This, along with concerns about the morale of juniors, is causing some anxiety. We are attempting to find out just what the state of morale is within the region, and to assess how many people have considered leaving the profession. As part of this, we need to hear your views on a variety of issues, and we would be very grateful if you would take the time to complete this questionnaire.

The questionnaire consists of two parts. The first deals with morale and biographical information, and the second part with job satisfaction and health.

STATEMENT OF CONFIDENTIALITY

The questionnaire is not anonymous, but identification codes are known only to me. I wish to assure you that your replies will remain strictly confidential. They will be held at the Institute of Public and Environmental Health and nothing identifiable to you will be available to anybody who is in a position to influence your career.

Many thanks for your help.

Dr Eleanor Harries
Research Fellow
Institute of Public and Environmental Health
The University of Birmingham
FREEPOST BM2843
Birmingham
B15 1BR

MORALE OF JUNIOR DOCTORS QUESTIONNAIRE

Please don't be put off by the length of the questionnaire - most questions need only a tick for an answer - and it should only take about 20 minutes to complete.

INSTRUCTIONS

- * Please answer the questionnaire after an evening/weekend off. We would rather you felt awake when you answer!
- * Please read the questions carefully before answering and be honest in your response.
- * Most questions only require you to tick a box or circle a number for your response. Some questions are presented with answer scales numbered from 1-6 to indicate your response. These scales have statements printed at their extremities (points 1 and 6) and you are asked to circle a number which best represents your answer for that particular question. Take the following question and scale for example:

Do you enjoy going to the cinema? (please circle a number)

No	Yes slightly	Yes, very much
1	2 3 4 5 6	

If your answer is no, then you would circle 1; if it is yes then you would circle 2 to 6, depending on how much you enjoyed going to the cinema, 2 being only slightly, increasing to 6 for very much.

- * In some instances it will not be necessary to answer all questions. A filter system is incorporated to ensure that you only answer questions which are applicable to your circumstances. The filter takes the form of a statement which usually reads, for example, "**If yes, go to Q3; if no, go to Q5**" or **→ go to C4**. These are printed in bold on the questionnaire to make them easy to follow.
- * Please check the questionnaire after you have finished to ensure that you have answered all applicable questions. If you wish to make additional comments please give them at the end of the questionnaire or on a separate piece of paper.
- * Please return your completed questionnaire to me using the attached pre-paid (NO STAMP NEEDED) self addressed envelope by April 9th 1993

PART 1

SECTION A: ABOUT YOURSELF

A1. How old are you? *(please state)*

.....

A2. Gender? *(please tick)*

Male ¹ Female ²

A3. Marital status? *(please tick)*

- Single ¹
- Married ²
- Divorced ³
- Cohabiting ⁴
- Widowed ⁵
- Separated ⁶

A4. Do you have any children? *(please tick)*

Yes ¹ No ²

A5. Ethnic group? *(please tick)*

- White ¹
- Black (Caribbean) ²
- Black (African) ³
- Black other - please state ⁴
- Indian ⁵
- Pakistani ⁶
- Bangladeshi ⁷
- Chinese ⁸
- Other - please state ⁹

A6. What year did you enter medical school? *(please state)*

.....

A7. Did you take time out between leaving school and starting Medical School? *(please tick)*

Yes ¹ No ²

A8. Have you taken a degree before entering medical school? *(please tick)*

Yes ¹ No ²

A9. Have you intercalated a degree? *(please tick)*

Yes ¹ No ²

A10. Have you ever had to resit an exam at medical school? *(please tick)*

Yes ¹ No ²

PART 1

SECTION B: ABOUT YOUR PARENTS

B1. What type of job does/did your father hold? eg doctor, shopkeeper, labourer etc? *(please state)*

.....

B2. What work does/did he actually do? eg fits circuit boards in factory, designs ships etc? *(please state)*

.....

B3. Is/was he self-employed? *(please tick)* Yes ¹ No ²

B4. Is/was he retired? *(please tick)* Yes ¹ No ²

B5. Is he deceased? *(please tick)* Yes ¹ No ²

B6. What type of job does/did your mother hold? *(please state)*

.....

B7. What work does/did she actually do? *(please state)*

.....

B8. Is/was she self-employed? *(please tick)* Yes ¹ No ²

B9. Is/was she retired? *(please tick)* Yes ¹ No ²

B10. Is she deceased? *(please tick)* Yes ¹ No ²

B11. If either/both of your parents are medical doctors, which specialty are they involved in? *(please tick)*

	Hospital	General Practice	Other - please specify
Father			
Mother			

B12. Did your parents influence your decision to study medicine? *(please circle a number)*

No Yes slightly Yes, very much

1 2 3 4 5 6

PART 1

SECTION C: INFLUENCES

C1. Are any of your relatives medical doctors? *(please tick)*

- Yes ¹ → go to C2
 No ² → go to C4

C2. What relation to you are they? *(please state)*

C3. Did having a doctor in the family influence your decision to study medicine?
(please circle a number)

- | | | | | | | |
|----|--------------|---|---|---|---|----------------|
| No | Yes slightly | | | | | Yes, very much |
| 1 | 2 | 3 | 4 | 5 | 6 | |

C4. Did anyone else influence your decision to study medicine? *(please tick)*

- Yes ¹ → go to C5
 No ² → go to Section D

C5. If YES, who? *(please tick as many as apply)*

- | | |
|-----------------------|---------------------------------------|
| Friends | <input type="checkbox"/> ¹ |
| Family Doctor | <input type="checkbox"/> ² |
| School Career Service | <input type="checkbox"/> ³ |
| Other Career Service | <input type="checkbox"/> ⁴ |
| Teacher | <input type="checkbox"/> ⁵ |
| Other (specify below) | <input type="checkbox"/> ⁶ |
-

PART 1SECTION D: ADVICE

D1. Did your school provide a careers advice service for pupils?
(please tick)

Yes ¹ → go to D2
No ² → go to D5

D2. Did you receive any formal careers advice from the school career service? (please tick)

Yes ¹ No ²

D3. Did you receive advice about a career in medicine from the school career service? (please tick)

Yes ¹ → go to D4
No ² → go to D5

D4. Was this advice volunteered as a matter of course by the school careers service, or did you actively seek advice from them on the subject? (please tick)

Volunteered ¹ Actively sought ²

D5. Was it suggested to you, by your school, that a career in medicine would be 'a good idea'? (please tick)

Yes ¹ No ²

D6. Did your school arrange for you to spend time with a local doctor, either a GP or a Consultant? (please tick)

Yes ¹ No ²

D7. Did someone outside of school arrange for you to spend time with a local doctor? (please tick)

Yes ¹ No ²

D8. Did you have the opportunity to spend time with a House Officer? (please tick)

Yes ¹ No ²

D9. Were you aware of the following BEFORE applying to medical school? (please tick)

Length of under-graduate course
House Officer's hours
Length of post-graduate training

Yes ¹ No ²
Yes ¹ No ²
Yes ¹ No ²

D10. Did you read any publications about a career in medicine eg BMA publications such as 'Learning Medicine' before applying to medical school? (please tick)

Yes ¹ No ²

PART 1

SECTION E: PRESSURE TO STUDY MEDICINE

E1. Do you feel that you have been pressurised into studying medicine?
(please circle a number)

No	Yes slightly				Yes, very much
1	2	3	4	5	6

If yes go to E2 otherwise go to Section F

E2. By whom do you feel that you have been pressurised?
(Please tick as many as apply)

Friends	<input type="checkbox"/>	1
Parents	<input type="checkbox"/>	2
School	<input type="checkbox"/>	3
Other (specify below)	<input type="checkbox"/>	4

.....

PART 1

SECTION F: WHY CHOOSE MEDICINE

F1. How old were you when you first decided that you wanted to be a doctor? *(please state)*

F2. Did you ever consider studying anything other than medicine? *(please tick)* Yes ¹ No ²

F3. When you applied to medical school, why did you wish to study medicine? *(please tick as many as apply)*

- To help people ¹
 - I wanted to be a vet but was told I wasn't good enough ²
 - For the money ³
 - To save lives ⁴
 - I always wanted to be a doctor ⁵
 - For its professionalism ⁶
 - I was good at science at school ⁷
 - Parental pressure/expectations ⁸
 - To have power ⁹
 - I was unable to pursue my original choice ¹⁰
 - Enjoy working with people ¹¹
 - Other *(please specify below)* ¹²
-
-

F4. How strong was your desire to study medicine? *(please circle a number)*

Very weak Very strong

1 2 3 4 5 6

F5. Do you regret your decision to pursue a career in medicine so far? *(please circle a number)*

No Yes slightly Yes, very much

1 2 3 4 5 6

If yes go to F6, otherwise go to F7

PART 1

F6. Why do you regret your decision to pursue a career in medicine? *(Please tick as many as apply)*

- The hours are too long 1
- There's too much responsibility 2
- Professional exams too hard 3
- Medicine interferes with the rest
of my life too much 4
- The pay is poor 5
- Other (please specify below) 6

.....

