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University of Stirling

Institute of Education

**The Learning Experiences of
General Practice Registrars in the
South East of Scotland**

Thesis for Doctorate in Education

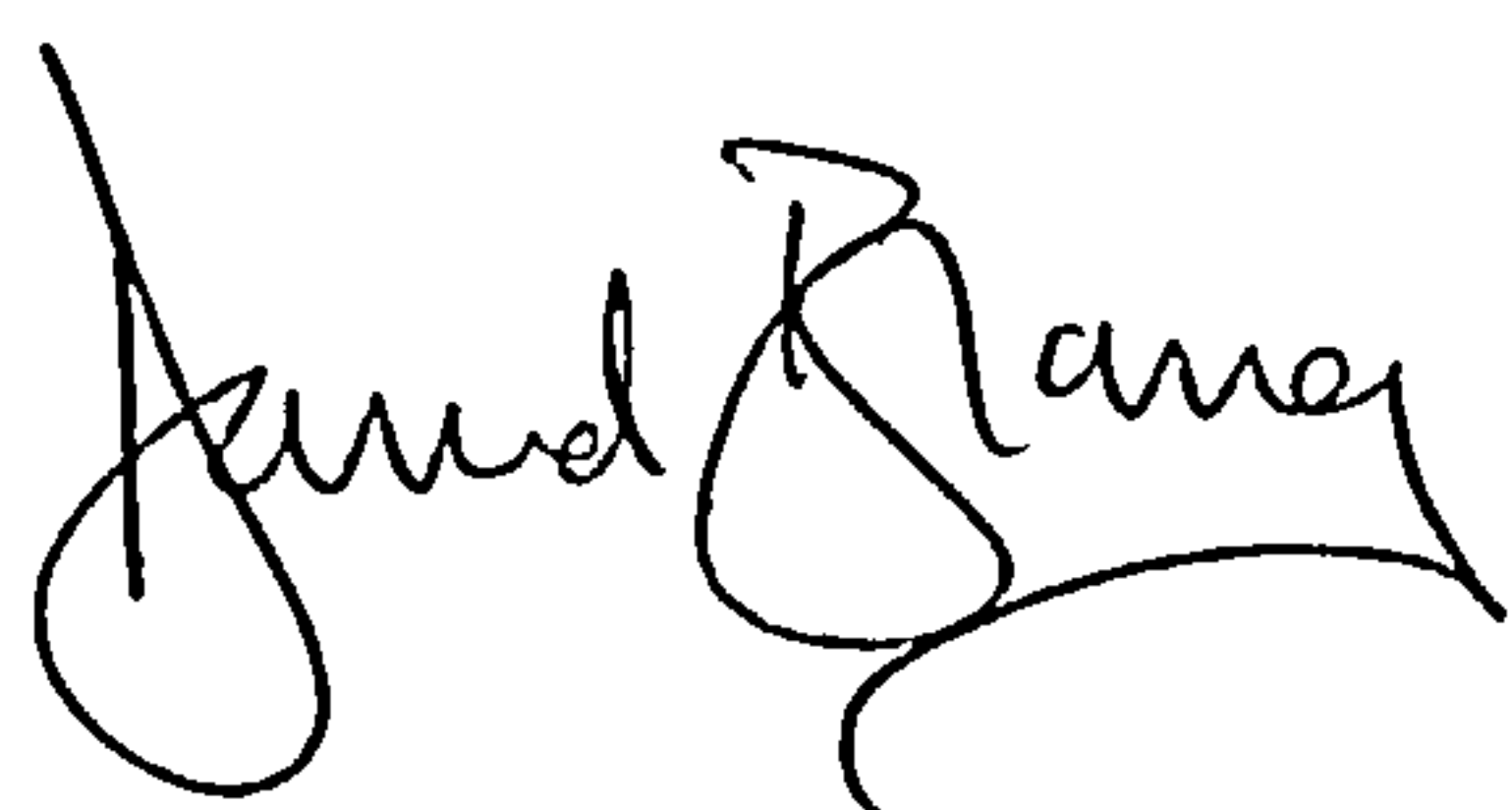
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04/05

Declaration

I, David Blaney certify that I have composed this thesis and that the work it embodies has been done by me and has not been submitted for any other award or qualification or included in any other thesis.

A handwritten signature in black ink that reads "David Blaney". The signature is written in a cursive style with a large initial 'D' and a long, sweeping underline.

David Blaney

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ABSTRACT

To train to be a general practitioner in the U.K. a doctor must spend two years in hospital training posts and one year in general practice as a general practice registrar (GPR). Concern has been expressed in the literature about both the duration and adequacy of general practice training. A literature review identified that there was limited knowledge of and understanding about the learning experiences of GPRs. The aim of the study was to describe and interpret the learning experiences of GPRs in the South East of Scotland during their year in general practice.

The methodology was derived from Denzin's concept of Interpretivism and involved in depth interviews over time with GPRs and thick description to capture and interpret the GPRs learning experiences. Two cohorts of 24 GPRs were recruited, cohort one ran from September 2002 to July 2003 and cohort two from September 2003 to August 2004. The GPRs were interviewed on three occasions during their year. In addition to the interviews six GPR focus groups and six GP trainer focus groups were held over the period December 2002 to September 2003.

21 GPRs in cohort one completed all three interviews and 20 GPRs in cohort two. All the participating GPRs completed at least two interviews. The results were interpreted within the educational concept of the curriculum. Four main curricula were identified during the GPR year: these were the formal, assessment, individual and hidden. Each independently contributed to the GPRs learning and also interacted synergistically at various times during the year. In the last quarter of the year there was a tension between the requirements of the assessment and individual curricula. The individual curriculum which was composed of the GPRs clinical experiences and in particular

epiphanies was the main driver of GPR learning. Epiphanies were identified by GPRs as having the most significant impact on their learning. Central to this learning was the contribution of their general practice trainer who supported their learning both through the development of the practice learning environment and the promotion of reflection and self directed learning. GPR learning during the year was an iterative process, which involved a reflective and supported interaction between the GPR, their clinical experiences, epiphanies and their trainer. Through this process the GPRs became self directed and reflective learners and developed individual learning networks which led to changes in the way they practiced medicine. This process also led to the socialisation of their learning and promoted their integration into the culture of working general practice, through which they were exposed to the working realities of life as a general practitioner and these experiences had a critical effect on their future career choice.

A number of important policy implications were identified which have implications for the present and future direction of training for general practice. The process of thick description and the longitudinal nature of the study allowed for a new interpretation of the learning experiences of GPRs and added to the knowledge and understanding of how GPRs learn during their training.

CHAPTER ONE

INTRODUCTION

Why this Study?

Training for general practice is going through a time of uncertainty. There is at present concern about the recruitment and retention of general practitioners and the suitability of the current general practice training system to deliver doctors who are capable and willing to work in the NHS. Both recruitment into and retention of general practice registrars (GPRs) is causing concern, with less than a third going into general practice on completion of their training. For the NHS this is unsustainable and there is a political commitment to increase the number of general practitioners to meet the needs of the NHS and to focus the NHS to a greater extent on a Primary Care agenda.

To address the problems of recruitment and retention, present policy options include an increase in the length of training and the time spent in general practice with less time being spent in hospital. The evidence base to support these changes is weak and there is little published data about the learning and lived experiences of GPRs or the determinants of their career decisions. Much of the literature is from a trainer or personal perspective. Many of the policy changes are being advocated on the basis of limited evidence and in the hope that they will aid retention and recruitment.

I am employed as a Director of Postgraduate General Practice Education with responsibility for the training programme for around 90 GPRs per annum in the South

East of Scotland (Lothian, Fife and the Borders). I had become aware of a tension between the policy aims and the anecdotal reports and feedback from GPRs about their training and the reasons for not going into general practice. This project is an attempt to document the learning experiences of GPRs during their training and to delineate the important learning methods and the learning experiences of GPRs in order to better understand the effect of their training on them. A key aim is to begin to restructure their training to better support their learning and to inform the developing national debate on the future of general practice training.

What is General Practice?

Historical Background

General practice has been an integral part of the health care system in the UK since its inception. The concept of the general practitioner or family doctor was enshrined in the 1865 Medical Act, which established the General Medical Council (GMC) as the regulator of the medical profession and granted any doctor who had full registration with the GMC the right to work as a general practitioner with no requirement for any further training or assessment.

With the establishment of the National Health Service (NHS) in 1948 the central role of the general practitioner in health care delivery was established. However, the quality of general practice in the 1940s and 1950s was highly variable. A report published in 1950 (Collings 1950) exposed the lamentable state of general practice in the UK. This was largely a consequence of the fact that general practitioners were not NHS employees but independent contractors who contracted into the NHS to provide services for a fee. Consequently, general practice was given very little capital funding

or support. The situation described by Collings further deteriorated through the 1950s leading to the formation of the College of General Practitioners with the explicit aim to “*Encourage, foster and maintain the highest possible standards in General Practice*” (RCGP 1985a). However, throughout the late 1950s and early 1960s general practice suffered from low morale and this coupled with the emigration of significant numbers of general practitioners led to a workforce crisis. The resulting political and professional pressure led in 1965 to the government introducing a *Charter for the Family Doctor* (BMA 1965). The Charter laid the foundation for modern general practice, which remained in place until 1990. It provided general practitioners with financial security, capital funding for premises, recurrent funding for staff, and reduced professional isolation by providing financial incentives to form group practices. As a result of the Charter, the recruitment and morale of general practitioners increased through the 1960s and 1970s.

The Royal College of General Practitioners (RCGP) during this period was instrumental in driving the quality and training agenda. The first General Practice Vocational Training Scheme (GPVTS) in the UK was formed in Inverness in 1952 followed in 1959 by a similar scheme in London (Horder and Swift 1982). These schemes offered a trainee a three-year structured training programme comprising two years in hospital and one year in general practice under supervision. However, throughout the 1960s and 1970s the quality of general practice remained variable and the Royal College of General Practitioners in evidence presented to the Royal Commission on NHS in 1969 stated, “*The standard of care provided by some doctors is mediocre and by a minority is of an unacceptably low standard*” (RCGP 1979). The Royal Commission concluded that the standards of training for and the quality of

general practice needed to be improved, and recommended a five-year training scheme and certification, a programme to reduce professional isolation and the development of national standards of care in general practice. The recommendations of Royal Commission on mandatory training were enacted in the 1979 Vocational Training Act, but the duration of training for general practice was set at three years and not the recommended five years (NHS 1979).

In the 1980s the political climate altered and a new general practice contract was imposed in 1990 (Department of Health 1989, Tudor-Hart 1998). The new contract increased accountability and introduced the concepts of fund-holding, purchaser-provider split and the internal market (Lewis 1997). This contract was deeply unpopular with general practitioners (Elwyn *et al* 1998, Department of Health 1996, Heath 1995, Irvine 1997). By the mid 1990s, both morale and recruitment in general practice was low (Lambert *et al* 1996, RCGP 1996, Redpath and Hansen 2000). In Scotland, for example, the proportion of doctors training for general practice dropped from 9.6% of the workforce in 1990 to 5.4% in 1996 (Elliot *et al* 2003). By 2000, general practice was again facing a workforce crisis and a survey concluded that 86% of general practitioners were willing to provide signed, undated resignation letters unless a new contract was negotiated (BMA 2001). A new contract was agreed upon and approved and came into affect in April 2004 (BMA 2003). It included increased primary care funding, rewards for quality practice, a family friendly contract, a control on patient demand, and an increase in patient contact time.

General practice has had an unsettled history and this impacted not only on the career choices of young doctors but also on the definition of what constitutes general

practice. However, despite this, significant progress has been made both in improving training for general practice and the quality of care provided by general practitioners (Field 2004).

Definition of a General Practitioner

Prior to 1990 the legal definition of a general practitioner was termed the “John Wayne” definition. This defined a general practitioner’s role as *“To render to their patients all necessary and appropriate medical services of the type usually provided by General Practitioners”* (BMA 1965, Department of Health 1989). This definition was considered unhelpful and attempts have been made to define the nature, scope and content of the work of general practice as well as the skills, knowledge and attributes required of a general practitioner. It has been argued that without an adequate definition, it is difficult to define a training curriculum for general practice (RCGP 1985b, 1990).

In 1972 the Royal College of General Practitioners (RCGP) published a landmark document called *The Future General Practitioner*, which provided a definition of the knowledge, skills and attributes considered essential for general practice (RCGP 1972, 1985). This document has informed the development of general practice and primary care in most European countries and formed the syllabus for future general practice education and training. It defined a general practitioner as a doctor who dealt with patients in terms of their physical, social and mental well-being. The definition, though broad and inclusive, provided the academic and theoretical justification for the role of the general practitioner in society.

The RCGP definition has been revisited over the years to update it but the essence of the definition has remained unchanged. Central to the definition is the individual doctor-patient relationship (Spence 1960, McWhinney 1996, Heath 1995, Heath *et al* 2000). According to this definition, the role of the general practitioner includes not only clinical care but patient advocacy, public health and challenging social concepts of health. A consequence of this definition was an increase in both workload and complexity (Wanless 2003). Increasing professional disquiet with this change in work pattern resulted in the 1990s in a revision of the definition with increased emphasis on the clinical aspects of general practice. Today the accepted working definition of a general practitioner is that by Olesen *et al*. It has an international dimension and refocuses the activity and responsibility of the general practitioner as a community-based specialist in personal health care but with social responsibilities. In this definition general practitioners have responsibility not only for individual patient well-being but also for wider aspects of public health and social policy. It states:

“The GP is a specialist trained to work in the front line of a health care system and to take the initial steps to provide care for any health problem(s) that the patient may have. The GP takes care of individuals in society, irrespective of the patient’s disease or other social or personal characteristics and organizes the resources available in the health care system to the best advantage of the patient. The GP engages with autonomous individuals across the fields of prevention, diagnosis, cure, care and palliation using and integrating the sciences of biomedicine, medical psychiatry and medical sociology.” (Olesen *et al*. 2000).

The development of a European definition of a general practitioner has been beneficial in refocusing the needs and requirements of general practice training across Europe (ACMT 1995). Doctors in training for general practice require not only clinical experience from a range of clinical disciplines, but patient-centred consulting, managerial skills, an awareness of the social and psychological dimensions of illness,

and the impact of social policy on public health. The revised definition has challenged the capacity of the present general practice training program, which is now considered too short and too hospital focused to meet the needs of general practice in the 21st century (Department of Health 2001, WONCA 2002).

The Present Role of the General Practitioner in the NHS

There are approximately 5000 general practitioners in Scotland. Each has a list of registered patients and the average list size is 1560. In 2002 the average annual consultation rate per patient was 4.2. Therefore, the average general practitioner saw an average of 24 patients per day (Elliot *et al* 2003). The majority of general practitioners work in group practices, which include nursing and administrative staff. Until April 2004 the services that general practitioners contracted to provide to their patients were detailed in the statement of fees and allowances and they were paid a capitation fee per patient plus an item of service payment for providing certain services such as contraception, minor surgery etc. It is estimated that 90% of all NHS patient contact is managed in general practice. Over the last 10 years there has been an increase in the consultation rate and a decline in home visiting. Case complexities have grown, with more patients being discharged from hospital earlier, and there has been an increase in general practitioner responsibility for managing chronic disease (Wanless 2003).

Training for General Practice

Training for general practice is unique compared with other clinical specialties in that the training requirements are defined in statute (NHS 1979) and managed by the Joint Committee of Postgraduate Training for General Practice (JCPTGP). The JCPTGP is

a composite body comprising representation from the RCGP, British Medical Association, Universities, Directors of Postgraduate General Practice Education and the public. To become a general practitioner a doctor must complete a minimum of two years in educationally approved hospital posts in a variety of specialties, and a minimum of one year as a general practice registrar (GPR).

In 1993 the 1979 regulations were amended to take into account European legislation (EEC 1993), which required that each member state must recognise the certification awarded by another member state. This allowed the free movement of doctors within the European Union and was a major stimulus to trying to agree on a European definition of a general practitioner (WONCA 2002). In 1997 the Vocational Training regulations were further amended to require all doctors training for general practice to satisfactorily complete Summative Assessment prior to receiving a JCPTGP certificate (NHS 1997).

General Practice Trainers and Training Practices

The JCPTGP quality assures training by devolving its authority to Directors of Postgraduate General Practice Education. There are four Directors of Postgraduate General Practice Education in Scotland. The Director is a senior general practitioner with experience in medical education and is responsible to the JCPTGP for the selection and appointment of General Practice trainers (GP trainers), training practices, hospital posts and GPRs. The JCPTGP has published in detail the standards expected of a GP trainer, training practice and hospital posts (www.jcptgp.org.uk)

To become a GP trainer in Scotland all prospective trainers have to undergo a mandatory eight-day course, and accredited training practices have to meet strict performance criteria for clinical, non-clinical and educational activities to ensure that they provide a suitable training environment (SCPMDE 2001, Smith 2004). Accreditation is for a maximum period of 3 years and is thereafter dependant on the outcome of a peer accreditation visit. The JCPGP visits each Region over a three-year cycle to quality assure the delivery of general practice training. Competition for GPRs is intense with an excess of training practices over available GPRs and a waiting list in Scotland for new trainer appointments. At present, there are approximately 280 GPRs training annually in Scotland, 340 training practices and 480 GP trainers.

CHAPTER TWO

LITERATURE REVIEW

Summary

The literature review identified a number of themes related to GPR training. These were: general practitioner/GPR views on the GPR year, quality assurance of general practice training, duration of training for general practice, utility of general practice training/vocational training, workforce retention and recruitment issues, the hospital component of the general practice training, assessment, the emotional dimension of work, learning theory, and curricula design in the GPR year.

The review identified four main sources of information: policy statements from regulatory or professional bodies, published peer review studies, editorials, and personal statements. The peer review publications were of mixed quality. The majority that were identified from the literature review were small, local, qualitative studies involving either questionnaires or focus groups, and usually conducted at one point in time with no follow-up. Most of the studies were conducted within a positivist paradigm and the analysis of qualitative data was superficial as opposed to deep, focusing on 'facts' as opposed to feelings, beliefs or the lived experiences of GPRs. Policy statements were often not evidence based and provided few references to justify the statements themselves or the report conclusions.

Literature Review - Method

The literature review was conducted through Medline, Embase, the RCGP and the Royal College of Physicians of Edinburgh (RCPE) databases. In discussion with the librarians at RCGP and RCPE and in consultation with the information manager at NHS Education for Scotland (NES) a number of key words and phrases were used in the searches including: general practitioner training, vocational training, GPR, GP registrar, GP trainee, and family medicine training. A range of journals including Medical Education, British Journal of General Practice, Education for Primary Care, Family Practice, and the BMJ from 1990 which published the majority of the articles in the subject area were reviewed by hand because the classification of some of the articles on GP training was variable and not all relevant articles were identified through the library searches. The librarians at the RCGP, BMA (British Medical Association) and JCPTGP kindly identified important policy documents and statements relevant to the review. In addition, the information manager at the NES singled out and provided copies of relevant NES texts and policy documents. A number of textbooks were identified and reviewed and a number of colleagues kindly appraised the literature list and added other works to it. In total, 258 articles, text and policy documents were identified and reviewed.

The Nature of the GPR Curriculum

There is an inherent dichotomy in the literature about the curriculum for General Practice training, between the political need and desire for competency curricula (product) and accountability (product) and a professional desire for a more holistic approach that ultimately values individual experience and development (process) (Allen 2001, Smith 2004). Moreover, there is no agreed curriculum for the GPR year

or General Practice training (Thomas *et al* 2003). The learning theories that have most influenced training are those of the Reflective Practitioner, Transformative Learning Theory, elements of Experiential and Adult Learning Theory, and Apprenticeship Learning (Kaufmann *et al* 2000, Neighbour 2000). The consistent approach to learning in the GPR year as advocated in the literature relates to the value of clinical experience, critical reflection, and one-to-one tutorial and peer-based group activities as the bases of a successful curriculum (Neighbour 2000, Pendleton *et al* 1986, Newble and Entwistle 1986, Samuel 1990, UEMO 2003). The JCPTGP (2002) has framed its most recent policy document within the principles of adult learning (modified from those of Rodgers 1996) and advocates that training should involve learner-centred learning, voluntary participation in learning, mutual respect between trainer and GPR, and be collaborative. It also now requires that Directors of Postgraduate Education state their aims and objectives of the GPR year and include the following:

- Induction to general practice
- Outline of curriculum planning that is needs-based and trainee-centred
- Outcomes of the year
- Management of and support for the GPR assessment process
- Regular, documented formative appraisal combined with 360 feedback and performance review to determine curricular content
- Maintenance of teaching logs and diaries
- Provision of a wide and varied range of tutorials, including random case, problem case, and subject specific
- A system for teaching and assessing communication skills
- A system for teaching and assessing clinical audit

- Encouragement and provision of time and support for the GPR to reflect on their practice
- Ensuring systems are in place for the GPR to keep up to date

The JCPTGP have consistently stressed the importance of a menu of approaches to learning in the GPR year and have published a number of standards of educational activity, processes and methods which training practices are required to meet. These include the GPR having two tutorials per week, protected study time each week of three hours, attendance at half day release programs and access to funded courses identified on the basis of their learning needs. The half day release programs are considered essential by the JCPTGP to provide GPRs the opportunity to gain insight into general practice, orientation, peer support and an introduction to self-directed and problem based learning.

The curricula that are produced both nationally and locally tend to be based on the following curricular models: Objectives based, Process based or Product based (Kelly 1982). While the objectives model is more common in hospital practice than general practice (Dilworth and Mitchell 1998), the most common model in general practice is the process model derived from the work of Stenhouse (1975) with a focus on 'knowing how'. Its content tends to be based around how the learner learns, i.e. methods (video, tutorials etc), and the trainer adopts the role of facilitator. This model places emphasis on the skills of the trainer and has been widely adopted in training.

Competency based models are becoming more prevalent. According to Eruat (1994) they have two dimensions: scope (tasks) and quality (expertise of the tasks). It is

claimed that they provide, openness, clear objectives, precise assessments and set targets and expectations for students. The model has been recently applied in training in five main areas: Competency based portfolios for GPRs (Challis 1999), communication skills (RCGP 2003), selection of doctors for training (Paterson *et al* 2000, Norfolk *et al* 2002, Norfolk 2004), Specialist Training Programs (DOH 2002), and by the GMC (GMC 2001).

A modified approach has been advocated which combines generic competencies and specific tasks that are considered mandatory and yet preserves individual learning and motivation. Harden refers to this as the 'spiral curriculum' which involves an iterative process of revisiting themes with a developing and deeper understanding at each revisit, built on established clinical experience (Harden and Stamper 1999). This model is gaining prominence in medical education as it is thought to balance the political and social need for competency with the professional need for individual and professional development.

The promotion and development of self directed or autonomous learning is considered by many as an important aspect of the GPR year (Coles 2001, JCPTGP 2002). Thus, there has been a greater emphasis placed by the JCPTGP, the RCGP and the NES on the educational environment (Smith 2004) and skills of the trainer than the prescribed content of the GPRs learning.

The Role of the GP Trainer

The GP trainer/GPR relationship is highly valued by GPRs and the tutorial process is considered central to focusing and developing their needs-based learning (Aquinno

and Jones 2003, Caird and Ogden 2001a/b, Coles 2001, Downie and O’Brein 2001, Freeman *et al* 1982, McKinstry *et al* 2001b, Munro *et al* 1998, Neighbour 1999, Roscoe 1994). Though GPRs value tutorial time with the GP trainer, it can have drawbacks, particularly if it is too GP trainer centred or is a collusive experience (Pitts 1996, Taylor 2001). A positive GPR/GP trainer relationship, according to Taylor, is open to regular informal contact and promotes the development of an individual curriculum, facilitated appraisal, and focuses on patient-based learning. However, Taylor identified that 20% of GPRs had relationship difficulties with GP trainers which interfered with their education but, despite this, GPRs still wished to retain the one-to-one relationship. According to Taylor and Neighbour (2000), the one-to-one apprenticeship model allows GPRs to move from “knowing what to knowing how” and they and others argue that it is crucial to the GPR acquiring procedural knowledge and the ability and confidence to critically reflect on and justify their clinical judgments (Eraut and du Boulay 2001, Peile *et al* 2001). The importance of a guided one-to-one relationship is critical, it is argued, for the professional development of the doctors in training, their transition from novice to expert, and for promoting self-directed learning (Coles 1994, Downie and Elstein 1994, Neighbour 2000).

For Taylor (2001), Neighbour (2000) and Khanchandani (2003), the GP trainer has a key role in identifying the GPRs learning needs and converting their experiences into positive learning outcomes and changes in clinical practice. Anxiety on the part of the GPR is recognised as a potential block to this process (Weber 1982, Neighbour 2000). Stewart *et al* (2000) and Carlisle (2000) argue that confidence in medical practice is linked to personal anxiety and not to perceived competence. An important aspect of the learning environment is, they argue, the need to reduce anxiety and create and

environment in which experimentation and failure is possible and acceptable (Neighbour 1999, Smith 2004).

The process whereby GPRs define and develop their own learning, Scallon *et al* (2002) and Neighbour (1999) argue, is essential to their continuous professional development. McKinstry *et al* (2003) found that GPRs were capable of identifying the learning needs of their trainers and their identification of the trainer's learning needs was similar to that of the self-rating by their trainers. However Savage and Savage (1994a, 1994b), Sackin (1994) and Shah *et al* (1996) found that GPRs were not capable of defining their own learning needs and could not set and adhere to a self constructed curricula. These studies, in contrast to that of Scallon *et al*, were short intervention studies and did not engage with the GPRs over time nor involve them in interpretative dialogue during the research process.

The concept of the trainer as a mediator, supporting and developing GPR learning strategies, identifying learning needs, promoting self learning and ensuring that clinical experiences are positively managed has been very influential in general practice training and has shaped many of the JCPTGP and RCGP policy statements on the GPR year (JCPTGP 2002). The central role of the GP trainer as mediator has been shown in several studies of tutorial teaching (Pitts *et al* 1995, Ruscoe 1994). The relationship between the GPR and the trainer is identified in the literature as the single most important factor in the GPR year (Taylor 2001, Neighbour 2000, Tate 2004). There has been a greater focus placed on the nature of this relationship and the skills required of the GP trainer than on the specific content of the curriculum (JCPTGP

2002). This is consistent with a process approach to the curriculum where emphasis is placed on trainer skills and development (Smith 2005).

Managing Uncertainty in General Practice Training

Neighbour (1999) has defined general practice as ‘managing the art of managing uncertainty’. The concept of uncertainty is one that is central to postgraduate medical education and though frequent references are made to it in textbooks, there have been few studies into the nature or management of uncertainty in GPR education and learning (Strachan and Evans 2002). There are not infrequent references in the literature to ‘anxiety’ or ‘stress’ but in the studies where GPRs have been interviewed they appear to be describing anxiety and stress as a result of feeling uncertain. The reasons it is thought that GPRs experience uncertainty are the following:

- Reduction in peer support. The hospital is a social environment in which junior doctors meet with peers and people their own age and are capable of sharing concerns and problems. General practice is a relatively isolated environment with GPRs spending periods of time on their own and with few immediate peer contacts (Percy and Dale 2002).
- GPRs are dealing with a new population base in general practice compared to that in hospital with a different prevalence and incidence of illness and disease (Neighbour 2000).
- Clinical decisions are often made in isolation, unlike in hospital where there is much more team working and decisions are hierarchical (Scallon 2003).
- GPRs are required to take final clinical responsibility for their clinical actions without constant reference to a senior doctor (Sim *et al* 1996).

- Clinical encounters or illnesses of which they have very limited or no experience since being a medical student (Smith 1997).
- Cultural or social issues that impinge on clinical decisions and with which they have no familiarity or for which they feel personally unprepared (Toon *et al* 1997).
- Limited knowledge, especially initially, about the systems and practices in general practice e.g. referrals (Summerton 2004).

According to Neighbour (1999), overcoming these uncertainties demands both an empathetic trainer and a learning environment that allows the GPR to overcome their fear of failure. Developing a method of managing uncertainty, according to Neighbour, is crucial to the learning and professional development of the GPR.

The traditional approach to managing clinical uncertainty during the GPR year has been either to provide more information (propositional knowledge) or guidelines within which GPRs should work (procedural knowledge) (JCPTGP 2002, SCPMDE 2001). The guidelines are either practice-based or developed by national bodies. The assumption is that providing information and guidelines about clinical and professional issues for the GPR helps them manage uncertainty. For example, the JCPTGP requires training practices to have a number of guidelines and specific protocols in place before approval for training is given. Though these certainly have some benefit, there are doubts about their use in practice because of the nature of uncertainty.