F7. Did you contemplate leaving Medical School prior to graduation? *(please tick)*

- Yes 1 → go to F8
- No 2 → go to Section G

F8. At what stage did you contemplate leaving? *(please tick)*

- 1st year 1
- 2nd year 2
- 3rd year 3
- 4th year 4
- 5th year 5

F9. How seriously did you contemplate leaving? *(please circle a number)*

- Not very seriously Very seriously
- 1 2 3 4 5 6

F10. What made you continue your studies? *(please tick as many as apply)*

- I did better than expected in my exams 1
- I didn't know what else to do 2
- I couldn't transfer for financial reasons 3
- I couldn't be bothered to change 4
- Other (please specify below) 5

.....

PART 1

SECTION G: YOUR FUTURE CAREER

G1. Did you receive any career guidance at medical school PRIOR TO GRADUATION? (please tick)

Yes ¹ → go to G2
 No ² → go to G3

G2. Was this advice volunteered as a matter of course, or did you actively seek advice? (please tick)

Volunteered ¹ Actively sought ²

G3. Have you received any career guidance in your pre-registration post(s)? (please tick) Yes ¹ No ²

G4. Do you intend to take up a Senior House Officer post? (please tick) Yes ¹ No ²

G5. Do you intend to pursue a career in medicine beyond SHO level? (please tick) Yes ¹ No ²

G6. What career path would you like to follow?

Hospital ¹ state speciality if known, put nk if unknown

 General Practice ²
 Don't know ³
 Other ⁴ please state

G7. How did you decide on the career path you would like to follow?

.....

G8. Do you think that you will realistically be able to follow the career path of your choice? (please tick)

Yes ¹ → go to G11
 No ² → go to G9

G9. Why do you think you'll be unable to follow the career path of your choice?

.....

PART 1

G10. What career path might you possibly follow as an alternative to your first choice?

.....

G11. Would you consider working part-time? *(please tick)* Yes ¹ No ²

G12. Do you feel that a doctor's post-graduate training is too long?
(please circle a number)

Too short

Far too long

1 2 3 4 5 6

PART 1

SECTION H: HOW YOU VIEW MEDICINE

H1. A House Officers basic pay is £13,000. Do you consider this to be: *(please circle a number)*

Very poor			Very good		
1	2	3	4	5	6

H2. Would you ever leave medicine AT HOUSE OFFICER LEVEL because of any of the following reasons: *(please circle)*

Inadequate Pay	Yes <input type="checkbox"/>	No <input type="checkbox"/>	1	2
Poor Working Conditions	Yes <input type="checkbox"/>	No <input type="checkbox"/>	1	2
Long Hours	Yes <input type="checkbox"/>	No <input type="checkbox"/>	1	2
Managerial Constraints	Yes <input type="checkbox"/>	No <input type="checkbox"/>	1	2
Other (please specify below)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	1	2

.....

.....

H3. Do you consider that the job satisfaction offered by medicine AT HOUSE OFFICER LEVEL is: *(please circle a number)*

Very low			Very high		
1	2	3	4	5	6

H4. Do you consider that the job status offered by medicine AT HOUSE OFFICER LEVEL is: *(please circle a number)*

Very low			Very high		
1	2	3	4	5	6

H5. A Consultants basic pay is £37,905. Do you consider this to be: *(please circle a number)*

Very poor			Very good		
1	2	3	4	5	6

H6. Do you consider that the job satisfaction offered by medicine AT CONSULTANT LEVEL is: *(please circle a number)*

Very low			Very high		
1	2	3	4	5	6

PART 1

H7. Do you consider that the job status offered by medicine AT CONSULTANT LEVEL is: *(please circle a number)*

Very low	Very high
1 2 3 4 5 6	

H8. A GP Principal's average pay is £40,010. Do you consider this to be: *(please circle a number)*

Very poor	Very good
1 2 3 4 5 6	

H9. Do you consider that the job satisfaction offered by medicine AT GP PRINCIPAL LEVEL is: *(please circle a number)*

Very low	Very high
1 2 3 4 5 6	

H10. Do you consider that the job status offered by medicine AT GP PRINCIPAL LEVEL is: *(please circle a number)*

Very low	Very high
1 2 3 4 5 6	

PART 1SECTION I: MEDICINE AND THE FAMILY

11. Is a career in medicine more suited to: *(please tick one)*

Male ¹
 Female ²
 Either Sex ³

12. Is it possible for a man to combine a family life with a career in medicine?
(please circle a number)

No Yes slightly Yes, very much
 1 2 3 4 5 6

13. Is it possible for a woman to combine a family life with a career in medicine?
(please circle a number)

No Yes slightly Yes, very much
 1 2 3 4 5 6

14. Do you know about opportunities for part-time training in medicine? *(please tick)* Yes ¹ No ²

15. Do you feel that men progress up the career ladder faster than women? *(please circle a number)*

No Yes slightly Yes, very much
 1 2 3 4 5 6

16. Do you feel that regularly changing jobs to progress up the career ladder is a source of stress? *(please circle a number)*

No Yes slightly Yes, very much
 1 2 3 4 5 6

PART 1

SECTION J: DO YOU WISH TO LEAVE MEDICINE

J1. Do you regret choosing a career in medicine? *(please circle a number)*

No	Yes slightly					Yes, very much
1	2	3	4	5	6	

If yes go to J2, otherwise go to J3

J2. Why do you regret your decision to pursue a career in medicine? *(please tick as many as apply)*

- Not enough time for patient care 1
- There's too much responsibility 2
- The pay is poor 3
- I don't like the hierarchical structure 4
- The training is too long 5
- There are too many exams to take 6
- It's not as interesting as I thought 7
- Too stressful 8
- The hours are too long 9
- I am constantly exhausted 10
- I don't get any job satisfaction from medicine 11
- Medicine interferes with the rest of
your life too much 12
- There's no status to being
a doctor any more 13
- Career progression is too slow 14
- Other (please specify below) 15

.....

PART 1

J3. Have you taken steps towards leaving the profession? *(please tick)*

- Yes ¹ → go to J4
 No ² → go to J6

J4. What steps have you taken towards leaving the profession? *(please tick as many as apply)*

- Reading job adverts in the press regularly ¹
 Requesting job descriptions/application forms ²
 Applying for jobs outside of the NHS ³
 Applying to recruitment agencies ⁴
 Undergoing career counselling by
 someone outside of the NHS ⁵
 Applied for re-training through a Government
 scheme (eg graduate entry into teaching) ⁶
 Applied to study for another degree ⁷
 Other (please specify below) ⁸

.....

J5. What type of job would you consider doing? *(please specify below)*

.....

J6. If you had your time again, would you still study medicine? *(please circle a number)*

- | | | | | | |
|----|--------------|---|---|---|-----------------|
| No | Yes probably | | | | Yes, definitely |
| 1 | 2 | 3 | 4 | 5 | 6 |

If No go to J7, otherwise go to Section K

PART 1

J7. Why WOULDN'T you study medicine if you had your time again? *(please tick as many as apply)*

- Not enough time for patient care 1
- There's too much responsibility 2
- The pay is poor 3
- I don't like the hierarchical structure 4
- The training is too long 5
- There are too many exams to take 6
- It's not as interesting as I thought 7
- Too stressful 8
- The hours are too long 9
- I am constantly exhausted 10
- I don't get any job satisfaction from medicine 11
- Medicine interferes with the rest of
your life too much 12
- There's no status to being
a doctor any more 13
- Career progression is too slow 14
- Other (please specify below) 15

.....

.....