Hall K (2002) identifies three types of uncertainty of relevance to clinical practice and medical training. These are classified as:

- **Technical uncertainty:** this results from inadequate information being available to the doctor and/or the speed of growth of medical knowledge which can leave a doctor feeling not up to date.
- **Personal uncertainty:** this has its origins in the nature of the doctor/patient relationship and arises when the doctor cannot or does not understand the patient's wishes or views, or where there is an element of collusion in the management between doctor and patient. According to Hall, this type of uncertainty is common in doctors in training and principally results from a failure in communication or understanding.
- **Conceptual uncertainty:** this is where the doctor is unable to manage different patient needs because of competing resources, the lack of available funding, or service provision. Hall also contends that this area of uncertainty relates to the doctor's own understanding and experience of life and what the future for either individual patients or groups of patients may hold. For Hall, conceptual uncertainty is a reflection of the doctor's own world view and life experience and is not readily open to remediation by education or training.

Hall argues that the management of uncertainty in medical practice is more complicated than simply providing information and that a degree of uncertainty, particularly conceptual and personal uncertainty, is an inevitable element of decision-making in clinical practice, particularly for doctors in training. Given the possible types of clinical uncertainty, doctors may respond to it in differing ways which will

impact on their learning. Taylor and Brown (1988) have listed the following possible responses:

- Denial, either active or passive. Denial can impose a degree of clarity on a confusing situation, in some respects making the decision easier. This is something that doctors in training may be particularly prone to, i.e. they screen out information that is puzzling or confuses them.
- Upholding medical orthodoxy by doing what others do, a response that has been documented by the work of Eddy (1998). This creates a sense of security and professional reassurance, even if the actions are less than satisfactory, e.g. the way in which doctors in training deal with breaking bad news. They tend to follow established conventions and work patterns when in areas that they are uncertain about.
- Doctors may be reluctant to disclose uncertainty to patients and this is linked to claims that it will result in increased patient anxiety and suffering. However, others, such as Katz (1984), argue that the doctor's unwillingness to admit uncertainty is because they fear it will result in a reduction in power and control of the decision-making process. Katz argues that the open recognition of uncertainty will in the long-term facilitate trust and reduce unrealistic patient expectations.
- Uncertainty can lead to increased and arguably unnecessary clinical activity through a rise in hospital admissions (McKinstry 2000) and invasive investigations (Kassirer GP 1989).
- Uncertainty in clinical practice may lead students and newly qualified doctors to choose a medical career where there is limited uncertainty, or it may make them reluctant to deal with certain types of patients, for example psychiatric, geriatric or

those with chronic pain. Such patients are very much a general practice population (Meryl *et al* 1984).

- The establishment of guidelines and protocols which can lead to the illusion of clinical certainty. However, even when effective, this type of activity only affects technical uncertainty.

Others have identified the importance of heuristics in informing clinical practice and in reducing or managing uncertainty (Detmer *et al* 1978, Taversky and Kahnman 1974). '*Heuristics are a rule of thumb used in problem-solving but which make no guarantees*' (Perkins 1981). Heuristics are usually easily applied and appear to make complex tasks, such as clinical judgments and decision-making, more simple (Gigerenzer and Todd 1999, Kahnman *et al* 1982). They are not uncommon in clinical practice and three broad categories of heuristics have been recognised. These are:

- Representative heuristics: where probabilities i.e. outcomes or likelihoods are valued by the degree to which the given sample, patient or population of patients with which the doctor is dealing, matches the population. In general practice, this would mean that a GPR would interpret patient symptoms on the basis of their hospital experience, as this is their representative population. This would be in contrast to the experienced general practitioner whose population base is not hospital but general practice. One would hypothesise therefore that experienced general practitioners would respond differently to a patient's symptom (e.g. chest pain) than a GPR out of hospital because of their differing population bases.
- Availability heuristics: where the perceived probability of an event is influenced by the ease of recollection by the doctor. The more easily a past event is recalled, the higher the probability that the event that is occurring is similar. Critical events

or significant events will impose greatly upon decision-making, and anecdotes may have an influence on shaping clinical judgments where uncertainty is present, and this may run against the available scientific evidence. The place of critical events in shaping clinical decision-making is well established with doctors making decisions based on past significant events, for example one case of a febrile child who goes on to develop meningitis may influence a doctor's action in subsequent cases even though the incidence of meningitis is very low. The likelihood of availability heuristics would be increased in an environment that supports reflexive rather than reflective learning, and incidental rather than intentional learning.

- **Anchoring and adjustment heuristics:** In these a series of estimates is required to obtain the final prediction. In these instances, it is argued that people tend to create a prediction based on initial formulation anchoring and modify this when subsequent information arrives. There is an adjustment bias as a result of increased weight given to the initial information thereby causing late information to be used selectively. This is common in clinical practice and can lead to diagnoses being revised slowly or even not at all despite the substantive new information.

The role that these concepts of uncertainty in clinical practice could have on GPR learning is unclear and has not been explored in the literature. The environment in which GPRs learn may influence their long-term decision-making and clinical action. One can argue that identifying the type of uncertainty that GPRs are exposed to is critical if learning strategies are to be developed to manage it and reduce the development of potentially unhelpful heuristics. The literature review did not identify

any studies that had examined the influence of uncertainty on GPRs' learning or how in practice GPRs managed uncertainty, but this seems a critical area given the importance of managing clinical uncertainty in general practice.

GPRs' Views on the GPR Year and General Practice Training

A consistent finding from the literature review across a range of studies was that GPRs reported high levels of satisfaction with their experience of training. The satisfaction data was gathered from questionnaire returns (Ashworth and Armstrong 1997; Bonsor, Gibbs and Woodward 1998; Crawley and Levin 1990; Paterson and Pilgrim 2002; Peile, Easton and Johnson 2001; Sackin 1994; Taylor 2001); from focus groups (Dixon 2003, Percy and Dale 2002, Scallon *et al* 2002); or from individual interviews (Mirza 2005, Scallon *et al* 2002). The majority of questionnaires were not piloted prior to use and there was no consistency in the questions, thereby making comparisons between studies difficult. The questionnaires tended to be administered and reported by researchers with a professional interest or involvement in general practice training.

However, despite the limitations of the instruments used, the vast majority of GPRs value their year in general practice and find it highly enjoyable (Hand 2000, Hand and MacKee 2001). In particular, they valued the following: the GPR/GP Trainer relationship, the quality of the teaching, exposure to teamwork, the working and learning environment, half day release courses and the learning and educational support they received during the year. Half-day release courses in particular provided peer and personal support (Edwards *et al* 1988, Percy and Dale 2002). GPRs developed their medical and personal skills, their medical knowledge and professional

attitudes and felt that overall GP training prepared them for working in general practice (Kramer, Dusman and Tan 2003; Kramer, Jansen and Dusman 2003; Kramer Koos and Dusman 2003; Van Leeuwen 1995; Williams 1984).

The studies were mainly conducted at the end or near the end of their training, but several follow-up studies of GPRs that looked at subsequent career intention and conducted several months after the GPRs had left training suggested that GPRs, though they consider themselves competent at the end of the GPR year and able to take on a General Practitioner post, are unlikely to do so (Kelly *et al* 1999; Hansen and van Zwanenberg 1998; Marvel *et al* 2000; McKinstry 2000; McKinstry, Dodds and Baldwin 2001; Norris *et al* 2000; Sibbert 2003; Smith 1991, 1997). Part of the reason identified by the authors is that although GPRs felt clinically competent, they do not have the personal confidence or feel 'clinically capable' of taking on the role of a general practitioner, which they perceive as being much more than the sum of the parts of their training and involves a range of skills, particularly in relation to aspects of clinical, financial, practice and personnel management that they did not acquire during their training (Peacock 2002, Polnaya and Pringle 1989, Shah *et al* 1996, Stone 1994, Thornley 2001, Greenaugh 2001, Orme-Smith 1998). Grant and Staunton (1998) interviewed GPRs three years after completing their training and identified training needs in practice management, financial management and personal learning. The GPRs felt they still needed mentoring and support, particularly with patients who presented complex clinical issues and with practice-based issues. They did not feel that the necessary support was available to help them cope with these concerns and this may be an additional reason why they delayed becoming a general practitioner (Bowler and Jackson 2002, Johnson *et al* 1998).

Percy and Dale (2002), using GPR focus groups, identified that GPRs valued the year and felt they had received excellent teaching and clinical experience and that the half-day release courses were beneficial. They felt they had been included as team members and were well supported in practice. They also identified negative aspects of the GPR year, which were: time pressures, and a conflict between clinical practice and the assessment processes. GPRs felt the latter limited their ability to acquire the necessary skills to become a general practitioner. Unfortunately, the authors did not provide detailed data on what skills the GPRs felt they did not acquire. This study was conducted at the mid point in the year when assessment processes have a high profile and the GPR views may not be typical of GPR experience throughout the year. The conclusions of this study are not consistent with studies conducted at the end of the year when GPRs are more positive about the overall affects of the assessment process (Lough *et al* 1995a, Wakeford and Southgate 1992).

Only one longitudinal study was identified that interviewed GPRs over the course of the year and attempted to map their changing views, perceptions and learning experiences during the year (Scallon *et al* 2002). The study was primarily concerned with evaluating the Wessex area half-day release course. The study involved semi-structured interviews, focus groups and critical reflection with experienced educators. The feedback from the GPRs about the study process was positive and the authors concluded that by being involved in the interviews and focus groups GPRs enhanced their understanding and interpretation of half-day release group learning. The study identified that GPR perceptions of learning needs changed over the year. GPRs were initially considered to be naïve and passive learners who were largely unmotivated and not capable of self – direction. However, they valued group work, peer support

and the opportunity for reflection on their practice and as the year progressed they became increasingly self-directed in their learning, they learned to manage and accommodate uncertainty in clinical practice, and they developed their skills in listening to patients as well as becoming more confident when negotiating with patients around clinical management. The study was the only one identified where the researcher and the GPRs developed a sustained relationship and where the researcher adopted a GPR focus to the research and modified the areas of enquiry as the study progressed.

A number of other authors have argued that group learning processes such as half-day release encourage the development of what are termed higher learning skills, e.g. video analysis with peers, which would have been difficult or unacceptable at the beginning of the GPR year and not possible in a hospital environment (Ashworth and Armstrong 1997, Bedia 2003, Bolden *et al* 1998, Caird and Ogden 2001b, Coles 1994, Downie and O'Brien 2001, Hays 1992). As a result of group learning activity, there is some evidence that GPRs developed their interactive skills. Scallon *et al* (2002), Neighbour (1999, 2000) and Hays (1992) concluded that the GPR year is best thought of as a period of educational transition from the rather didactic teaching of hospital/medical school, which concentrates on propositional knowledge, to the more open-ended experiential learning of general practice which facilitates procedural knowledge. This includes the need to manage uncertainty in medical practice and to balance the biomedical model with a holistic model which takes into account patient's ideas, concerns and expectations and their autonomy and furthermore allows the doctor the opportunity for reflection on their practice. Scallon *et al* concluded that GPRs move from being naïve to deep learners over the course of the year and are

capable at the end of the year of determining their own learning needs and defining their own curriculum, both individually and with their peers.

In several studies, GPRs reported the value of feedback and formative appraisal (Pitts *et al* 1995, McKinstry *et al* 2003, Taylor 2001, Caird and Ogden 2001, Marvel 1991, Pendleton *et al* 1986) and this is the main educational difference they report between the GPR year and SHO years in hospital (Hand 2000, Hand *et al* 2003, MacKee 2002). In the hospital posts appraisal and feedback were often absent, infrequent or poorly done (Murphy and Kelly 2003). Formative appraisal and performance review were identified by the GPRs as important and in nearly all the studies it was indicated that poor or limited formal teaching could be compensated for if appraisal and feedback were provided. GPRs valued feedback because it helped them define their learning needs and provided them with reassurance that they were progressing satisfactorily. One effective method of providing continuous formative appraisal identified in the literature is through the use of reflective portfolios built around 360 degree appraisals, critical events and random case analysis (Peile *et al* 2001, Pendleton *et al* 1986, Pringle *et al* 1997, Rickensbach *et al* 1997, Shapiro and Talbot 1991, Sim *et al* 1999, Stewart 1999, Taylor 1998). It has been argued that where these are used, they promote guided reflection on professional practice and promote autonomy allowing the GPR to identify their own learning needs. This latter aspect, some argue, is important for preparing GPRs for independent general practice (Neighbour 1999, 2000, Snadden *et al* 1996, Challis 1999). However, though portfolios have proven valuable in the studies, their uptake and use by GPRs, even in the studies, has been relatively poor (Pitts *et al* 1999, Snadden 1999).

Two recurring negative aspects of the year were identified and loosely defined as “stress and anxiety” and “domination of examinations” (Dickson 2003, McKinstry *et al* 2001a, Scallion *et al* 2002, Sibbert *et al* 2003). What the GPRs meant by these definitions was not fully explored and the studies offered what Denzin (1989a) terms a ‘superficial description’. However, a consistent theme from the literature review of GPRs’ experience is that GPRs found the year too short (Scallion *et al* 2002). The assessment pressure, according to Sibbert (2003), made newly trained general practitioners averse to further continuing professional education. The effects of the assessment processes and the duration of training on the GPRs are explored in more detail later.

In summary, the GPR year from the GPRs’ perspective is educationally and clinically rewarding but there are indicators of possible stresses and pressures, particularly around the length of training and the impact of assessment. Moreover, there are few substantive studies looking at the GPR experience of the GPR year. The studies identified tend to be conducted by researchers with an interest in the outcome, i.e. Course Organisers and Associate Advisers, and the analyses are superficial rather than deep. There has been limited exploration and meaning of such phrases as ‘stress’, ‘conflict with assessment’ and ‘time pressures’, and though they are stated, they have not been explored further or contextualised. No studies have been identified which linked the experiences of GPRs to professional or career outcomes, or which have followed individual GPRs from their hospital training into general practice. With the exception of the study by Scallion *et al*, no in depth interview studies with GPRs were identified which explored their experiences over the course of the year.

Does doing a Structured General Practice Training Program Make a Difference?

There is an unstated assumption in the literature on general practice training and in the most recent policy statements on the future of medical training in the UK that training through structured programs such as a GPVTS is of value and produces GPRs who are “fit for purpose”. It is assumed that training programs are of more benefit than unstructured training in that they produce doctors who are more competent and clinically capable. What evidence exists to support this assumption?

There are methodological problems with studies in this area, but the limited numbers that exist have been developed mainly within a positivist paradigm and include:

- Pre and post training comparisons, for example comparing the performance of doctors who planned their own training with those who went through programs.
- Analysis of teacher and learner accounts and feedback on their experiences and satisfaction.
- Audits of general practitioner activity following training as a proxy measure of clinical effectiveness
- Analysing examination pass rates comparing those who went through programs with those who did not.

The underlying hypothesis in the majority of the studies is that GPRs who go through structured general practice training will “be better general practitioners”. ‘Better’ is defined very loosely and variably in the studies but is related to proxy measures of the outcome of care: what are termed as ‘quality indicators’. These quality indicators in the literature include statements that GPRs who have been trained through programs will:

- Do more preventative care and health education
- Conduct safe practice
- Be able to consult in a patient-centred manner
- Have the necessary knowledge and skills to function effectively in general practice
- Use resources in medical care appropriately.

The studies identified were not confined to the UK and therefore their applicability to the NHS general practice is questionable. There were very few UK-based studies comparing structured with unstructured training identified.

Studies by van Leeuwen (1995) in Holland, Freeman and Byrne (1976) in the UK and Duncan (1994) in New Zealand which compared pre and post training performance of GPRs demonstrated that GPRs who had been part of a formal training scheme scored higher on MCQ or other tests at the end of their training compared with those who did not go through a formal training scheme. The research by van Leeuwen was a longitudinal study over the course of a year. She demonstrated higher levels of knowledge acquisition by doctors on the training program at various stages during their training, and that their knowledge acquisition was related to program activity i.e. clinical work, but there was no correlation between their MCQ score and attendance at educational activities. A criticism of the study is that the MCQ tests were not validated and did not have any predictive reliability. Additionally, the content may have been related to both the training program activity and content, and therefore one would expect the doctors in training programs to perform better. Furthermore,

competition for programs is intense and therefore program doctors may have been a selected group.

Duncan (1994) used a scenario-based approach to testing by asking doctors pre and post program to outline how they would manage patient scenarios. From this she concluded that at the end of their year in general practice, the doctors demonstrated improvement in a series of domains including problem-solving and communication skills. Freeman and Byrne (1976) compared the performance of GPRs pre and post training with a group of established general practitioners in the UK. The GPR MCQ scores showed improvement across all areas and there was no difference between the scores of GP trainers and GPRs. In addition, personality testing on the GPRs showed that the poorest 15 GPRs pre course had converged with the scores of the best 15 GPRs post course indicating to the authors that GP training had an effect on attitude and behaviour as well as knowledge.

Kramer (2003a/b/c) in Holland conducted a large cross-sectional study to assess the acquisition of clinical skills of GPRs training for general practice. They used both a written test and an Objective Structured Clinical Examination (OSCE) at the end of training to assess the GPRs and compared their performance with established general practitioners. In the OSCE they found that GPRs performed the same in the integral skills as established general practitioners but performed better than the general practitioners at the technical skills. Studies by Richardson (1977) and by Williams (1984) both indicated an improvement in GPR scores in tests of knowledge after completion of training

Other studies have looked at the effect of training programs on skill acquisition. For example, Stone (1994) reported that trainees in family practice programs in Canada learnt significantly more about practice management than those who were not on programs. Shapiro *et al* (1991) reported that GPRs recorded increased confidence, increased knowledge and an ability to handle uncertainty, decision-making and patient communication following a year in general practice. Anyon (1987) in a 10-year retrospective evaluation of general practitioner vocational training in New Zealand interviewed in depth 10 general practitioners and reported that they had found vocational training highly beneficial in helping them in their future general practice. Wilton (1995) in the UK reported that time spent as a PRHO in general practice (4 months) left the doctor with a greater insight into community and hospital interface than those who did not go through such a program. Weston (1988) in Norway reported that one of the benefits of the vocational training was learning to acquire the skills necessary for effective primary care. Sim (1996) interviewed 18 GPRs 18 months after the completion of training and found that they reported increased confidence in managing doctor-patient relationships, increased paediatric and orthopaedic skills, increased knowledge of therapeutics and reduced anxiety levels as a result of completing vocational training.

Borgiel *et al* (1989) working in Canada demonstrated that general practitioners who had been through a formal training program performed significantly better statistically than general practitioners who had not been through a formal program in a range of quality markers of patient care. These included: patient satisfaction, accessibility, preventative measures, regularity of care and follow up of chronic diseases. They analysed medical records and conducted questionnaires and interviews to obtain their comparative data. Evidence from New Zealand (McMaster and Arroll 1992) indicates

that general practitioners who have undergone formal training programs are more likely to adhere to and be aware of protocols for chronic disease management. In Australia, Miles *et al* (1996) demonstrated that patients who attended vocationally trained general practitioners used fewer medical services than those who consulted non-vocationally trained general practitioners. Studies of doctors sitting the College of General Practitioner examinations in Australia and the UK have shown that vocationally trained doctors perform better than those who have not been through a formal training scheme (Spike and Vietch 1990, Walker 1983).

Three studies were identified that were less positive about the impact of formal general practice training. Kelly *et al* (1999) raised concerns about general practitioners' practical skills at the end of training and McKinstry *et al* (2004) found no correlation between GPR scores in the video component of the MRCGP exam and patient satisfaction scores in relation to their consulting. Furthermore, McKinstry *et al* demonstrated a decline in the patient satisfaction consultation scores over the period of training. Grant and Staunton (1998) found that GPRs in the first three years after training still lacked confidence in practice management and self-directed learning.

In summary, there have been few large, well-designed, outcome-based studies on the effect of structured training programs on GPR learning and outcomes. The evidence that is available suggests that as a result of participating in a training program a GPR's knowledge base is greater; they have increased confidence as a general practitioner; patient satisfaction with their service is higher; they have a greater number of specific skills; and they have reduced levels of anxiety with an increased ability to cope and manage uncertainty in clinical practice.

However, the results need to be interpreted with caution as no studies mapped the outcome of the training onto the training curriculum or aims of the training program, nor did they control for the possibility that the doctors on the program may be a skewed population or take into account the possible effects of the research process itself. The studies described have, in the main, been retrospective or highlighted positive findings from a menu of responses from GPRs. One worrying finding is that of McKinstry *et al* (2004) because most of the vocational training programs have stated the aim of increasing patient-centred consulting. McKinstry *et al* demonstrated that this did not appear to improve over the training period.

The Hospital Component of General Practice Training

The JCPTGP require doctors training for general practice to spend two years in hospital posts (JCPTGP (2002)). Though not directly relevant to the aims of this study, a review of the literature on the hospital component of training identified concerns about both the relevance and quality of the training (Bourne *et al* 1999, Bruch *et al* 1997, Cooke and Hurlock 1999, Davis *et al* 2000, Field *et al* 2001, Paice 1998, Pease *et al* 1999). The published literature and data from the JCPTGP indicate that a significant number of hospital posts are failing to meet agreed national training standards in the following areas:

- Inadequate systems of structured educational appraisal (Murphy and Kelly 2003).
- Insufficient time available for teaching (Leverton 2000, Rickenbach *et al* 1997).
- Insufficient outpatient experience (Hand 2000, Hand and Adams 1998, Hand *et al* 2003).

- Lack of involvement in clinical audit (Hand *et al* 2003, Kearley 1990).
- Too many educationally unproductive tasks (Hand and Adams 1998).
- Inadequate clinical supervision (Grant *et al* 1989, Paice *et al* 1997).
- Poor induction (Hand 2000, Ogg *et al* 1997).
- Difficulty accessing study leave or library facilities (Baker and Spalding 1994, Evans 1997).
- Excessive and concentrated workload (Kearley 1990, Wall *et al* 2001).

Hand *et al* (2003) argue that posts could be made more relevant to general practice by increasing the doctor's exposure to out-patients, having better organised teaching with more small group work, focused appraisal and feedback, less ward work and more communication skills teaching. A study by Durguerian *et al* (2000) found that 75% of hospital educational supervisors felt they needed training in appraisal. A recent review of the impact of European Working Directive and New Deal (NHS Management Executive 1994) on the education and training of junior doctors indicated that the reduction in hours and increased shift working was having a detrimental affect on their education and learning in hospital, with less time for extended learning, little continuity of educational supervision, difficulty attending educational events and increased work pressure (Scallon 2003).

Studies by Thorley (2001) and Smith (1991) reviewing the impact of spending time as a junior doctor in obstetrics indicated that exposure to specialist care during training in hospital may not always have the anticipated outcome when doctors move into general practice. Thorley surveyed 30 SHOs in obstetrics & gynaecology and found that though their clinical confidence increased, they had a more negative attitude

towards inter-partum care and were less likely to undertake inter-partum care in general practice. Smith (1997) found that general practitioners who had hospital obstetric experience were no more likely to undertake intra-partum community care.

On a positive note, Hand (2000) found that GPRs did value certain aspects of hospital training which were: managing emergencies, gaining an insight into hospital working, understanding referral patterns and who and what to refer to hospital, being able once in general practice to inform patients about hospital, an increase in their clinical confidence, the social aspect of hospital working. They also valued learning aspects of specialty, working and new and developing ideas and technologies in medicine, and they reported increased clinical confidence with the increasing length of time they spent in hospital almost independent of the specialty training they experienced. The increased confidence appeared to be a reflection of the duration of their training rather than any particular part of it, implying that the most important factor in improving clinical confidence is the length of time the doctor has spent in clinical practice.

In summary, the evidence from the literature is that hospital training for GPRs at SHO level is of variable quality and relevance, with the majority of the posts not meeting nationally agreed educational standards. Despite this and the increased work pressure from the European Working Time Directive, GPRs still value aspects of hospital working and it would be reasonable to exercise caution before considering a move to community-based programs as advocated by JCPTGP.

The Effect of the Assessment Process on GPRs during the GPR Year

Assessment Methods

There are two assessment processes in place in general practice training, one is mandatory - Summative Assessment, and the other voluntary - the MRCGP exam, though upwards of 90% of GPRs sit it (RCGP 1999). The MRCGP was introduced in 1965 and the most recent syllabus was published in 2003 (RCGP 2003). The exam is peer-referenced and the pass rate is set by the RCGP at 70%. The exam is made up of four modules: a video of consultations, two written papers and an oral examination. Moreover, there is a published blueprint and a body of data on both the scoring systems (Bingham *et al* 1996) and content validity (Munro *et al* 2000).

Summative assessment was made mandatory in 1998 and all GPRs have to have passed it before they can receive a Certificate of Satisfactory Completion from the JCPTGP. Summative assessment is a criterion-referenced examination and is an assessment of minimal competence. Consequently, 99% of GPRs pass it. It is composed of four modules: a video consultation assessment which is similar but not identical to the MRCGP, an MCQ examination, a Trainer's Report and a written piece of work, usually a completed audit cycle. The examination has been described as 'high stakes, low quality'. Since its introduction in the West of Scotland in 1996, it is estimated that throughout the UK, it has stopped around 180 doctors progressing into General Practice because of inadequate skills or knowledge (Murray 2004).

In 2001 a single route for the video consultation modules was agreed whereby GPRs submit a video for the MRCGP examination and if they pass, they automatically pass summative assessment. Candidates failing the MRCGP video examination have their

video passed to the summative assessment process for independent assessment. Candidates now only need to produce one video tape of eight consultations for submission to both processes. The rather tortuous and at times fragile relations between the JCPTGP and the RCGP over the assessment processes have reflected unfavourably on the profession. The inability of the two organisations to reach agreement means that GPRs who wish to complete their training and become members of the RCGP have to sit six assessment modules, five of which must be taken during their GPR year. This had led to concerns about the dominance of assessment during the GPR year and a dislocation between the desire of GPRs to sit and pass both assessments and the commitment and willingness of trainers and course organisers to provide support (Irish and Ham 2003, Swanwick 2002, Patterson and Pilgrim 2002, McKinstry *et al* 2002, Dixon 2003)

Both assessment processes have been researched and are subject to peer review. Hutchison *et al* (2002) in a recent systematic review of postgraduate medical examinations identified 55 papers worldwide that met their inclusion criteria and of these, sixteen were on summative assessment in the UK, which included:

- Inter-related reliability (Cox and Mulholland 1993, Fraser *et al* 1994a, Campbell *et al* 1995, Johnstone *et al* 1997)
- Internal consistency (Cox and Mulholland 1993, Campbell and Murray 1996).
- Examination stability (Allan *et al* 1998).
- The development of the instruments (Cox and Mulholland 1993, Fraser *et al* 1994, Lough *et al* 1995b, Johnstone *et al* 1996a, Evans *et al* 1996).
- Content validity (Fraser *et al* 1997, Johnstone *et al* 1996).
- Construct validity (Allan *et al* 1998).

- Concurrent validity between instruments (Campbell *et al* 1996) and concurrent validity with external instruments (Kelly *et al* 1999).

Two main criticisms of the assessment processes in general practice are evident in the literature. The first relates to the process of assessment and is primarily concerned with its impact on learning during the GPR year. The second relates to the content and purpose of assessment and is concerned with the validity of the assessments and whether they are appropriate and relevant ways to assess a GPRs capability for professional practice. These two areas are discussed in turn.

The Impact of Assessment on GPR Learning

The limited number of published studies of GPR attitudes to assessment has produced mixed results, which may be explained partly by the timing of the studies. Lough *et al* (1995a) asked GPRs about the impact of the audit component of summative assessment, and the majority reported that the audit project was their first experience of clinical audit and that doing it had increased their confidence to try and influence and bring about changes in practice. In relation to MRCGP, Wakeford and Southgate (1992) reviewed the impact of the introduction of critical reading into the exam (CRQ paper) by administering a question on learning behaviours to a large cohort of GPRs before and after the CRQ paper was introduced. They showed that in both years, routine practice work was more important to candidates than practice-based teaching, text books or conferences, and in the second year (after the CRQ introduction), there was a statistically significant increase by candidates in the reading of medical journals and a reduction in the use of text books. Dixon (2003) found in an interview study that GPRs believed that preparation for the video component of exam had improved

their consulting skills and preparation for the written papers had an impact on their reading particularly of original and review articles. Furthermore, in preparing for the oral examination they believed they increased their reflection and understanding of ethical and professional issues in practice. Dixon's study found that GPRs wished to engage with the MRCGP exam and that in retrospect they recognised, the positive effect it had on their learning.

Snadden *et al* (1996) raised concerns about the narrowness of the assessment process and its potential to restrict GPR learning. Percy and Dale (2002) found that GPRs felt pressured by examinations. Bonsor *et al* (1998) argued that the assessments dominate the year to such an extent that they do not allow GPRs to develop some essential practical skills for general practice, and this results in the GPRs deferring entry into the profession. Neighbour (2003) argued that the power imbalance in the assessment process between GP trainers and GPRs is potentially obstructive to the mentoring and facilitatory relationship, which is necessary to promote professional development. Smith (2003) reported that although GPRs felt that they were under time pressure to complete the audit component of summative assessment, it focused them to think strategically and to develop co-operative team skills with other members of the primary care team. McKinstry *et al* (2001b), in a questionnaire study, found that an identified need for GP trainers was greater knowledge and understanding of the assessment processes. Norris *et al* (2000) reported that when training was extended, GPRs felt much less stressed about assessment. This work is confirmed by other studies which have looked at the effects on GPRs of extending the GPR year (Sibbert *et al* 2003, McKinstry *et al* 2001a).