PART 1

SECTION K: YOU AND YOUR MORALE

K1. What's your morale like? *(please circle a number)*

Very low						Very high
1	2	3	4	5	6	

K2. How much work do you have to do? *(please circle a number)*

Far too little						Far too much
1	2	3	4	5	6	

K3. How easy do you think it will be for you to climb the career ladder in medicine?
(please circle a number)

Very difficult						Very easy
1	2	3	4	5	6	

K4. Do you feel that you belong to part of a team at work? *(please circle a number)*

No	Yes slightly				Yes, very much
1	2	3	4	5	6

If yes go to K5. otherwise go to K6

K5. Which team do you feel that you belong to : *(please tick one)*

Doctors' team	<input type="checkbox"/> 1
Multidisciplinary team	<input type="checkbox"/> 2
Both teams	<input type="checkbox"/> 3

PART 1

<i>Please circle a number</i>	No	Yes slightly				Yes very much
	1	2	3	4	5	6
K6. Are you committed to a career in medicine?	1	2	3	4	5	6
K7. Are you entirely happy in your profession?	1	2	3	4	5	6
K8. Do you feel underworked?	1	2	3	4	5	6
K9. Do you feel you have good support from your boss?	1	2	3	4	5	6
K10. Do you feel stressed?	1	2	3	4	5	6
K11. Do you feel in control of your job?	1	2	3	4	5	6
K12. Do you feel isolated (lonely, on your own) at work?	1	2	3	4	5	6
K13. Do you receive feedback from your boss?	1	2	3	4	5	6
K14. Do you find your job satisfying?	1	2	3	4	5	6
K15. Do you feel that your skills are currently underutilised?	1	2	3	4	5	6
K16. Do you feel that you have good support from nursing staff?	1	2	3	4	5	6
K17. Do you feel that you have good support from your hospital management?	1	2	3	4	5	6
K18. Do you feel a sense of camaraderie with other pre-registration house officers working in your hospital?	1	2	3	4	5	6
K19. Do you feel that there is a scramble for jobs in order to advance a career in medicine?	1	2	3	4	5	6
K20. Do you think that being a doctor gives you security of employment?	1	2	3	4	5	6
K21. Does the possibility of litigation concern you?	1	2	3	4	5	6

PART 1

SECTION L: IMPROVEMENTS

L1. Do you feel that your under-graduate training adequately prepared you for your role as a pre-registration house officer? *(please circle a number)*

No	Yes slightly					Yes, very much
1	2	3	4	5	6	

If you feel your training was inadequate go to L2, otherwise go to L3

L2. In what way do you feel that you were inadequately prepared for your role as a pre-registration house officer? *(please specify below)*

.....

.....

.....

L3. Do you feel that your under-graduate training adequately prepared you for working within the NHS? *(please circle a number)*

No	Yes slightly					Yes, very much
1	2	3	4	5	6	

If you feel your training was inadequate go to L4, otherwise go to L5

L4. In what way do you feel that you were inadequately prepared for working within the NHS? *(please specify below)*

.....

.....

L5. Do you think that it would be useful to receive advice on the following at medical school in preparation for your pre-registration year? *(please tick)*

Organisation of the NHS	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Politics and the NHS	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Time management	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Pay deals	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Dealing with managers	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stress management	Yes <input type="checkbox"/>	No <input type="checkbox"/>

L6. What other advice would you have found useful in preparation for your pre-registration year? *(please specify)*

.....

.....

PART 1

L7. Would you find it useful to receive individual career counselling in your pre-registration year? *(please tick)* Yes ¹ No ²

L8. Who do you think should be responsible for career counselling during the pre-registration year? *(please tick)*

- Supervising consultant ¹
 - Clinical tutor ²
 - College tutor ³
 - Post Graduate dean ⁴
 - Trained external counsellor ⁵
 - Medical personnel officer ⁶
 - Other (please specify below) ⁷
-

L9. Would you find it useful to receive stress counselling in your pre-registration year? *(please tick)* Yes ¹ No ²

L10. Who do you think should be responsible for stress counselling during the pre-registration year? *(please tick)*

- Supervising consultant ¹
 - Clinical tutor ²
 - College tutor ³
 - Post Graduate dean ⁴
 - Trained external counsellor ⁵
 - Medical personnel officer ⁶
 - Other (please specify below) ⁷
-

PART 1

SECTION M: YOU AND YOUR HOURS OF WORK

M1. Do you work full time? *(please tick)* Yes ¹ No ²

M2. Which of the following do you work? *(please tick)*

- Full shift system ¹
- Partial shift system ²
- On call rota ³

M3. Please state how much overtime you are contracted to work eg 20 Additional Duty Hours (ADH) or 12 UMTs:

.....

M4. Please state the maximum length of on-call duty you work eg 56 hours:

.....

M5. Do you feel the hours you work are too long? *(please circle a number)*

- | | | | | | |
|----|--------------|---|---|---|----------------|
| No | Yes slightly | | | | Yes, very much |
| 1 | 2 | 3 | 4 | 5 | 6 |

M6. What type of hospital are you placed in? *(please tick)*

- District hospital ¹
- Teaching hospital ²

M7. Is it an NHS Trust Unit? *(please tick)* Yes ¹ No ²

M8. From which university did you graduate? *(please state)*

.....

PART 1

SECTION N: YOU AND YOUR LIFE-STYLE

N1. Do you smoke? *(please circle)*

- Yes ¹ → go to N2
No ² → go to N4

N2. How much do you smoke? *(please give quantities)*

- Cigarettes per day
..... Cigars per day
..... grams tobacco per week

N3. Have you noticed changes in how much you smoke since you qualified? *(please tick)*

- Decreased ¹
Same as usual ²
Increased ³

N4. Do you drink alcohol? *(please tick)*

- Yes ¹ → go to N5
No ² → go to N7

N5. On average how many units do you drink per week? (1 unit is a half-pint of beer, or a glass of wine or one measure of spirits)

Please give the number

N6. Have you noticed changes in the amount of alcohol you drink since you qualified? *(please tick)*

- Decreased ¹
Same as usual ²
Increased ³

N7. How many hours of vigorous exercise do you take a week outside of work? *(please circle)*

0 <1 1 2 3 4 5 >5

PART 1

N8. Have you noticed changes in the amount of exercise you take since you qualified? *(please circle)*

- Decreased ¹
- Same as usual ²
- Increased ³

N9. Do you have access to freshly prepared meals (not precooked chilled/microwave food) at your hospital when working outside of normal hours? *(please tick)* Yes ¹ No ²

N10. What sort of food do you normally eat when on-call? *(please tick as many as apply)*

- Freshly prepared meals ¹
 - Precooked chilled/microwave meals ²
 - Sandwiches/pastries eg pasties, sausage rolls ³
 - Take-away meals eg Chinese, fish and chips etc ⁴
 - Snacks eg chocolate, crisps, nuts ⁵
 - Other (please specify below) ⁶
-

N11. Do you live in hospital accommodation all the time (not just when on-call)? *(please tick)*

- Yes ¹ → go to N12
- No ² → go to N13

N12. How would you rate the standard of your hospital accommodation? *(please circle a number)*

- Very poor Very good
- 1 2 3 4 5 6

N13. How would you rate the standard of on-call rooms provided by your hospital? *(please circle a number)*

- Very poor Very good
- 1 2 3 4 5 6

N14. How would you rate the mess facilities in your hospital? *(please circle a number)*

- Very poor Very good
- 1 2 3 4 5 6

PART 2



JOB SATISFACTION AND HEALTH QUESTIONNAIRE

INSTRUCTIONS

We would like you to please:-

- * answer all the questions
- * give your first and natural answer, be accurate and honest
- * work quickly and efficiently through the questionnaire
- * base your answers on how you have felt during the last three months
- * if you make a mistake, cross it out and make your new answer
- * check each questionnaire to ensure that you have answered all the items

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How you feel about your job

This questionnaire is concerned with the extent to which you feel satisfied or dissatisfied with your job. Try not to be put off by any other reactions you may have – simply rate the items against the satisfaction/dissatisfaction scale provided.

▶ Please answer by circling the number of your answer on the scale shown:

Very much satisfaction 6
 Much satisfaction 5
 Some satisfaction 4
 Some dissatisfaction 3
 Much dissatisfaction 2
 Very much dissatisfaction 1



1	Communication and the way information flows around your organisation	6	5	4	3	2	1
2	The relationships you have with other people at work	6	5	4	3	2	1
3	The feeling you have about the way you and your efforts are valued	6	5	4	3	2	1
4	The actual job itself	6	5	4	3	2	1
5	The degree to which you feel 'motivated' by your job	6	5	4	3	2	1
6	Current career opportunities	6	5	4	3	2	1
7	The level of job security in your present job	6	5	4	3	2	1
8	The extent to which you may identify with the public image or goals of your organisation	6	5	4	3	2	1
9	The style of supervision that your superiors use	6	5	4	3	2	1
10	The way changes and innovations are implemented	6	5	4	3	2	1
11	The kind of work or tasks that you are required to perform	6	5	4	3	2	1
12	The degree to which you feel that you can personally develop or grow in your job	6	5	4	3	2	1
13	The way in which conflicts are resolved in your company	6	5	4	3	2	1
14	The scope your job provides to help you achieve your aspirations and ambitions	6	5	4	3	2	1
15	The amount of participation which you are given in important decision-making	6	5	4	3	2	1
16	The degree to which your job taps the range of skills which you feel you possess	6	5	4	3	2	1
17	The amount of flexibility and freedom you feel you have in your job	6	5	4	3	2	1
18	The psychological 'feel' or climate that dominates your organisation	6	5	4	3	2	1
19	Your level of salary relative to your experience	6	5	4	3	2	1
20	The design or shape of your organisation's structure	6	5	4	3	2	1
21	The amount of work you are given to do whether too much or too little	6	5	4	3	2	1
22	The degree to which you feel extended in your job	6	5	4	3	2	1



1	2	3	4	5	6
---	---	---	---	---	---

How you assess your current state of health

Part A of this questionnaire focuses on feelings and behaviour and how these are affected by the pressure you perceive in your job. *Part B* is concerned more specifically with the frequency of occurrence of manifestly physical problems.