A critical component for GPRs appears to be the support provided by their GP trainer for the assessments whereby GPRs who felt well supported felt less stressed, but the level of support is variable (McKinstry *et al* 2001b). The JCPTGP advises that GP trainers should have an understanding and commitment to assessment processes. However, Swanwick (2002, 2004) argues that the present antipathy from course organisers and GP trainers towards assessment is unhelpful for GPRs and the antipathy is more to do with them feeling that they have to surrender authority to an external body such as the RCGP and that they are losing control of the curriculum and their GPR. The failure of trainers and course organisers to engage with the assessment process has resulted in GPRs forming self-study groups to promote and to develop the necessary learning. Scallion *et al* (2002) found that independent study by GPRs was directed towards 'high stakes' issues, such as summative assessment and the MRCGP exam. This is confirmed by Rhodes and Wolf (1997) who examined the learning impact of the assessments on GPRs and found that in the middle of the year they were their main focus of their learning. McAvoy (2003) argued that the GPR year is unbalanced because of the burden of assessment but provides no evidence in support of this statement.

Irish and Ham (2003) found that GPRs prioritised their self learning toward assessments and felt that the formal teaching was of limited value. Patterson and Pilgrim (2002), reviewing the performance of GPRs in South East Scotland in the MRCGP exam, found a correlation between their performance in the exam and participation in a self-managed exam peer group. Dixon (2003), in agreement with Patterson's study, found that in preparing for the assessments GPRs valued self-study groups over formal methods of teaching.

In summary, there is an active debate in the literature regarding the effect that the assessment processes may have on GPR learning during the GPR year. There have been very few in depth studies of GPR reported experiences. However, there is evidence in the literature that GPR learning is promoted by the assessment process particularly the formation of self-directed learning groups and that the exam does have positive outcomes on GPRs' attitudes to both consulting skills, critical reading and clinical audit.

The Content and Purpose of Assessment

A theme in the literature is that the assessment methods are driven by what is measurable rather than by what is important in professional practice (Carr 1995; Eraut 1994, 2001; Eraut and du Boulay 2000). Neighbour (1999) and Pitts and Coles (2003) have argued that the purpose of assessment is divorced from the realities of how professionals learn, and that the present assessment methods fail to assess important professional skills and attributes.

Pitts and Coles (2003) argue that the present assessment processes are based on a technical rational model of professional practice. This model views professional practice as a series of technical activities or competencies which are visible, observable and measurable. Within this model competencies are framed in such a way as to avoid ambiguity and conflicting evidence, thereby simplifying professional activity. They acknowledge that technical competencies are important and that it is necessary to ensure, for public safety, that doctors are technically competent, but the present emphasis of the assessments is on clinical knowledge rather than professional judgment, problem definition, and the management of uncertainty. These latter

qualities, it is argued, lie in the heart of professional activity and the novice/expert shift (Downie and O'Brien 2001, Eddy 1998, Shootoo and Biott 2002).

Furthermore, Pitts and Coles have argued that the assessment processes in general practice are dominated by psychometrics with an strong emphasis on reliability over validity, and this has lead to the assessment processes driving learning in ways that may not be to the long term benefit of the GPR. They argue for a professional 'artistry model' of practice. In this model complexity and uncertainty are viewed as being at the heart of professional practice and there is a stress on understanding rather than competence. The components of the artistry model are reflection, a range of interpretations of patient-based problems, an acceptance that data in any assessment is subjective, that professionals are essentially autonomous, that they self regulate and that progress in professionals occurs through development not regulation. They argue that the emphasis of the assessments is limiting more meaningful educational approaches to educational development and professional assessment. For GPRs, they argue, the important question is 'what to do when' and GPRs need to focus on the uncertainties rather than on the certainties (i.e. protocols) of practice (Pitts *et al* 1999). Moreover, they argue that the emphasis on psychometrics ignores the essential nature of professional practice as discussed by Eurat (2001) and Carr (1995).

This debate is part of a wider debate in Medicine about what constitutes professional activity, the nature of professional practice and the expert novice/shift. The work of Schon (1983) has been influential in this debate. Schon has argued that the technical rational model of professional practice views professionals as problem solvers but ignores the important issue of problem definition and setting. There is concern that the

technical rational model has led to a restricted and narrow approach to task-based learning in general practice. For Schon, problems do not present themselves in professional practice but have to be constructed by the professional during the course of his daily work. According to Schon, the professional in his daily work occupies a 'swampy ground' wherein 'messy but crucially important problems arise and when asked how to describe their methods of enquiry they speak of experience, trial and error, intuition and muddling through'. For Schon, experts' knowledge is revealed 'in action' and their activity is essentially 'craft like'. To the advocates of this model of professional working there are dangers in applying positivist methods to evaluating professional craft or artistry. Consequently, a modified or holistic approach has been advocated which combines generic competencies with specified important tasks (Coles (1994, 2000). The model seeks to attempt to find a balance between the necessary tasks and skills a doctor requires to be able to demonstrate and their professional capability (Putman and Campbell 1989, Eynon and Wall 2002).

The positivist view of medicine as a body of established and proven scientific facts which the doctor applies in clinical practice underpins many of the present assessment processes. Sober and Hamm (2001) and Dreyfus and Dreyfus (2001) have argued against this construct of professional working. Sober and Hamm view professional practice as a continuum from intuition through to the application of scientific and experimental knowledge, and where the doctor operates along the continuum depends on the nature of the task. Therefore, assessments that predominantly focus on knowledge will tend to miss important areas of professional work. For Dreyfus and Dreyfus, the type of approach a doctor uses is not so much determined by the nature of the task as by his/her level of expertise. Novices (GPRs) tackle a problem

analytically through its clinical sub processes, whereas the expert (GP) has a much better developed and well organised internal store (pattern recognition) and can apply both propositional and procedural knowledge in their working environment (Summerton 2004). Novices have propositional knowledge but it is decontextualised, and they have limited procedural rules within which to apply it. This is consistent with work of Kramer (2003), comparing the performance of GPRs with established general practitioners in OSCE assessments.

In summary, assessment during the GPR year does have an effect on GPR learning. Critics of the present assessment methods (Coles 2001, Irish and Ham 2001, Swanwick 2002, Toon 1994) argue that the technical and competency-based assessments will determine what GPRs learn and how they approach professional learning in future. In support of this, there is some limited evidence that general practitioners are de-motivated to learn on completion of their GPR year (Dickson 2003, Scallon 2002). However, others (Lough *et al* 1995a, Wakeford and Southgate 1992, Paterson and Pilgrim 2002) argue that the assessments produce a positive benefit not only in GPR knowledge and skills but also in learning behaviour. It is argued by others that assessment needs to be viewed in a wider social context and that the drive for competency-based assessments arises because of a lack of trust between the public and the profession, as highlighted by recent high profile cases (Irvine 1997). The debate has gained a further urgency with the publication of MMC and the formation of PMETB, both of which commit the profession to devising not only competency-based curricula but competency-based assessments (Allen 2001, Cavenagh *et al* 2000, Dilworth and Mitchel 1998, Hicks 2001).

Duration of GPR Year

A recurring theme in the literature is that the GPR year is too short, a significant number of the published articles are personal views or statements, position papers or editorials (Field 2004, Bain 1996, RCGP 1972, 1985a, 1990, 1996, Smith 1998). Johnston *et al* (1988) commented that as few as 24% of GPRs wish to become general practitioners immediately on completing their training and that GPRs take on average one year to enter general practice after finishing. The majority of them spend the additional year working either in a hospital or as locums.

In 1994 the RCGP (1994) published: *Shaping the Future of General Practice Training*, which identified the work pressures on general practice and the need to review training for it. The main pressures identified in the report were: a shift in clinical work from secondary care to primary care, the increased prevalence of chronic disease and the requirement to manage this in primary care, and the rise of patient expectation and consumerism. The themes were developed by the JCPTGP (2002), which argued that both the fall in recruitment of GPRs and the low numbers of GPRs becoming general practitioners reflected problems with the present system of training.

There is a significant amount of literature on the benefit of extending the time that GPRs spend in training. The published reports fall broadly into two categories, those that argue that training could be made more effective by extending the present time in general practice from one year to 18 months (Crawley and Levan 1990, Edwards *et al* 1988, Johnson *et al* 1998, McAvoy 2003, McKinstry *et al* 2001a, Norris *et al* 2002, Savage *et al* 1996, Sibbert *et al* 2003) and those that argue that in addition there is a

need to develop new models of training (Bower and Jackson 2002, Grant and Staunton 1998, Percy and Dale 2002, Savage *et al* 1997, Smail 2001, Thomas and Snadden 2000, Toon *et al* 1997). However, the studies are small, uncontrolled and there is little follow up of the subjects. For example, the work by Sibbert involved interviews with six GPRs who had an additional six months in general practice, and the interviews were structured and conducted at the end of the additional training period by the course organisers. They did not interview GPRs who were at a similar stage of career but had not had an additional six months.

The evidence available from the literature suggests that extending the time spent as a GPR may possibly lead to a reduction in 'stress' (Scallon *et al* 2002); an increase in their confidence in patient management (Grant and Staunton 1998); increased time for them to reflect on their learning (McKinstry *et al* 2001a, Sibbert *et al* 2003, Toon *et al* 1997); additional opportunities to acquire management and financial experience (van Zwanenberg 2003); an increase in preparation for independent practice (Johnson *et al* 1998); increased self-directed learning (Savage *et al* (1997), and the undertaking of a useful practice-based project (McKinstry *et al* 2001a, Sibbert *et al* 2003). However, the studies involved GPRs who had undergone an additional period of training and who were a self selected group rather than representative of GPRs as a whole. Finally, the interviews were conducted in the majority of the studies by interviewers who had an interest in the outcome.

One innovative scheme, piloted in London, (Toon *et al* 1997) was controlled and did find that GPRs who had gone through the modified community-based scheme with additional time in general practice reported higher levels of satisfaction, felt better

prepared for independent practice and had increased confidence in managing patients. This is the only new scheme that has been subject to external evaluation, though it required significant resources and was introduced to try and assist the recruitment of general practitioners into the London area.

The studies, however, have resulted in influential policy statements (JCPTGP 2002, Department of Health 2003a/b, RCGP 1994, 2000, 2001). Furthermore, both the Postgraduate Medical Education and Training Board (Department of Health 2000, 2003a) and the Scottish Executive (Scottish Executive Health Department 2004b) have committed themselves to extending training for general practice with a minimum time of 18 months spent engaged in this. Even so, community-based programs remain untested and although there are problems with the hospital component of general practice training, GPRs still derive benefit from it and any scheme to radically overhaul training should be piloted and evaluated.

In summary, an extension to general practice training is universally supported in the literature and while there is evidence that GPRs report higher levels of satisfaction with extended training, there is no evidence that extending training will increase the number of doctors training for general practice or the rate of transition of GPRs to general practitioners.

The emotional dimension of General Practice work

There is an established literature on the emotional dimension of work and the concept of emotional labour, which is relevant to this present study (Fineman 2000, Payne and Cooper 2001, Carr 1999). Hochschild (1983) described how organizations exploit

individual employees through the use of techniques of emotional management to meet organisational objectives e.g. customer satisfaction. Hochschild (1983) developed the term emotional labour for this process and argued that it can be stressful for the employee particularly when there is a gulf between their displayed emotion and their private feeling which can lead to the loss of personal authenticity. Employees can develop coping mechanisms to deal with emotional dissonance (Wharton 1999). Emotional labour can also, through the setting of emotional norms within organisations, reinforce gender stereotypes and power hierarchies and make it difficult for employees in atypical roles e.g. male nurse or a young female surgeon where they have to work within agreed stereotypes to gain peer or professional acceptance (Fineman 2001).

Two differing theoretical perspectives inform the literature on emotional labour; one from the psychoanalytical perspective views organisations as cultures alive with individual emotional dynamics that are expressed as dysfunctional organisational practices and the other from a social constructionist perspective which gives prominence to the way thoughts and feelings are displayed within the social context of the organization (Fineman 2001). For social constructionists emotions are intersubjective i.e. they exist between others. Within this paradigm organisations adopt existing societal rules but also define their own expectations of member's e.g. how doctors should behave (GMC 2001). This can result in potential emotional conflict when the two differ. Furthermore organizations, according to Frost (2000) acquire an 'emotional ecology' which can limit or promote an individual employees ability to respond compassionately to others within the work environment.

Sandelands and Bouland (2000) argue that the stories people tell each other about their work experience capture both the emotional ecology and their individual experience of work. When people talk about work they primarily talk about other people and the life of the 'work group' (p49). They reference their stories to things that are 'of' work rather than 'about' work and through narrative people express work related feelings. The work group is important and this was confirmed in a large study reporting doctor's feelings about their work which found that contact with their colleagues was the most satisfying aspect of their work (Eaton 2004).

Health care is subject to continuous change both in clinical practice and in public policy. The recent emphasis on a client orientated health care sector is an example of a change process that has an emotional dimension for employees (Horton 2005). Such change can create a dichotomy between organisational needs and expectations and the emotional experiences and feelings of individual doctors (Persaud 2004). Managing emotions in the medical workplace raises issues for doctors who are working in an organisational environment and professional paradigm which limits emotional involvement with patients but at the same time presents doctors with examples of emotional trauma and human suffering (epiphanies) that are difficult to emotionally disengage from (Berger 2000, Brotheridge and Grandey 2002, Evison 2001 Sweet 2003).

General practice is a stressful occupation (Davis 2000, Edwards *et al* 2002, Firth-Cozens 1998, Huby *et al* 2002, McManus *et al* 2004). There is evidence that stress amongst general practitioners is increasing (Sibbald *et al* 2000). Stress has both a physical and emotional dimension and can occur whenever 'private emotional concerns are mixed with an organisation's instrumental objectives' (Martin *et al* 2000

p128). Stress can affect 'subjective well-being, somatic health and the functional efficiency of individuals and organisations' (Lazarus and Cohen-Charash 2001 p45). It can originate either from the work environment (organisational), the individual or both (Holland 1995). General practice work occurs within a change environment and the content of the work is uncertain and challenging (Kmietowicz 2001). The work environment is not always supportive of individual general practitioners needs or acknowledges the emotional impact of their work (Huby *et al* 2002, Thompson *et al* 2001). The sources of emotional pressure in general practice are primarily related to the volume and content of the work (Evinson 2001), the nature of the demands placed upon the general practitioners time (Mechanic 2001), coping with significant events or epiphanies (Bowie *et al* 2005, MacKay *et al* 2004) and the emotional energy required to manage these demands (Kmietowicz 2001, Sibbald *et al* 2000, Thompson *et al* 2001). There is a professional expectation that general practitioners remain responsive to patients needs and that they do not carry forward emotions from one patient to another (Evinson 2001, GMC 2001). This can lead general practitioners to develop coping strategies which include the compartmentalisation of feelings and emotional responses which can potentially lead to problems coping with work related pressures (Edwards *et al* 2002, White 2005). This has been recognised as a potential risk for GPRs and in a several studies they have commented that they find general practice stressful (McKinstry *et al* 2001(a) Scallon *et al* 2002). The JCPTGP (2002) has attempted to reduce GPR stress by placing emphasis on risk management in training practices, the role of the trainer as a mentor to the GPR and on the educational environment.

How doctors manage emotions within their working setting varies but it can be a source of compassion fatigue and burnout (Anderson 1995, Davis 2000, Huby *et al*

2002, McManus 2004, Persaud 2004, Zuger 2004). Burnout is defined by Meyerson (2000) as comprising three parts: emotional exhaustion, depersonalisation and loss of a sense of personal achievement. Meyerson argues that doctors do not readily acknowledge emotional exhaustion or stress and that this is related to the beliefs and values of traditional medical practice, which include personal detachment, rationality and individual focus. The scientific legitimacy of medicine coupled with the belief in objectivism and reductionism lie at the root, Meyerson argues, of the need for emotional control. Furthermore when health workers emotionally engage it is often not recognised nor rewarded (Frost 1999). Burnout is perceived within medicine as an individual failing and the literature makes reference for example, to individual coping strategies, advice to doctors on how to manage burnout and the selection of medical students who have attributes that would make them less prone to develop it (Davis 2000, Peile and Carter 2005). There are few professional or organisational structures to accommodate doctors who are affected by it (Armstrong 1995). However evidence exists that the impact of negative experiences and emotions can be lessened by being a member of a supportive group or team (de Drue *et al* 2001). Recent trends in the organization of medical training in the UK have reduced team working for doctors in hospital (Scallon 2004). Teamwork is a core part of GPR training and experience (JCPTGP 2002) and this may help to support GPRs manage negative emotional experiences. The present study identified the importance of epiphanies in the GPR year and highlighted the emotional content of these for GPRs and the influence they have on GPR learning and development (p119 -131).

Accounts of individual doctor's experiences and working lives demonstrate the emotional dimension and impact of medicine on them (Holland 1998, Mathews and Bain 1998, Yellowlees 2000). There is evidence that writing about it is in itself

therapeutic (Bolton 1999). Mathews and Bain (1998) collated stories from general practitioners talking about their working lives and the social and emotional impact of it on them. Though the doctors were from different types of practice the emotional dimension of their work was consistent. A recurring theme is how they manage stress brought about by the emotional content of their work and one general practitioner summed up their attitude toward stress *“Stress is not a disease that we recognize in a big way here. Maybe it’s because I don’t recognize it in myself that I don’t recognize it in others.”* (P114)

General practitioners emotional response to work pressure is captured movingly in Berger and Mohrs’ (1968) meditation on the life of a rural general practitioner, which ends with the following quotation from the general practitioner *“Whenever I am reminded of death – and it happens every day – I think of my own, and this makes me try to work harder”* (p157). Berger and Mohr reflect on the use of denial by doctors to cope with emotional pain and uncertainty and conclude that burnout or becoming cynical is an outcome of the different values doctors hold of life compared with those of society *“one of the fundamental reasons why so many doctors become cynical and disillusioned is precisely because, when the abstract idealism has worn thin, they are uncertain about the actual value of the lives of the patients they are treating. This is not because they are callous or personally inhuman: it is because they live in and accept a society which is incapable of knowing what a human life is worth”* (p156).

Doctors remain popular with patients and retain high satisfaction scores in national surveys (Ferriman 2001). However morale and job satisfaction remain a cause for concern (Eaton 2004, Edwards *et al* 2002, Huby *et al* 2002, Sibbald *et al* 2000). Doctor’s emotional response to work is best thought of as one of ambivalence (Pratt

and Doucet 2001). What doctors feel about their work can be negative yet they value their abstract role (Odigne 2004, Kmietowicz 2001). They view themselves as coping with human suffering often in an unsupported management environment, with unreasonable expectations and social and political pressures placed upon them (Eaton 2004). The emotional impact of their work is reflected in outcomes such as falling retention and recruitment rates and in the number of health problems (alcohol consumption, marital failure and mental health problems) that are considered to be related to the emotional content of their work (Health Policy and Economic Research Unit 2000, King *et al* 1992, McKevitt and Morgan 1997, Pilowski and O'Sullivan 1989).

The emotional dimension of medicine involves coping with change and living and working in an environment that is uncertain and contains real human suffering (Edwards *et al* 2002, White 2005, Zuger 2004). The effects of this on individual doctors, their families and the profession as a whole are now being openly debated and have played a significant part in the new contracts for both general practitioners and consultants (Kmietowicz 2002, Mathews and Bain 1998). There is a shift within the profession from viewing emotional fatigue and burnout as individual weakness to a more compassionate and whole system approach that acknowledges the emotional dimension of the work and its potential outcome for the doctors. There is evidence that the NHS as an employer and the professional regulatory bodies are attempting to accommodate and manage this change (Berger 2000, Odigne 2004, Peile and Carter 2005).

General Practice Recruitment

There is growing evidence that there is a problem with general practice recruitment (Johnson *et al* 1997, Elliot *et al* 2002, Wanless 2003, Lambert *et al* 1996, Lambert *et al* 2002, Pritchard 2001). Despite government initiatives (Department of Health 2002, NHS Plan) to increase the number of general practitioners and recognition that a move towards a Primary Care led NHS is necessary, there have been problems with GPR recruitment and translation of GPRs into general practitioners. Recent data from Scotland (Hunter and Blaney 2004) suggests that there could be anywhere in excess of a 10% shortfall even on projected workforce modelling in general practitioner numbers by 2012. Scottish Health Department figures show that the number of GPRs in training in Scotland fell between 1988 (339) and 2003 (283). However, the proportion of female GPRs has increased from 42% in 1980 to 65% in 2003. Overall in Scotland the number of general practitioners has augmented by approximately 1% per annum from 1990 to 2003 with an increase in the number working less than full-time from 5% to 18.4%. Work in England and Wales has further confirmed that general practice is not only an unattractive option to medical students and to graduates but that there is an inefficient transfer from GPR into general practitioners (Taylor and Lees 1997). In a large cohort study of GPRs in England, Bower and Jackson (2002) found that although 96% of GPRs wanted to work in general practice, only 51% would consider doing so within a year after training, and overall only 48% intended to work full-time. There were no good conclusive longitudinal studies on the career destination of GPRs identified. What data is available from the literature suggest that less than 20% of GPRs progress to being a general practitioner within a year, and at five years under 50% are in a substantive post (Bowler and Jackson 2002, Lambert, Evans and Goldacre 2002).

One other concern is whether or not the right candidates have been selected for general practice training. Recently there has been an introduction of a competency-based recruitment system, which is now gaining currency throughout the UK. It is argued that by adequate prior selection of GPRs, this will enhance retention (Lane and Sacchan 2003, Patterson *et al* 2000, Norfolk T *et al* 2002).

Overall, recruitment and retention into training for general practice is a problem and it is difficult to determine from the literature whether the problem with retention is related to the duration of training, the work of a general practitioner or merely a reflection of the demographic and social changes that are impacting on the UK workforce (Wanless 2003).

Summary of the Outstanding Questions from the Literature Review

The literature review has raised a number of interesting questions. The majority of GPRs enjoy their training in general practice and find it a rewarding educational experience. There is limited data on what and how they learn, the determinants of their learning during the year, and what their lived experiences are. There is an emotional dimension to work as a general practitioner and a significant risk of emotional stress. The GP trainer's role appears crucial and there are emergent conflicts between how they perceive their role and the policy direction of training. There are pressures from the assessment process but it is not clear why these occur and if they have a lasting impact. GPRs are not electing to enter general practice but it is not clear why, though the commonest explanation appears to be that the time in training is too short and that by extending it recruitment will improve. Learning in

general practice seems progressive but the way GPRs learn and the main influences on their learning have only been superficially described. There have been no in-depth prospective studies of the GPRs' experience during the year and most of the research has a trainer or a researcher focus. The policy environment is complex but it would appear that the evidence base to support policy changes, e.g. the move to reduce the length of time a GPR spends in hospital, is variable.

The following questions remain:

- What are the learning experiences of GPRs?
- How do they learn? What are the main influences on their learning? How do these influence their clinical practice?
- What is the impact of the assessment processes on GPR learning?
- Why are GPRs delaying becoming general practitioners?
- How do GPRs experience and manage uncertainty?
- What is the relationship between the formal curricular statements and practice-based learning?

CHAPTER THREE

AIMS and METHODOLOGY

AIM OF THE STUDY

The aim of the study was:

To describe and interpret the learning experiences of GPRs during their year in general practice in the South East of Scotland.

From the literature review three main and two supplementary research questions were formed:

Main Research Questions

- What are the learning experiences of GPRs during their year in general practice?
- What are the main processes of learning during the GPR year?
- Do GPRs integrate their learning into their clinical practice and if they do, what are the main changes in their clinical practice?

Supplementary Questions

- Do GPRs reflect on their learning experiences and what factors promote and hinder this process?
- Do GPRs experience uncertainty during their year and if they do how do they manage it?

METHODOLOGY

'The essential meaning of life is in the daily living of it'

Tolstoy

A Summary of the Methods Used.

The study as described below was conducted within an interpretivist paradigm. The methods used were as follows:

- Open-ended interviews with GPRs. The researcher interviewed two cohorts of GPRs on three occasions during their GPR year. The interviews with cohort one occurred during the academic year 2002/3 and with cohort two during the academic year 2003/4. There were twenty four GPRs in each cohort.
- Six GPR focus groups were conducted during 2002-4. Experienced general practitioner educators ran the focus groups, with the researcher in attendance.
- Six focus groups with GP trainers were held in April to June 2003. These groups were run by experienced general practitioner educators with the researcher in attendance.

As part of the analytical framework, seven critical and interpretative dialogues were held in late 2003 early 2004 with senior medical educationalists

The Interpretivist Paradigm

This thesis is framed within an interpretivist paradigm and is influenced by the work of N K Denzin, and in particular *Interactive Interpretivism* (1989a) and *Interpretative Biography* (1989b).

What is meant by interpretivism? Schwandt (1994) argues that terms such as interpretivist and interpretivism are best thought of as ‘sensitising concepts’ (p118) as the particular meanings are often shaped by those who apply them. Schwandt suggests that such terms are “directions along which to look rather than descriptions of what to see” (p118). The terms are best thought of as “persuasions or approaches to models” and as “statements of particular commitments, purviews and concerns rather than as methods in themselves” (132). The interpretivist approach therefore, unlike the positivist approach, cannot principally be explained through an examination of the methods used in the research.

The interpretivist paradigm is concerned with how we can know about the world of particular human action and is ‘principally concerned with knowing and being and not methods per se’ (Schwandt p118). The aims of interpretivism can be achieved by a variety of methods of study that all invoke common actions, such as to “watch, listen, ask, record and examine” (p119). These methods allow the obtaining of materials at the core of which are the “stories people tell one another....and biographically meaningful experience” (Denzin 1989a p125).

Interpretivism aims to achieve, according to Denzin (1989a), “the goal of understanding the complex world of lived experience from the point of view of those who live it” (p2). The goal in this thesis was to attempt to understand the meanings

GPRs ascribed to their learning experiences. Such meanings are fashioned by the GPRs who actively engage in a process of social interaction with each other and the researcher, which is particular in time and place (situated). Within this paradigm, the duality of subjectivity and objectivity is resolved by acknowledging the hermeneutical character of existence (Schwandt 1994 p119). The researcher participates in the production of the meanings given to observed action by participation in a hermeneutical cycle of reflective interpretation. According to Taylor (1987), both researcher and participant lock into an interpretative cycle that seeks to define and verify meaning. This hermeneutical cycle of joint interpretation of meaning is a core component of the interpretivist paradigm and interpretations as such are always incomplete and unending. For Denzin (1989a p33) "The researcher can never get outside of the interpretative process. He or she is always part of that which is being studied".

Such a hermeneutical approach supports what Schwandt (1994 p122) terms a normative sense of method grounded in practical reasoning. Madison, quoted in Schwandt, states that the understanding of method is not about understanding rules but "more like the casuistic activity of using ethical principles to guide the making of ethical decisions (interpretation) in concrete situations" (p122). In developing a method of enquiry, there are no strict methodological rules that are required to be followed. The researcher, in developing a method of study, makes a responsible and necessarily justifiable decision about the method of study. The methods are judged in the light of the condition/activity the researcher sets out to interpret, using criteria for judgement such as coherence, thoughtfulness, etc.

Denzin (1989a) is credited with a post-modernist critique of Blumer's Theory of Symbolic Interactionism (1969). According to Schwandt, Blumer defined three premises of symbolic interactionism:

- People act towards objects on the basis of the meaning they have for them
- Meaning is derived from the social interaction amongst individuals
- Meanings are derived and interpreted through an interpretative process

Blumer advocated that the researcher enter the world of the participant and pay attention to the setting, behaviours and action of participants. The researcher's interpretation is derived from the both the participant's actions and "rich description" of what the participant is up to. For Blumer, the explanation of action always "hovers low over the data" (p124).

Denzin (1989a) draws on both feminist writings and cultural studies to argue that in order to be more interpretative, symbolic interactionism must shed its pretensions to ethnographic realism. Denzin advocates description over inscription and, unlike Blumer, does not seek to over theorise or decontextualise the "lived experience of respondents" (p124). For Denzin, the focus of research is on personal "troubles" and their relation to public "events". This is achieved by focusing on epiphanies, which are turning points or critical events in people's lives.

"The epiphany occurs in those problematic interactional situations where the subject confronts and experiences a crisis, often a personal trouble erupts into a public issue.... Epiphanies occur within the larger historical institutional cultural arena that surrounds the individual lifetroubles are always biographical, public issues are always historical and structural. Biography and history thus join in the interpretative process." (p10)

The interpretative process is based on thick descriptions and "thickly contextualised materials" (p83) derived from the participants. At the core of these materials are the

stories people tell each other. The stories “record more than what a person is doing, it presents the detail and emotion which evoke emotionality and self-feelings...(and) should be presented in the language, feelings, emotions and actions of those studies” (p83). To achieve this, Denzin outlines three interpretative criteria:

- The ability to illuminate the phenomena,
- in a thickly contextualised manner thereby revealing,
- the historical, professional and interactional features of the experience under study.