The questions assume that you can assess your health with a fair degree of accuracy and also that you will be honest in your responses.

► Please answer by circling your position on each answering scale. Consider the questions with reference to how you have felt over the last three months.

Part A How you feel or behave



1	Would you say that you tended to be a rather overconscientious person who worries about mistakes or actions that you may have taken in the past, such as decisions?	Very true						Very untrue
		6	5	4	3	2	1	
2	During an ordinary working day are there times when you feel unsettled and upset though the reasons for this might not always be clearly obvious?	Frequently						Never
		6	5	4	3	2	1	
3	When you consider your level and quality of job performance recently, do you think that your contribution has been significantly useful?	Very useful						Not really
		6	5	4	3	2	1	
4	As difficult problems occur at work that require your attention, do you find that you can think as clearly and as concisely as you used to or do you find your thoughts becoming 'muddled'?	Definitely think not as clearly						Definitely think as clearly
		6	5	4	3	2	1	
5	When the pressure starts to mount at work, can you find a sufficient store or reserve of energy which you can call upon at times when you need it that spurs you on into action?	Lots of energy						Not much energy
		6	5	4	3	2	1	
6	Are there times at work when you feel so exasperated that you sit back and think to yourself that 'life is all really just too much effort'?	Often						Never
		6	5	4	3	2	1	
7	As you do your job have you noticed yourself questioning your own ability and judgment and a decrease in the overall confidence you have in yourself?	No noticeable decrease						Noticeable decrease
		6	5	4	3	2	1	
8	Generally and at work, do you usually feel relaxed and at ease or do you tend to feel restless, tense and find it difficult to 'settle down'?	Relaxed						Tense
		6	5	4	3	2	1	
9	If colleagues and friends behave in an aloof way towards you, do you tend to worry about what you may have done to offend them as opposed to just dismissing it?	Definitely worry						Definitely do not worry
		6	5	4	3	2	1	
10	If the tasks you have implemented, or jobs you are doing, start to go wrong do you sometimes feel a lack of confidence, and panicky, as though events were getting out of control?	Often						Never
		6	5	4	3	2	1	
11	Do you feel confident that you have properly identified and efficiently tackled your work or domestic problems recently?	Have 'faced up' properly						Have not 'faced up' properly
		6	5	4	3	2	1	
12	Concerning work and life in general, would you describe yourself as someone who is bothered by their troubles or a 'worrier'?	Definitely yes						Definitely no
		6	5	4	3	2	1	
13	When trying to work do you find yourself disproportionately irritated by relatively minor distractions such as answering the telephone or being interrupted?	Very irritated						Not irritated at all
		6	5	4	3	2	1	
14	As time goes by, do you find yourself experiencing fairly long periods in which you feel rather miserable or melancholy for reasons that you simply cannot 'put your finger on'?	Often						Never
		6	5	4	3	2	1	
15	Would you say you had a positive frame of mind in which you feel capable of overcoming your present or any future difficulties and problems you might face such as resolving dilemmas or making difficult decisions?	Definitely yes						Definitely no
		6	5	4	3	2	1	
16	When you think about your past events do you feel regretful about what has happened, the way you have acted, decisions you have taken, etc?	No regrets						Lots of regrets
		6	5	4	3	2	1	
17	Would you describe yourself as being a rather 'moody' sort of person who can become unreasonable and bad tempered quickly?	Definitely yes						Definitely no
		6	5	4	3	2	1	
18	Are there times at work when the things you have got to deal with simply become too much and you feel so overtaxed that you think you are 'cracking-up'?	Definitely yes						Definitely no
		6	5	4	3	2	1	

1



Part B Your physical health

Examine the list below and indicate the frequency of occurrence of these ailments over the last three months.

▶ Please answer by circling your answer on the scale shown.

Very frequently	6
Frequently	5
Sometimes	4
Infrequently	3
Very infrequently	2
Never	1

1	Inability to get to sleep or stay asleep	6	5	4	3	2	1
2	Headaches and pains in your head	6	5	4	3	2	1
3	Indigestion or sickness	6	5	4	3	2	1
4	Feeling unaccountably tired or exhausted	6	5	4	3	2	1
5	Tendency to eat, drink or smoke more than usual	6	5	4	3	2	1
6	Decrease in sexual interest	6	5	4	3	2	1
7	Shortness of breath or feeling dizzy	6	5	4	3	2	1
8	Decrease in appetite	6	5	4	3	2	1
9	Muscles trembling (e.g. eye twitch)	6	5	4	3	2	1
10	Pricking sensations or twinges in parts of your body	6	5	4	3	2	1
11	Feeling as though you do not want to get up in the morning	6	5	4	3	2	1
12	Tendency to sweat or a feeling of your heart beating hard	6	5	4	3	2	1

1

There is no scoring key for this scale

Appendix 4 Covering letter from the Postgraduate Dean



THE UNIVERSITY
OF BIRMINGHAM

Board of Postgraduate Medical
and Dental Education

The Medical School
Edgbaston
Birmingham B15 2TT
United Kingdom
Telephone 021 414 6892
Fax 021 414 4036
Telex 333762 UOBHAM G

Regional Postgraduate Dean
Mr J. G. Temple C&M FRCS(Ed)
FRCS(Eng)

Regional Deputy Dean
Dr R. Cockel MA MB FRCP

Business Manager
Ms C. O'Regan BSc HDip in Ed
MSc MBA

March 1993

Dear

SURVEY RE THE MORALE OF JUNIOR DOCTORS

I am writing to ask you to take part in a survey to determine levels of morale amongst Junior Doctors. The survey has been arranged because of increasing numbers of reports about doctors leaving medicine early on in their careers. The survey forms part of a wider field of research being conducted by the Institute of Public and Environmental Health and the Board of Postgraduate Medical and Dental Education at the University of Birmingham.

If we are to use the results of the survey to bring about change, we need replies from each and every one of you!

Although the questionnaire looks long, it's been designed so that the majority of questions need only ticks as answers - it should take you no longer than 25 minutes to complete. Once completed, please return the questionnaire to the Institute using the supplied "Freepost" (NO STAMP NEEDED) self addressed envelope by 9th April 1993.

We know that many House Officers feel very low after being on-call, so I ask that you answer this after an evening/weekend off. Also, you may be able to pick out the 'correct' answer to some of the questions - please answer as truthfully as possible, or the results will be invalidated.

Finally, I'd like to assure you that your answers will remain absolutely confidential.

Yours sincerely



Mr John G Temple

ENC.

Appendix 5 The questionnaire used in the SHO study

SURVEY

Morale of SHOs

1994

SURVEY TO DETERMINE THE MORALE OF JUNIOR DOCTORS WORKING WITHIN THE
WEST MIDLANDS REGION

BACKGROUND

Anecdotal reports of junior doctors leaving the medical profession early on in their careers resulted in us surveying the morale of PRHOs working within the West Midlands Region last year. We are now asking the same people, now SHOs, to complete a similar questionnaire to see if an increase in seniority changes how they feel about their career and profession.

As a respondent of last years survey we, once again, need to hear your views on a variety of issues, and we would be very grateful if you would take the time to complete this questionnaire.

The questionnaire consists of two parts. The first deals with morale and biographical information, and the second part with job satisfaction and health.

STATEMENT OF CONFIDENTIALITY

The questionnaire is not anonymous, but identification codes are known only to me. I wish to assure you that your replies will remain strictly confidential. They will be held at the Institute of Public and Environmental Health and nothing identifiable to you will be available to anybody who is in a position to influence your career.

Many thanks for your help.

Dr Eleanor Harries
Research Fellow
Institute of Public and Environmental Health
The University of Birmingham
FREEPOST BM2843
Birmingham
B15 1BR

MORALE OF JUNIOR DOCTORS QUESTIONNAIRE

Please don't be put off by the length of the questionnaire - most questions need only a tick for an answer - and it should only take about 20 minutes to complete.

INSTRUCTIONS

- * Please answer the questionnaire after an evening/weekend off. We would rather you felt awake when you answer!
- * Please read the questions carefully before answering and be honest in your response.
- * Most questions only require you to tick a box or circle a number for your response. Some questions are presented with answer scales numbered from 1-6 to indicate your response. These scales have statements printed at their extremities (points 1 and 6) and you are asked to circle a number which best represents your answer for that particular question. Take the following question and scale for example:

Do you enjoy going to the cinema? (please circle a number)

No	Yes slightly	Yes, very much
1	2 3 4 5 6	

If your answer is no, then you would circle 1; if it is yes then you would circle 2 to 6, depending on how much you enjoyed going to the cinema, 2 being only slightly, increasing to 6 for very much.

- * In some instances it will not be necessary to answer all questions. A filter system is incorporated to ensure that you only answer questions which are applicable to your circumstances. The filter takes the form of a statement which usually reads, for example, **"If yes, go to Q3; if no, go to Q5"** or **→ go to C4**. These are printed in bold on the questionnaire to make them easy to follow.
- * Please check the questionnaire after you have finished to ensure that you have answered all applicable questions. If you wish to make additional comments please give them at the end of the questionnaire or on a separate piece of paper.
- * Please return your completed questionnaire to me using the attached pre-paid (NO STAMP NEEDED) self addressed envelope by April 22nd 1994

PART 1

SECTION A: ABOUT YOURSELF

A1. How old are you? *(please state)*

.....

A2. Gender? *(please tick)*

Male ¹ Female ²

A3. Marital status? *(please tick)*

- Single ¹
- Married ²
- Divorced ³
- Cohabiting ⁴
- Widowed ⁵
- Separated ⁶

A4. Do you have any children? *(please tick)*

Yes ¹ No ²

PART 1

SECTION B: YOUR FUTURE CAREER

B1. Did you receive any career guidance in your first SHO post? *(please tick)*

Yes ¹ → go to B2
 No ² → go to B3

B2. Was this advice volunteered as a matter of course, or did you actively seek advice? *(please tick)*

Volunteered ¹ Actively sought ²

B3. Do you intend to pursue a career in medicine beyond SHO level? *(please tick)* Yes ¹ No ²

B4. What career path would you like to follow?

Hospital	<input type="checkbox"/> ¹ state speciality if known, put nk if unknown
General Practice	<input type="checkbox"/> ²
Don't know	<input type="checkbox"/> ³
Other	<input type="checkbox"/> ⁴ please state

B5. How did you decide on the career path you would like to follow?

.....

B6. Do you think that you will realistically be able to follow the career path of your choice? *(please tick)*

Yes ¹ → go to B9
 No ² → go to B7

B7. Why do you think you'll be unable to follow the career path of your choice?

.....

PART 1

B8. What career path might you possibly follow as an alternative to your first choice?

.....

B9. Would you consider working part-time? *(please tick)* Yes ¹ No ²

B10. Do you feel that a doctor's post-graduate training is too long?
(please circle a number)

Too short

Far too long

1 2 3 4 5 6

B11. Have you sat a professional exam yet (whether or not you have passed)? *(please tick one)*

Yes ¹
No ²

PART 1

C7. Do you consider that the job status offered by medicine AT CONSULTANT LEVEL is: *(please circle a number)*

Very low		Very high
1	2 3 4 5	6

C8. A GP Principal's average pay is £40,610. Do you consider this to be: *(please circle a number)*

Very poor		Very good
1	2 3 4 5	6

C9. Do you consider that the job satisfaction offered by medicine AT GP PRINCIPAL LEVEL is: *(please circle a number)*

Very low		Very high
1	2 3 4 5	6

C10. Do you consider that the job status offered by medicine AT GP PRINCIPAL LEVEL is: *(please circle a number)*

Very low		Very high
1	2 3 4 5	6

PART 1SECTION D: MEDICINE AND THE FAMILY

D1. Is a career in medicine more suited to: *(please tick one)*

- Male ¹
 Female ²
 Either Sex ³

D2. Is it possible for a man to combine a family life with a career in medicine?
(please circle a number)

- No Yes slightly Yes, very much
 1 2 3 4 5 6

D3. Is it possible for a woman to combine a family life with a career in medicine?
(please circle a number)

- No Yes slightly Yes, very much
 1 2 3 4 5 6

D4. Do you know about opportunities for part-time training in medicine? *(please tick)* Yes ¹ No ²

D5. Do you feel that men progress up the career ladder faster than women? *(please circle a number)*

- No Yes slightly Yes, very much
 1 2 3 4 5 6

D6. Do you feel that regularly changing jobs to progress up the career ladder is a source of stress? *(please circle a number)*

- No Yes slightly Yes, very much
 1 2 3 4 5 6

PART 1

SECTION E: DO YOU WISH TO LEAVE MEDICINE

E1. Do you regret choosing a career in medicine? *(please circle a number)*

No	Yes slightly				Yes, very much
1	2	3	4	5	6

If yes go to E2, otherwise go to E3

E2. Why do you regret your decision to pursue a career in medicine? *(please tick as many as apply)*

- Not enough time for patient care 1
- There's too much responsibility 2
- The pay is poor 3
- I don't like the hierarchical structure 4
- The training is too long 5
- There are too many exams to take 6
- It's not as interesting as I thought 7
- Too stressful 8
- The hours are too long 9
- I am constantly exhausted 10
- I don't get any job satisfaction from medicine 11
- Medicine interferes with the rest of
your life too much 12
- There's no status to being
a doctor any more 13
- Career progression is too slow 14
- Other (please specify below) 15

.....

PART 1

E3. Have you taken steps towards leaving the profession? *(please tick)*

Yes ¹ → go to E4
 No ² → go to E6

E4. What steps have you taken towards leaving the profession? *(please tick as many as apply)*

- Reading job adverts in the press regularly ¹
- Requesting job descriptions/application forms ²
- Applying for jobs outside of the NHS ³
- Applying to recruitment agencies ⁴
- Undergoing career counselling by ⁵
 someone outside of the NHS
- Applied for re-training through a Government ⁶
 scheme (eg graduate entry into teaching)
- Applied to study for another degree ⁷
- Other (please specify below) ⁸

.....

E5. What type of job would you consider doing? *(please specify below)*

.....

E6. If you had your time again, would you still study medicine? *(please circle a number)*

No	Yes probably				Yes, definitely
1	2	3	4	5	6

If No go to E7, otherwise go to Section F

PART 1

E7. Why WOULDN'T you study medicine if you had your time again? *(please tick as many as apply)*

- Not enough time for patient care 1
- There's too much responsibility 2
- The pay is poor 3
- I don't like the hierarchical structure 4
- The training is too long 5
- There are too many exams to take 6
- It's not as interesting as I thought 7
- Too stressful 8
- The hours are too long 9
- I am constantly exhausted 10
- I don't get any job satisfaction from medicine 11
- Medicine interferes with the rest of
your life too much 12
- There's no status to being
a doctor any more 13
- Career progression is too slow 14
- Other (please specify below) 15

.....

PART 1

SECTION F: YOU AND YOUR MORALE

F1. What's your morale like? *(please circle a number)*

Very low Very high
 1 2 3 4 5 6

F2. How much work do you have to do? *(please circle a number)*

Far too little Far too much
 1 2 3 4 5 6

F3. How easy do you think it will be for you to climb the career ladder in medicine?
(please circle a number)

Very difficult Very easy
 1 2 3 4 5 6

F4. Do you feel that you belong to part of a team at work? *(please circle a number)*

No Yes slightly Yes, very much
 1 2 3 4 5 6

If yes go to F5, otherwise go to F6

F5. Which team do you feel that you belong to : *(please tick one)*

Doctors' team ¹
 Multidisciplinary team ²
 Both teams ³

PART 1

<i>Please circle a number</i>	No	Yes slightly			Yes very much	
	1	2	3	4	5	6
F6. Are you committed to a career in medicine?	1	2	3	4	5	6
F7. Are you entirely happy in your profession?	1	2	3	4	5	6
F8. Do you feel underworked?	1	2	3	4	5	6
F9. Do you feel you have good support from your boss?	1	2	3	4	5	6
F10. Do you feel stressed?	1	2	3	4	5	6
F11. Do you feel in control of your job?	1	2	3	4	5	6
F12. Do you feel isolated (lonely, on your own) at work?	1	2	3	4	5	6
F13. Do you receive feedback from your boss?	1	2	3	4	5	6
F14. Do you find your job satisfying?	1	2	3	4	5	6
F15. Do you feel that your skills are currently underutilised?	1	2	3	4	5	6
F16. Do you feel that you have good support from nursing staff?	1	2	3	4	5	6
F17. Do you feel that you have good support from your hospital management?	1	2	3	4	5	6
F18. Do you feel a sense of camaraderie with other pre-registration house officers working in your hospital?	1	2	3	4	5	6
F19. Do you feel that there is a scramble for jobs in order to advance a career in medicine?	1	2	3	4	5	6
F20. Do you think that being a doctor gives you security of employment?	1	2	3	4	5	6
F21. Does the possibility of litigation concern you?	1	2	3	4	5	6
F22. Do you feel pressurised into sitting professional exams?	1	2	3	4	5	6

PART 1

SECTION G: IMPROVEMENTS

G1. How satisfied were you with training you received as a pre-registration house officer in performing practical procedures such as liver/pleural biopsies, insertion of central lines etc? *(please circle a number)*

	very satisfied							very dissatisfied
medical post	1	2	3	4	5	6		

	very satisfied							very dissatisfied
surgical post	1	2	3	4	5	6		

If you felt dissatisfied with your training go to G2 otherwise go to G3

G2. Why were you dissatisfied with the level of training you received in performing practical procedures? *(please specify below)*

.....