These are developed within the interpretative process, which comprises five stages:

1. Deconstructionism – critical analysis of previous studies
2. Capture – securing multiple naturalistic instances of the experience
3. Bracketing – isolating key or essential features under study
4. Construction – an attempt to interpret the event fully
5. Contextualisation – relocating the event or experience back in the world of lived experience.

Interpretative interactionism attempts to build emotional as opposed to cognitive understanding. Emotionality and shared understanding, according to Denzin, provide the basis for deep authentic understanding, and the key to this is thick description which “creates verisimilitude. It captures and records the voice of lived experience” and “attempts to unravel and record the multiple meaning studies that flow from interactional exposure...because no experience ever has the same meaning for two individuals, this is because meaning is emotional and biographical”(p102). The researcher must utilise their own biographical experience to formulate their interpretation, and the research methods of this approach include open-ended, creative

interviewing, life-histories, life-stories, personal experience and self-story construction, participant observation and thick description.

In summary, the subject matter of interpretation is therefore a “biographically meaningful experience” (p125) within which each person and each relationship studied is seen to be universally singular: “a single instance of the universal themes that structure the post modern period” (p139). Interpretative interactionism attempts to bring alive, problematic, often hidden and private experiences, and give meaning to everyday life as it is lived. The basic question that drives the interpretative approach is how do men and women live and give meaning to the experiences they have in their lives?

Relationship between the Researcher and the Participants

‘Value free interpretive research is impossible.....every researcher brings preconceptions and interpretations to the problem being studied. The term hermeneutical refers to this basic fact’

N.K. Denzin (1989a, p23)

The methodological paradigm and the research questions determined the method of study. However, in adopting the methods I was constrained by both practical considerations and my position as Director of Postgraduate GP Education (DPGPE).

The research questions required that data was gathered from GPRs that was of a sensitive and personal nature. The data related to patient histories, critical clinical events, clinical errors, interpersonal relationship, admissions of ignorance and of learning needs, and an exploration of personal sensitive feelings about being a GPR and about medicine as a career. The interpretivist paradigm maintains that the closer one can get to the subject and their world, the more authentic and rich the data.

As DPGPE I have responsibility for the training of the GPRs recruited to the study and ultimately have to sign off that they have satisfactorily completed their general practice training. Their initial contact with me is when they are interviewed for the training scheme. The only other contact they would normally have with me is if they had professional or performance problems or issues with their training. Their contact with me is under normal circumstances usually related to some regulatory aspect of their training. I believed that from their past experience at medical school and hospital training, the GPRs would be conditioned to view my situated authority with respect and to be apprehensive about involvement with me. Medicine is a hierarchical profession and it still confers a degree of patronage in how it dispenses posts and promotions. Therefore, I anticipated that there would be barriers between the GPRs and myself. It would be impractical to try and adopt the role of a participant observer or assume that they would consider me as a peer or see my role as researcher as devolved and separate from my role as DPGPE.

I was not naive about GPRs. I was a GPR in 1986 and I spent 9 years of my professional life (1990-99) working as a GP trainer, and latterly as an Associate Adviser and course organiser. I therefore had experience of their professional world and culture.

My situated authority and position are a fact and I could not hide nor deny this when devising the methods. I therefore had to adopt methods that were a compromise between the ideal of immersion and being alongside the GPRs with means that were practical, ethically acceptable and still provided access to meaningful and valuable data.

I viewed, for the purpose of this thesis, the training and education of the GPRs as an activity. The activity is composed of a series of individual and occasionally collective processes and experiences to which GPRs are exposed. I was attempting to revisit the GPR year as a learner with no preconceived ideas or assumptions about what I should find or what should be happening. I wished to try and find out what it is like for a GPR going through the training program in the South East of Scotland. Having an understanding of the experiences of GPRs would, I believe, help me as DPGPE to better understand their needs and to be sensitive to these when devising and implementing policies at both local and national levels.

The Role of the Researcher

The experiences chosen by the GPRs were those they considered suitable to share with me. These were most likely different experiences from what they would consider sharing with their peers, a non-medical researcher or friends. My access to data was therefore situated. This does not invalidate the data nor question its authenticity but contextualises it and limits its generalisability.

The nature of the research process required that I developed a sustained relationship with GPRs. The interviews were carried out over the course of a year and I engaged with and assisted GPRs with other needs outwith the research process. The nature and intensity of the interviews meant that I developed an extended role. I accepted this in order to gain an understanding of and, in many respects, acceptance by the GPRs. This approach led to me to develop four identifiable roles during the course of the study. These were:

- Researcher

- Teacher: which involved patient-based case discussion, medical and therapeutic knowledge, and clinical discussion and guidance being provided
- Facilitator: particularly with problem resolution which included patient, professional and inter-personal difficulties
- Professional mentor: providing advice on career development and, in several instances, health issues and personal issues that impacted on their professional work.

The roles of teacher, facilitator and mentor assisted me in my interpretative stance. They provided access to a rich source of data that I contest would have remained concealed and undeveloped. Through these roles I was exposed to a deeper and more personal experience. The role of teacher gave me access to information and experiences that enabled me to actively interpret and construct meaning with the GPRs as they struggled with real or ongoing problems and to track this through to its outcome. This role gave me privileged access to real patient-based problems and cases, as well as professional and ethical issues. As both a mentor and facilitator, I gained access to aspects of individual GPRs' personal and professional lives. This involved occasionally difficult and detailed personal, social and health issues that were disclosed during the interviews. It included assisting in difficult career decisions, advising on personal health issues and understanding the impact of life events on work and forming strategies to deal with these. The outcomes were personally rewarding and over the course of the research I was invited to two weddings and still remain in contact with individual GPRs.

The additional roles provided access to deeper experiences and provided events that would not have been accessible during the normal research process. These roles were unexpected, and at times both time-consuming and emotionally demanding. They provided an additional source of personal stress and raised professional and ethical issues, particularly with GPRs who were suffering from ill health. On reflection, they were the most emotionally challenging experiences I had during the research. They have had an effect on me both as a doctor and a teacher and brought me into deeper contact with GPRs in a way that my official role never had. The effects on the researcher as teacher are developed in the final chapter (pages 192-4). I believe that within the community of GPRs, this pastoral activity ensured that I gained a degree of respect and tolerance that aided their overall participation in the research process.

The Research Process: Interviews and Focus groups

I was seeking a method that would allow access to sensitive and authentic data that was required to address the research aims. Importantly, it had to both provide and generate thick descriptive data and take into account my position and situated authority. The method finally selected was a combination of in-depth interviews and focus groups which were designed to gather the participants' lived experiences, explore epiphanies, and gain access to their professional world to generate authentic data about this world. As researcher I was professionally and experientially linked to the participants and this linkage is instrumental in aiding both interpreting and constructing meaning to the data that emerges throughout the research process. Such an interactive process, according to Crotty (1998), allows for a critical review to occur by participants and researcher during the research process.

The interviews and focus groups allowed for the sharing of emerging data and the shared interpretation of the data. Sharing the data in this way fostered the opportunity for new and emergent meanings to be played in to the research and for these to be checked with participants. It also offered a degree of emerging face validity to the interpretation of the data. The research process therefore offered an opportunity to explore not only the content of the participants' experiences, but also the meaning of the experiences and the reasons for the participants wishing to discuss them. The methods therefore offered insight into how GPRs assemble meaning from their experiences and actively reflect on and interpret them.

Exploring sensitive issues required that I developed rapport, trust and empathy with the GPRs and this was considered crucial to allow access to authentic deep experience. The research method involved the participants not only sharing experiences but the researcher assisting the participants with issues, problems and dilemmas and engaging with them as individuals. As discussed later, this need for trust and personalised involvement led to the research process being revised.

The longitudinal approach adopted offered the opportunity to document and explore experience as it evolved rather than solely retrospectively. It offered the possibility of accessing the experiences of GPRs at different times during their year, and also of gaining an understanding of "how it is" as well as "how it was" for the GPR. The interview therefore allowed access to Schon's (1983) two dimensions of professional reflection: reflecting in action (how it is) and reflecting on action (how it was).

The experiences of the GPRs are placed within their own environment and the larger professional culture within medicine. The research process could gain access only to situated data and experience and they had to be interpreted within the context of the moral and ethical framework of the medical profession and within the subset of values inherent in general practice and primary care. The ethical and professional values and institutionalised and cultural norms that bounded the research process went largely unsaid during it, but formed the context in which the analytic framework is based.

This contextual positioning of the participants' experiences, according to Silverman (2001), means that participants' experiences can also be analysed not simply as an explanation for their behaviour or action but as a situated appeal to the rationality and moral appropriateness of their behaviour or experience. Such behaviours or experiences are variously referred to as moral tales, atrocity stories or significant or critical event stories. Such stories may be used by the participants in interview as a way of giving vent to feelings that went unexpressed at the time of the event they are describing or the experience they recall. These critical events or moral tales can therefore be viewed not simply as experience statements but as a reflection of embedded beliefs and feelings that underlie the experience. In such an analytical framework, the emotive power of the narrative remains but it opens up to interpretative meaning. The GPRs are appealing to the researcher to be understood within the shared social and moral framework and the values and beliefs that are embedded in their current professional role. The tales therefore provide insight into how GPRs construct and understand their socially and professionally determined values.

Such tales are thus both open to literal (what happened) and metaphorical (what does this signify?) interpretation. It is conceivable that GPRs offer up tales that represent deeper feelings or emotions that they cannot readily access. In doing so, the interview process shifts from a passive logging of data to developing a reflective and shared meaning and understanding of the tale. This is a process that is well documented in clinical practice and includes such important concepts as the patient's hidden agenda (Balint (1957). The purpose of the interviewer then becomes not simply to elicit the critical events or moral tales but to reflect on the pattern and portrayal of the subject's experience (Silverman 2001). As Denzin (1989a) states in Interpretive Interactionism:

'Capture involves going into the world of the social experience where the how questions occur. It directs the investigator to obtain self stories and personal experience narratives...these narratives are symbolic expressions shaped by the cultural and meaning systems of social groups. In capture the researcher identifies how the cultural practices of social groups shape the narrative and the symbolic expressions persons give to their experiences.' (p127)

Furthermore, the interviews offer the opportunity to explore the use of what Eraut (1994) terms mediating artefacts which act as prompts and aids to recollection for the GPRs. They offer the opportunity of exploring feelings that are exhibited by viewing and sharing actual activity. The mediating artefacts used in this study involved case notes, videos of consultations or videos of tutorials, letters, portfolios and diary entries to access their experience. Mediating artefacts offer the possibility through observing actual clinical cases or practice to understand the experience in context and to develop a mutual understanding over practical problems as opposed to theoretical ones. The researcher can therefore explore actions and feelings through interpreting actual as opposed to simulated or theoretical events.

Principles Underpinning the Interviews

To facilitate a sustained relationship and to engage as fully as possible with the GPRs, the interviews were based on the following principles:

- There would be a GPR focus to the interview
- The GPRs could manage the interview process in terms of timing, duration, recording etc
- The GPRs would be allowed to raise any issues they wished to
- The interviews would be on the GPRs' terms and held at a place and time convenient to them.
- GPRs were encouraged to give actual examples of experiences and to discuss critical events.
- The content of the interviews would be treated as absolutely confidential

Interview Questions

The Research process required that the interviews be concerned with three types of question:

- 'What' questions - which are interested in determining the experience, i.e. what happened?
- 'How' questions which are about how GPRs choose, interpret and construct meaning from the experience described
- 'Why' questions: why do GPRs act, feel and value experiences as they do?

A letter was sent inviting GPRs to participate and if they agreed, the researcher then contacted them by telephone. The initial interview involved informing the GPR of the outline of the study and discussing any concerns or questions that they had in relation

to the process. The rules of engagement were approved and both parties agreed the content of the interviews would remain confidential and used only within the context of the study and with the GPRs' permission. The GPRs were informed that at any stage during the study they could withdraw or request that any data derived from their interviews not be used.

The interviews were open-ended and dealt with the GPRs' experiences and issues. The first interview was designed to gather contextual and biographical details. The GPR was then encouraged to develop any issues, patient encounters or experiences that were important at that time for them. In the second and third interviews, individual experiences were reviewed, explored and jointly interpreted and developing themes from other GPR interviews were introduced.

Though the interview was situated and individualised, it was the intention to pool interview data and identify thematic issues. This would make it possible to assemble consistent, recurrent and possible meaningful themes which offered a plausible interpretation of the GPRs collective experience. This process of collating experiences would allow tentative, though arguably plausible, conclusions to be drawn from collated individual experience that could be fed back into the interview process to critically reflect with the GPRs about the developing interpretation of the experiences. The interview process was revised following the initial pilots and from feedback from the participants, and this led to the final interview process being unstructured and open-ended.

The Focus Groups

The focus groups formed part of both the data collection and interpretative framework of the research process. They offered the researcher the opportunity to gain insight into the social interaction of the participants and how they construct meaning as a group, as well as allowing for the possibility of exploring the justification for actions or beliefs and observing peer response to these (Silverman 2001). Robson (2000) identifies the positive and negative potential of focus groups and the value that can be placed on the data derived from them. In this study I utilised focus groups for the following reasons:

- They offered the possibility of allowing a group of GPRs/trainers to focus on important or relevant topics or themes that were emerging from the research
- Comments and statements from participants may be different in a peer group setting than in an individual interview
- Importantly, they offered the opportunity to critically reflect with the participants the emergent themes and my interpretation
- They offered me the opportunity to deepen my understanding of some of the themes and issues developed during the individual interviews
- Groups can empower individuals and thereby generate a critical review that may not occur in a one-to-one setting

Principles Underpinning the Focus Groups

As part of the ethical governance of the study generic principles were agreed with the focus group participants. The principles formed the basis of group rules, which governed the conduct of the focus groups. The group rules were adapted from the existing group rules used by the GPR day release and trainers groups. These were

used because the participants were familiar with them and because they had been established and all GPRs and trainers had signed up to them and were familiar with them. The group rules were:

- All information provided to the group and used within the group is confidential
- There must be respect for the individual and, irrespective of their views, each member has a right and will be provided an opportunity to speak
- Each member must remain quiet while someone is speaking
- If disagreements occur they are to be confined to the issues and should not become personalised
- Any participant has the right to withdraw at any time
- The focus groups are being conducted for the purpose of research and any information or data derived from them or any interpretation or meaning attached to the data should be made available to individual members of the group if they so wish.
- The researcher can take notes during the group but the groups cannot be taped without the express consent of all the members.
- The researcher will provide a brief summary of his interpretation to any group members who wishes to see it
- No information or events discussed should be identifiable or traceable to individuals, patients, staff, other persons or practices

The GPRs and trainers were familiar with working in groups and were familiar with the group rules. An important component of the rules is the stated respect for the individual, which is designed to ensure that when disagreements occur, the focus is on

the idea, statement or action and not directed to or at the individual. Within a group, any personalised attacks or comments are considered unacceptable.