.....

.....

G3. Would you find it useful to receive individual career counselling whilst working as a Senior House Officer? Yes ¹ No ²
(please tick)

G4. Who do you think should be responsible for career counselling for Senior House Officers? *(please tick)*

- Supervising consultant ¹
- Clinical tutor ²
- College tutor ³
- Postgraduate dean ⁴
- Trained external counsellor ⁵
- Medical personnel officer ⁶
- Other (please specify below) ⁷

.....

PART 1

G5. Would you find it useful to receive stress counselling whilst working as a Senior House Officer? *(please tick)* Yes ¹ No ²

G6. Who do you think should be responsible for stress counselling for Senior House Officers? *(please tick)*

- Supervising consultant ¹
 - Clinical tutor ²
 - College tutor ³
 - Postgraduate dean ⁴
 - Trained external counsellor ⁵
 - Medical personnel officer ⁶
 - Other (please specify below) ⁷
-

PART 1

SECTION H: YOU AND YOUR HOURS OF WORK

H1. Do you work full time? *(please tick)* Yes ¹ No ²

H2. Which of the following do you work? *(please tick)*

- Full shift system ¹
- Partial shift system ²
- On call rota ³

H3. Please state how much overtime you are contracted to work eg 20 Additional Duty Hours (ADH) or 12 UMTs:

.....

H4. Please state the maximum length of on-call duty you work eg 56 hours:

.....

H5. Do you feel the hours you work are too long? *(please circle a number)*

- | | | | | | |
|----|--------------|---|---|---|----------------|
| No | Yes slightly | | | | Yes, very much |
| 1 | 2 | 3 | 4 | 5 | 6 |

H6. What type of hospital are you placed in? *(please tick)*

- District hospital ¹
- Teaching hospital ²

H7. Is it an NHS Trust Unit? *(please tick)* Yes ¹ No ²

PART 1

18. Have you noticed changes in the amount of exercise you take since you became an Senior House Officer? *(please circle)*

- Decreased ¹
- Same as usual ²
- Increased ³

19. Do you have access to freshly prepared meals (not precooked chilled/microwave food) at your hospital when working outside of normal hours? *(please tick)* Yes ¹ No ²

110. What sort of food do you normally eat when on-call? *(please tick as many as apply)*

- Freshly prepared meals ¹
 - Precooked chilled/microwave meals ²
 - Sandwiches/pastries eg pasties, sausage rolls ³
 - Take-away meals eg Chinese, fish and chips etc ⁴
 - Snacks eg chocolate, crisps, nuts ⁵
 - Other (please specify below) ⁶
-

111. Do you live in hospital accommodation all the time (not just when on-call)? *(please tick)*

- Yes ¹ → go to I12
- No ² → go to I13

112. How would you rate the standard of your hospital accommodation? *(please circle a number)*

- Very poor Very good
- 1 2 3 4 5 6

113. How would you rate the standard of on-call rooms provided by your hospital? *(please circle a number)*

- Very poor Very good
- 1 2 3 4 5 6

114. How would you rate the mess facilities in your hospital? *(please circle a number)*

- Very poor Very good
- 1 2 3 4 5 6

PART 2



JOB SATISFACTION AND HEALTH QUESTIONNAIRE

INSTRUCTIONS

We would like you to please:-

- * answer all the questions
- * give your first and natural answer; be accurate and honest
- * work quickly and efficiently through the questionnaire
- * base your answers on how you have felt during the last three months
- * if you make a mistake, cross it out and make your new answer
- * check each questionnaire to ensure that you have answered all the items

Material from the OCCUPATIONAL STRESS INDICATOR copyright Cooper, Sloan, Williams 1988. Reproduced by permission of the publishers ASE, a division of NFER-NELSON, Darville House, 2 Oxford Road East, Windsor, Berks SL4 1DF. All rights reserved.

How you feel about your job

This questionnaire is concerned with the extent to which you feel satisfied or dissatisfied with your job. Try not to be put off by any other reactions you may have – simply rate the items against the satisfaction/dissatisfaction scale provided.

▶ Please answer by circling the number of your answer on the scale shown:

Very much satisfaction 6
 Much satisfaction 5
 Some satisfaction 4
 Some dissatisfaction 3
 Much dissatisfaction 2
 Very much dissatisfaction 1



1	Communication and the way information flows around your organisation	6	5	4	3	2	1
2	The relationships you have with other people at work	6	5	4	3	2	1
3	The feeling you have about the way you and your efforts are valued	6	5	4	3	2	1
4	The actual job itself	6	5	4	3	2	1
5	The degree to which you feel 'motivated' by your job	6	5	4	3	2	1
6	Current career opportunities	6	5	4	3	2	1
7	The level of job security in your present job	6	5	4	3	2	1
8	The extent to which you may identify with the public image or goals of your organisation	6	5	4	3	2	1
9	The style of supervision that your superiors use	6	5	4	3	2	1
10	The way changes and innovations are implemented	6	5	4	3	2	1
11	The kind of work or tasks that you are required to perform	6	5	4	3	2	1
12	The degree to which you feel that you can personally develop or grow in your job	6	5	4	3	2	1
13	The way in which conflicts are resolved in your company	6	5	4	3	2	1
14	The scope your job provides to help you achieve your aspirations and ambitions	6	5	4	3	2	1
15	The amount of participation which you are given in important decision-making	6	5	4	3	2	1
16	The degree to which your job taps the range of skills which you feel you possess	6	5	4	3	2	1
17	The amount of flexibility and freedom you feel you have in your job	6	5	4	3	2	1
18	The psychological 'feel' or climate that dominates your organisation	6	5	4	3	2	1
19	Your level of salary relative to your experience	6	5	4	3	2	1
20	The design or shape of your organisation's structure	6	5	4	3	2	1
21	The amount of work you are given to do whether too much or too little	6	5	4	3	2	1
22	The degree to which you feel extended in your job	6	5	4	3	2	1



1	2	3	4	5	6
---	---	---	---	---	---

How you assess your current state of health

Part A of this questionnaire focuses on feelings and behaviour and how these are affected by the pressure you perceive in your job. *Part B* is concerned more specifically with the frequency of occurrence of manifestly physical problems.

The questions assume that you can assess your health with a fair degree of accuracy and also that you will be honest in your responses.

► Please answer by circling your position on each answering scale. Consider the questions with reference to how you have felt over the last three months.

Part A How you feel or behave

1	Would you say that you tended to be a rather overconscientious person who worries about mistakes or actions that you may have taken in the past, such as decisions?	Very true						Very untrue
		6	5	4	3	2	1	
2	During an ordinary working day are there times when you feel unsettled and upset though the reasons for this might not always be clearly obvious?	Frequently						Never
		6	5	4	3	2	1	
3	When you consider your level and quality of job performance recently, do you think that your contribution has been significantly useful?	Very useful						Not really
		6	5	4	3	2	1	
4	As difficult problems occur at work that require your attention, do you find that you can think as clearly and as concisely as you used to or do you find your thoughts becoming 'muddled'?	Definitely think not as clearly						Definitely think as clearly
		6	5	4	3	2	1	
5	When the pressure starts to mount at work, can you find a sufficient store or reserve of energy which you can call upon at times when you need it that spurs you on into action?	Loss of energy						Not much energy
		6	5	4	3	2	1	
6	Are there times at work when you feel so exasperated that you sit back and think to yourself that 'life is all really just too much effort'?	Often						Never
		6	5	4	3	2	1	
7	As you do your job have you noticed yourself questioning your own ability and judgment and a decrease in the overall confidence you have in yourself?	No noticeable decrease						Noticeable decrease
		6	5	4	3	2	1	
8	Generally and at work, do you usually feel relaxed and at ease or do you tend to feel restless, tense and find it difficult to 'settle down'?	Relaxed						Tense
		6	5	4	3	2	1	
9	If colleagues and friends behave in an aloof way towards you, do you tend to worry about what you may have done to offend them as opposed to just dismissing it?	Definitely worry						Definitely do not worry
		6	5	4	3	2	1	
10	If the tasks you have implemented, or jobs you are doing, start to go wrong do you sometimes feel a lack of confidence, and panicky, as though events were getting out of control?	Often						Never
		6	5	4	3	2	1	
11	Do you feel confident that you have properly identified and efficiently tackled your work or domestic problems recently?	Have 'faced up' properly						Have not 'faced up' properly
		6	5	4	3	2	1	
12	Concerning work and life in general, would you describe yourself as someone who is bothered by their troubles or a 'worrier'?	Definitely yes						Definitely no
		6	5	4	3	2	1	
13	When trying to work do you find yourself disproportionately irritated by relatively minor distractions such as answering the telephone or being interrupted?	Very irritated						Not irritated at all
		6	5	4	3	2	1	
14	As time goes by, do you find yourself experiencing fairly long periods in which you feel rather miserable or melancholy for reasons that you simply cannot 'put your finger on'?	Often						Never
		6	5	4	3	2	1	
15	Would you say you had a positive frame of mind in which you feel capable of overcoming your present or any future difficulties and problems you might face such as resolving dilemmas or making difficult decisions?	Definitely yes						Definitely no
		6	5	4	3	2	1	
16	When you think about your past events do you feel regretful about what has happened, the way you have acted, decisions you have taken, etc?	No regrets						Lots of regrets
		6	5	4	3	2	1	
17	Would you describe yourself as being a rather 'moody' sort of person who can become unreasonable and bad tempered quickly?	Definitely yes						Definitely no
		6	5	4	3	2	1	
18	Are there times at work when the things you have got to deal with simply become too much and you feel so overtaxed that you think you are 'cracking-up'?	Definitely yes						Definitely no
		6	5	4	3	2	1	

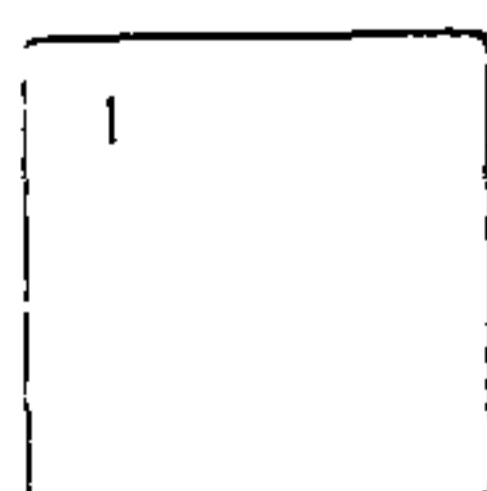
Part B Your physical health

Examine the list below and indicate the frequency of occurrence of these ailments over the last three months.

▶ Please answer by circling your answer on the scale shown.

Very frequently	6
Frequently	5
Sometimes	4
Infrequently	3
Very infrequently	2
Never	1

1	Inability to get to sleep or stay asleep	6	5	4	3	2	1
2	Headaches and pains in your head	6	5	4	3	2	1
3	Indigestion or sickness	6	5	4	3	2	1
4	Feeling unaccountably tired or exhausted	6	5	4	3	2	1
5	Tendency to eat, drink or smoke more than usual	6	5	4	3	2	1
6	Decrease in sexual interest	6	5	4	3	2	1
7	Shortness of breath or feeling dizzy	6	5	4	3	2	1
8	Decrease in appetite	6	5	4	3	2	1
9	Muscles trembling (e.g. eye twitch)	6	5	4	3	2	1
10	Pricking sensations or twinges in parts of your body	6	5	4	3	2	1
11	Feeling as though you do not want to get up in the morning	6	5	4	3	2	1
12	Tendency to sweat or a feeling of your heart beating hard	6	5	4	3	2	1



There is no scoring key for this scale

Appendix 6 Independent variables used in the multivariate analysis of the original PRHO survey

This appendix comprises the independent variables used in the multivariate analysis against the dependent variables: total job satisfaction, mental ill-health and physical-ill-health.

Figure 112 Independent variables	
<ul style="list-style-type: none"> • sex • regret with choosing a career in medicine • rating of house officers' pay • pressure to study medicine • opportunity to spend time with a house officer • desire to study medicine • status at house officer level • belonging to part of a team • commitment to medicine • feeling underworked • support from one's boss • feeling in control of one's work feeling isolated 	<ul style="list-style-type: none"> • support from nurses • support from managers • sense of camaraderie • scramble for jobs to advance a career in medicine • security of employment in medicine • concern about the threat of litigation • quantity of work • adequacy of preparation undergraduate level for role as PRHO • standard of mess facilities • hours of work • receiving feedback from one's boss • underutilization of skills

Appendix 7 Independent variables used in the multivariate analysis of the follow up SHO survey

This appendix comprises the independent variables used in the multivariate analysis against the dependent variables: total job satisfaction, mental ill-health and physical-ill-health.

Figure 113 Independent variables	
<ul style="list-style-type: none"> • sex • regret with choosing a career in medicine • rating of house officers' pay • pressure to sit an exam • status at house officer level • belonging to part of a team • commitment to medicine • feeling underworked • support from one's boss • feeling in control of one's work • feeling isolated 	<ul style="list-style-type: none"> • support from nurses • support from managers • scramble for jobs to advance a career in medicine • security of employment in medicine • concern about the threat of litigation • quantity of work • having taken an exam in the past 3 months • standard of mess facilities • hours of work • receiving feedback from one's boss

Appendix 8 Independent variables used in the multivariate analysis of the multiple district PRHO survey

This appendix comprises the independent variables used in the multivariate analysis against the dependent variables: total job satisfaction, mental ill-health and physical-ill-health.

Figure 114 Independent variables	
<ul style="list-style-type: none"> • sex • regret with choosing a career in medicine • rating of house officers' pay • pressure to study medicine • opportunity to spend time with a house officer • desire to study medicine • status at house officer level • belonging to part of a team • commitment to medicine • felling underworked • support from one's boss • feeling in control of one's work feeling isolated 	<ul style="list-style-type: none"> • support from nurses • support from managers • sense of camaraderie • scramble for jobs to advance a career in medicine • security of employment in medicine • concern about the threat of litigation • quantity of work • adequacy of preparation undergraduate level for role as PRHO • standard of mess facilities • hours of work • receiving feedback from one's boss • underutilization of skills

Appendix 9 Leaflets and advertising material from CONTACT

***Can you empathise with
your patients without
feeling depressed?***

***When you come away from work
feeling down - talk to someone;
if it happens often - talk to us.***

"Contact"

***A free, independent and confidential support and stress
management service for Doctors and Dentists in training in the
West Midlands Region.***

***Make contact with us now for further information or an
appointment.***

0121 558 0278

***Provided by Sandwell Psychology and Counselling Service.
Funded by West Midlands Region.***

Bitten anybody's

head off recently?

***Irritable? Anxious? Tearful?
Don't let the pressure get to
you.....***

"Contact"

A free, independent and confidential support and stress management service for Doctors and Dentists in training in the West Midlands Region.

Make contact with us now for further information or an appointment.

0121 558 0278

***Provided by Sandwell Psychology and Counselling Service.
Funded by West Midlands Region.***

"CONTACT"

Support Scheme for Doctors and
Dentists in training in the West
Midlands Region.

0121 558 0278

Confidential Service

STRESSED? CONFUSED? ANXIOUS?

- Confidential Independent Service provided by Sandwell Psychology & Counselling Service.
- Available to all Doctors & Dentists in training in the West Midlands Region.
- Free telephone and face to face contact available.
- Leave a message or contact number to be phoned back (24 hrs message service).

Appendix 10 Book reviews of the Stress Survival Guide

Taken from the Postgraduate Medical Journal 1995;71:225

obviously deliberately so. There is repetition of the difficulties doctors have in recognising stress in themselves and others, and in being sympathetic and supportive rather than the more typical response of discerning weakness. Institutional causes are also given appropriate recognition; long hours of work, lack of peer and senior support, and relocation every six months precluding relationships which acknowledge weaknesses as well as strengths. Suggested strategies of coping emphasise acknowledgement of stress, a life away from work, seeking those with whom one can discuss problems, the need for self care (? self respect), and skills in delegation, time management, and problem solving.

Neither the diagnosis nor the suggested treatment is new. Despite the optimistic tone one is left, as is the author, with a quite

dishheartening feeling that there is unlikely to be any major reduction of the unreasonable demands on junior doctors by 'the system' or senior colleagues. One then wonders to whom this book should best be addressed. A junior doctor who buys it because of stress might find it describes the problem without providing sufficient relief. Perhaps it might more profitably be read by consultants and those responsible for undergraduate teaching who might feel the need to do more to make the role of the junior doctor an enjoyable educational experience.

J HUGGINS
*Postgraduate Medical Dean's Office,
 Hamilton House, Pall Mall,
 Liverpool L3, UK*

Stress

Stress survival guide, C Grainger. pp 50, illustrated. British Medical Journal, London, 1994. £6.95, paperback

This is a short book written in an informal style and obviously based on a relatively recent acquaintance with the life of junior hospital doctors. The material is presented in a non-technical and unsophisticated way, but

Taken from the Irish Journal of Medical Science 1996;1

Stress Survival Guide by Caron Grainger. BMJ Publishing Group. Sept. 1994. Price: £14.95.

This B.M.J. production is a useful and handy aide-memoir for both medical students and newly qualified doctors in recognising and dealing with stress. It has useful chapters in describing and personalising stresses that young doctors may experience. It goes on to explain how useful stress is to survive but how common and problematical it can be in over half the young doctors qualifying today.

The book is divided into two sections, one giving a brief background as to what stress is and how it may affect you and then a brief review of some techniques that one may find useful for dealing with stress. The book's style is informal and quick and easy to read and has boxed practical hints throughout providing summaries of action that you can take. The book is deliberately kept very simple with useful tips on flexibility and problem solving, delegation techniques, time management, relaxation techniques, assertiveness techniques. It stresses the need of self care and asking for help when it is needed. Unfortunately the sources of help are aimed at U.K. doctors. A list of Irish based resources would be useful when this book is on sale in Ireland.

DR. MICHAEL G. GRIFFIN,
Limerick.

Taken from the British Journal of General Practice April 1995

STRESS SURVIVAL GUIDE

Caron Grainger

British Medical Journal Publishing Group, London (1994)

54 pages. Price £6.95

Sadly, the very existence of this plucky little pamphlet about stress serves to indict not only those responsible for the current working conditions of today's young doctors, but also those who supervise their education and training. Were it not for their shortcomings, arguably, such publications would be superfluous. A hugely complex topic for so small a book, it is remarkable how much the author — interestingly a non-clinician — has managed to pack into its 50 pages.

This booklet, aimed principally at junior hospital doctors, covers a lot of ground, inevitably some of it somewhat superficially. Nevertheless, it provides a useful introduction to an increasingly important subject, particularly for medical students, vocational trainees and young general practitioner principals. Although not purporting to be an authoritative reference work, it is rather scantily referenced. However, it aims to give a brief overview of some of the main issues and conflicts which lie behind the frequently stressful present day working conditions. Moreover, it attempts to provide readers with some useful insights into how to assess their own personal stress levels, before indicating various constructive mechanisms for stress reduction, and pitfalls to avoid. Finally, some useful tips and contact points of several help agencies are listed, including the essential advice to register with a general practitioner.

In short, the *Stress survival guide* provides a handy pocket comforter at a time when, as the author reminds us, according to Kilburg 'Professionals can be their own worst enemies.' The persistent concern is that those who most need to read and heed it, probably will not.

RICHARD MAXWELL

*General practitioner, Bristol and
Royal College of General Practitioners/Department of
Health joint general practitioner stress fellow*

Taken from the Journal of the Royal Army Medical Corps and Army Medical Services Magazine June 1995

Stress Survival Guide. C Grainger. BMJ Publishing Group, 1994. Pp 54. £6.95 UK. Illustrated. ISBN No: 0-7279-0879-0.

This book is written by a Senior Registrar in Public Health Medicine for newly qualified doctors and medical students. It is inspired by a similar book published for trainees in clinical psychology and refers to other sources including 'Living with Stress' (by Cooper CL, Cooper RD, Eaker CH).

It is a very practical guide to recognizing stress and managing it. It takes a problem solving approach, discussing the real difficulties that are specific to medicine and sensibly challenges some of the prevailing attitudes within the profession. It gives good sound advice about time management, relaxation and saying 'No'. It is very short and can be read quickly and easily and gives a useful list of sources of help. The book was initially prepared by the West Midlands Post Graduate Board of Medical and Dental Education and distributed to all their house officers.

This is to be commended and perhaps other employing authorities should think about doing the same.

By recognising and managing stress in their own lives doctors will be in a much better position to help their patients do the same. Although written for medical students and young doctors, a number of older doctors will find this book valuable too.

A.E. GILLHAM

Taken from the Royal Naval Medical Service 1995:81:68

Stress Survival Guide. Caron Grainger. BMJ Publishing Group, September 1994. Pp 64. UK £6.95; Overseas £8.00.

The bookshelves and libraries of the developed world have numerous publications on the subject of stress and it is a common subject for discussion in all sections of the media. It is always said that the medical profession has an elevated level of stress and numerous surrogate markers for stress (divorce, alcoholism, suicide) are highly prevalent among doctors. This is the first book that I am aware of which is written by a doctor specifically for doctors about dealing with stress. Its target audience is principally junior doctors (especially pre-registration house officers) and medical students, but many of their more senior colleagues would benefit from borrowing this little book. The author was a house doctor in 1988 and writes with the feeling and authority of recent experience.

Probably the most important message in the introduction is where the author makes the point that individuals suffering from stress are neither alone nor incurable. She describes the symptoms of stress and gives guidance on how to recognise stress in ones-self or others and although one has heard most of the features discussed previously, it is useful to have them drawn together.

The author then goes on to describe more specific techniques for reducing stress levels and although many of the descriptions are somewhat superficial, they do give useful pointers of where to go next. I found her sections on assertiveness and time management extremely interesting. She concludes on a message of hope and then gives many sources of further advice and help. Apparently this book was distributed free of charge to house officers working in the West Midlands and I think they were lucky to get it. It should certainly be required reading for all newly qualified house staff. Many of the stressful situations described would certainly apply to a new entry medical officer about to take up his first sea appointment — they should all read it.

A R O Miller

Taken from the New Zealand Medical Journal July 1995

Stress Survival Guide

By Caron Grainger. Published by British Medical Journal Publishing Group. Contains 54 pages. ISBN 0 7279 0679 0. Price £8.00.

This small but excellent handbook for junior hospital doctors is written by a senior registrar, who herself, has just journeyed through these, sometimes, difficult years.

The writing style is simple practical and devoid of jargon. The common causes of stress in a medical career, particularly those for junior doctors and medical students, are discussed. There is a good check list of stress symptoms. Finally stress prevention and stress management strategies are outlined. These include such things as: Getting on With Your Consultant, Time Management and Examination Preparation.

The final message is timely, It Happens To All Of Us, You Are Not Alone – Help is Available. Perhaps if this message became part of our medical culture the junior doctors' lot would be happier and the tragic events that sometimes occur during this phase of training could be avoided.

This would be a suitable gift to a senior student or a new graduate. It might even be a good investment for employing CHE's to include in the induction package for all new RMO's along with a list of local helping agencies.

John O'Hagan, Christchurch.

Appendix 11 Letter received by the author about the Stress Survival Guide

29 Ilmington Rd
Kenton Harrow
Middx
HA3 0NP.

Dear Carol Ganger,

I have just finished reading your book 'Stress Survival Guide' & am feeling a lot more tranquil than I did a couple of hours ago.

Suffice to say, it's immensely readable & discusses the subject without apology or awkwardness but ~~with~~ candidly & honestly. The tone was that of an old friend giving some good advice.

I hope that you do not see this letter as "wet", it's really just meant to say 'thankyou'.

I hope your future endeavours will continue to be successful.

Yours faithfully,
Sharon Grayeff.

Appendix 12 Sample timetable for the "How to be an effective house officer" course

HOW TO BE AN EFFECTIVE HOUSE OFFICER *for final year students*

Thursday January 30th 1997
Queen Elizabeth Medical Centre

PROGRAMME

10.30 am	Introduction	Professor John Temple
10.35 am	Organisation of the NHS	TBC
11.00 am	The House officer: job expectation	Professor John Temple/Dr Roy Cockel
	The House Officers day - what really happens	Dr Alistair Marsh Dr John Robinson Dr Catherine Walker
12.00	Discussion	
12.30 pm	Lunch	
1.30 pm	Career development	
	- postgraduate system	Dr Roy Cockel
	- applying for your next job	Dr Martin Kendall/Mrs Gill Slater
	- flexible training	Dr Kristine Hofberg
	- professional conduct and discipline	Dr Rowland Hopkinson
3.00 pm	Tea	
3.30 pm	Stress and the doctor	Dr Eleanor Harries
4.00 pm	Time management and personal organisation	Dr Simon Walford
4.45 pm	Prescribing	Dr RE Ferner/Ms Pam Magee
	- legalities	
	- controlled drugs	
	- TTOs	
5.30 pm	Caring for the carers	Dr A Roberts
	- vaccinations	
	- sick leave	
	- HIV/AIDS	
	- occupational health	
	- holidays	
6.00 pm	Close and supper	

HOW TO BE AN EFFECTIVE HOUSE OFFICER
for final year students

Friday January 31st 1997
Queen Elizabeth Medical Centre

PROGRAMME

9.30 am	Medico-legal pitfalls	Dr Ian McKim Thompson
10.00 am	Contracts, hours, accommodation, council tax	Miss Julie Shillingford
	Finance, pay slips, tax, pensions	
11.00 am	Dealing with Medical Personnel	Dr Simon Smith
12.00 am	Lunch and close	

SOME PARTS
EXCLUDED
UNDER
INSTRUCTION
FROM THE
UNIVERSITY

Acknowledgements

I would like to express my thanks to the following for their assistance whilst performing this research.

The Postgraduate Board of Medical and Dental Education for funding this programme of work.

NFER-Nelson for allowing me to reproduce the Occupational Stress Indicator.

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