GPR Focus Groups

The purpose of the GPR focus groups was twofold. Firstly, the focus groups were used to feed back to the GPRs the emerging themes from the interviews as well as to check that these themes were consistent with their own experience and that the analytical process was producing interpretations that had face validity. Secondly, they were used to obtain information from the GPRs as a group about their experiences in the GPR year.

Each focus group was led by the researcher and was conducted according to the group rules. The groups were timetabled for 90 minutes, and were concerned more with general themes related to the policies, planning and processes in the year than individual learning experiences or patient-focused issues. Each focus group was given time at the end of the session to feed back the main issues, and there was a *constructive dialogue to make sure that the interpretation I had made of the data was consistent with their views.*

The GPR focus groups held in August 2003 were different in that the GPRs were new to general practice and they were unfamiliar with group-work. Moreover, they had spent little time together as a large group and were therefore unfamiliar with each other. To facilitate their group-work, an educational approach was adopted. They agreed to the group rules and were then put into pairs and asked to discuss in pairs their expectations, concerns and any anxieties they had about the GPR year. Each pair

then shared their experiences with another pair and then the quartets fed back to each other. The general issues identified from the pairs and quartets then formed the basis of the group discussion. During both the pair and quartet discussions the researcher circulated, listening to the discussions and noting any recurring themes, which were then played into the group discussion. This process encouraged the GPRs to grow into the group activity and format, and allowed them to gain personal confidence as the session progressed.

The GP Trainer Focus Groups

The GPR interviews and focus groups identified themes relating to GP trainers, their role in the GPR year, and institutional and professional issues. A series of six focus groups of GP trainers were run over May/June 2003. The focus groups had two purposes: firstly, to obtain from the GP trainers their views, experiences and feelings about the GPR year; and secondly, to feed back to the GP trainers the emerging themes from the GPR interviews and focus groups and use the group to critically evaluate the themes in the light of their own experience.

The focus groups were run by an experienced educator who had been briefed beforehand about the issues and themes to be explored. I participated as a silent observer, thereby allowing ongoing field notes to be made. In addition, the facilitator took notes and the themes and issues were recorded on a flip chart. This process freed the researcher to observe and listen to the views expressed. The focus groups generated a rich source of data and proved beneficial as a checking board of my developing interpretation of the data.

Critical Dialogue with Experienced Educators

Part of the research process ensured that through the focus groups and the interviews there existed the opportunity to share my emerging interpretation of the data with the participants. As more data became available I sought to share my interpretation with other experienced medical educators and to engage them in a process of critical reflection and dialogue about the data I had derived from the interviews and focus groups. This was important because some of the data and my interpretation of it were at variance with the developing policy direction in postgraduate medical education and I felt a need to share the data with others to check my interpretation.

Seven meetings were held with experienced educators (Course Organisers, Experienced Trainers, Associate Advisers and Associate Directors) during late 2003 and early 2004. The sessions lasted about one hour and took place face-to-face. I began by outlining the study and the emerging themes and then developed some of the thematic and detailed data before eliciting their interpretation. All the data was anonymous and the participants agreed to treat the discussion as strictly confidential.

GPR Selection

For both cohorts a stratified sample of GPRs was chosen. To reduce selection bias and to ensure that the GPR cohorts were representative, the GP Unit Secretaries were asked by the researcher to identify from the GPR data based 24 GPRs for each cohort and to ensure that each sample was similar in age, gender, and years since registration and whether or not they were on a VTS. The reason for the inclusion of the selection criteria was to ensure that a broad range of GPR experiences were accessed. Both cohorts had similar age and sex profile to each other and the national GPR profile. The mean age of GPRs in both cohorts was 26 with an age range 24 -32.

Research Schedule and Structure: Pilot and revision

“Between the idea and reality falls the shadow” T.S. Eliot.

From the literature review on the GPR year I identified that most interview and focus group studies that had been conducted were single point studies and there had been few longitudinal studies. I hypothesised that at different points in the GPR year, GPRs may have different experiences and would manage and interpret those experiences in different ways. I felt it important to develop a longitudinal approach which would ensure that there was the opportunity to form rapport with the GPRs over the course of the year.

The research schedule was derived from the following:

- (1) A review of the literature on GPR interviews which highlighted areas which had previously been documented as important
- (2) A pilot interview study with six senior GP trainers to identify areas that they felt were relevant or from their experience with GPRs, considered to be important
- (3) A focus group of seven GPRs who were at least six months out of the GPR year. They were all doing locum work at the time of the group work. They were asked to reflect on the GPR year and to list the main areas and themes that they felt should be explored over the course of the study.

In August 2002, six pilot interviews were undertaken with GPRs. The initial interviews were highly structured and the questions were based around the themes

identified from the Literature Review. During these pilots, feedback was gathered on the interview process from the GPRs. During the pilot interviews I felt very uncomfortable. The feedback from the GPRs was that the interviews felt unnatural, that they were really more of a 'question and answer' session, that they were very controlled, that there was little room for spontaneity or flow in the interview, and that they did not feel that a structured approach encouraged them to discuss issues of concern. The interviews were therefore modified to take on board the GPRs' concerns and a less structured interview format comprising approximately 15 question areas was devised.

In September 2002 the new interview structure was applied with eight interviews. Feedback from the interviewees identified several areas that were a cause for concern. There were problems with the GPRs consenting to the interviews being taped, there were problems with the flow and spontaneity of the interview, there was reluctance on the part of the GPRs to share clinical information, and throughout the interview process the GPRs appeared uncomfortable. When asked if the interviews could be taped, the GPRs were unhappy about this. Statements were made by GPRs in jest, such as "What you are about to say will be taken down in evidence and held against you" followed by a laugh or "I had better watch what I say now", and there were clear minimal cues provided by the GPRs of a change in their body positioning and language when the tape was put on. At the end of the eight interviews, three of the GPRs telephoned to say that they did not want to continue with the study. The reason they gave was that they didn't have time but it was clear that there were underlying concerns about the process.

All eight GPRs agreed to attend a meeting in September 2002 at which the study was discussed. There were serious issues raised around the question of consent, my situated authority, and the boundaries between my roles as Director and as researcher. The GPRs were sceptical of the reassurances provided about the use of the information collected from the interviews and focus groups. The issues raised identified that my position and authority were a major block to the research process. The issue of trust was central to this and the GPRs said they would not participate meaningfully unless this was addressed. There were also concerns over patient confidentiality and the use to which information about difficult cases and significant events may be put. They raised concerns about discussing clinical errors, mistakes or knowledge of failures, and how such information was to be handled. The outcome was a review of the research process and my motivation, as well as an outline agreement as to how the interviews and focus groups would proceed in the future and how other GPRs should be informed of the research process and the use of the information obtained. I acknowledged their concerns and the outcome of the meeting was an agreement of the following:

- That the content of the interviews and focus groups would remain absolutely confidential, and that no information would be relayed to third parties without the prior agreement of the GPR
- That the interviews would not necessarily be taped but the researcher could maintain field notes. In addition, a summary of the main issues of the interview would be given to the GPR at the end of the interview and they could feedback into these
- If tapes or transcripts were made, these would be returned to the GPR after use and only kept if the GPR gave consent

- If there were patient or professional issues raised then I would, if required, assist them in managing either the clinical or professional issues
- That they could withdraw at any stage and withdraw any information that they had given during the research process if they were uncomfortable with it
- If I were to discuss aspects of the results and outcome, they should not be individually identified nor the practice they worked in nor anyone associated with it
- That the purpose of the research was for an Ed.D thesis and that it was necessary and appropriate that information would be discussed with my educational supervisor
- I would not discuss any information with their GP trainer nor anyone connected with medical training in the Deanery without their explicit consent
- They recognised that if under my duties as a doctor (GMC) issues arose that caused me concern, I could address these with the GPR during the interview process.
- That there should be periodic group meetings where I would meet with any interested GPRs and review with them the progress of the research to date.
- That the existing 'group rules' that applied to the day release groups should apply to any focus groups.

This agreement formed the ethical framework for the interviews and focus groups. It was agreed that the process would be monitored and if there were any concerns resulting from it, they would feed back to me. I gave an explicit promise to them that I would adhere to the framework throughout the research process.

Interview Framework

As a result of the meeting in September 2002, a revised interview schedule and interview process was drawn up. The interview method become largely unstructured and open-ended, participant-focused and led, with the researcher following in depth the areas developed during the interview. Recurring themes that were identified from previous interviews and from the analytical framework were fed into the interviews and focus groups by the researcher if GPRs did not actively volunteer information in these areas. The interview began with open-ended questions and followed the lead from the GPRs. Consequently, interviews were of variable lengths, the minimum being 65 minutes and the maximum being 145 minutes with a mean interview time of approximately 105 minutes. The framework was devised according to the criteria of Kvale (1996), these being:

- Use short questions and allow for long answers
- Derive spontaneous, specific and relevant answers
- Follow up answers and clarify meaning
- Interpret as the interview proceeds
- Attempt to verify the researcher's interpretation with the interviewee
- Encourage the interview as a story in itself.

GPR Interviews

Twenty-Four GPRs were invited to participate in each cohort. The first cohort interviews were conducted between September 2002 and July 2003, and the second between September 2003 and August 2004. Of the 24 invited to participate in cohort one, 24 completed two interviews and 21 completed three interviews. In cohort two, 24 completed two interviews and 20 completed three. The failure to complete the

interviews in cohort one was due to two GPRs re-locating and one being on maternity leave, while in cohort two, one GPR relocated, one was in ill-health and two were on maternity leave.

The interview schedule was designed to interview GPRs at 2-3 months, 7-8 months and 9-11 months into their year, and was largely determined by GPR and researcher availability. All interviews were conducted at the GPR's place of work. Where possible, interviews were tape-recorded or, if the GPR did not consent, notes were taken by the researcher. During a number of interviews, the GPRs requested that the taping be stopped or that once the tape was transcribed, the transcription be returned to them after analyses for disposal.

GPR Focus Groups

Six GPR focus groups were held between September 2002 and May 2004. The focus groups were run by a senior educationalist with the researcher in attendance, and lasted approximately 75 minutes. In each focus group, there were approximately nine GPRs. Where possible, GPRs were chosen who were not in the interview study group. The focus groups were conducted in September 2002, January 2003, June 2003, September 2003, January 2004 and May 2004.

GP Trainer Focus Groups

Six GP Trainer focus groups were conducted during the months of April, May and June 2003. The focus groups were run by a senior educationalist with the researcher observing. The focus groups lasted approximately one hour and the numbers in each focus group varied between 9 and 13.

Critical Dialogue with Experienced Medical Educators

Seven discussions were held with medical educators between late 2003 and June 2004. The discussions involved reviewing field notes and the emergent themes. The discussions lasted approximately one hour.

Analytical Framework

The method initially involved taping and transcribing the interviews. Following the meeting in September 2002, I could not insist on all interviews being taped and transcribed and the decision on how data from the interview was to be recorded rested with the GPR. The preferred option was for the interviews to be taped and independently transcribed by secretarial staff at the GP unit or commercially by Dot Kirkland associates. Where consent to tape-recording was not obtained, active field notes were kept during the interview. At the conclusion of the interview, the main themes were grouped and further information was subsequently placed within the field group categories. Field notes and tapes were held for each interview cohort and analysed on a weekly basis. The information was analysed under a thematic grid that allowed for the identification of the main themes and for evidence statements supporting these themes to be recorded under each thematic category.

The analysis really began during the interviews and process of data collection. The GPR experiences and stories were interpreted with the GPR as they were heard. They were then further reflected upon and emergent themes were identified. In the interviews, GPRs would relate detailed experiences, many of which were raw and emotionally draining and impacted on myself as researcher. It was important to ensure

those highly emotional events or particularly memorable experiences did not distort the emerging themes.

Data Analysis

The data was analysed using a framework approach (Pope *et al* 2000), modified by Denzin's five stages of the interpretative process (Denzin 1989). The main aim of this approach was to allow the researcher to identify significant and recurring themes that were both important and meaningful to the GPRs and helpful in answering the research questions. Though the frequency with which themes were identified was documented, during both the conceptualisation and final interpretative stages account was taken of themes that though infrequent appeared particularly important and meaningful to GPRs and helpful in answering the research questions. In two areas the frequency of events are documented in the thesis, these are in table 1 p118 (frequency and type of epiphany) and in table 2 p175 (changes in learning outcomes).

The process of data analysis involved the following stages;

1. **Capture** – To ensure that there was a sufficient data two cohorts of 24 GPRs were interviewed three times during their training year. Six GPR and six trainer focus groups were conducted. Where possible the interview data was taped and transcribed and if this was not acceptable to the interviewee field notes were made.
2. **Familiarisation** – This involved the researcher immersing himself in the raw data (transcripts, tapes and field notes) and through this process 'bracketing' and defining essential key data sets or themes. This was a dynamic process and involved what Denzin (1989) terms 'thick immersion'. Data was reviewed

soon after its capture and cross-checked with the interviewee and in the case of the focus group with the group leader to ensure that the researcher had captured the main themes. From this data sets were constructed and these were populated with new data as it emerged from the interviews and focus groups.

3. **Identifying a thematic framework** – From the ‘bracketing’, key concepts, themes and data sets were identified. These permitted the emergence and definition of major themes within which the data could be analysed. This led to the development of an emergent index of data linked both to the individual interviews/focus groups and to the theme. Data from each interview and focus group was analysed against the emergent themes and any relevant data were added to the set. This generated a number of major themes and sub sets within these, e.g. a major theme was GPRs individual experiences derived from patient/clinical contact, this theme had a number of sub sets: epiphanies, case management, uncertainty, heuristics, trainers role, reflection on activity, clinical management, GPR/patient interaction, sources of information and relationship with personnel in the practice.
4. **Linking to the published literature** – Major themes (such as the impact of assessment, individual GP experiences/patient contact, role of the trainer, induction into practice) were cross-referenced to the literature to check for areas of agreement and new or additional themes or interpretations. Certain themes which occurred in the literature and in the interviews for example, GPRs experience of hospital training were not developed in the thesis as they were not directly relevant to the research questions
5. **Indexing** – Within each major theme interview comments, transcript quotations, field notes, reflections from GPRs and researcher were added to

populate the data set. Prior to writing the thesis the data sets were re analysed to draw out representative illustrative material and quotations to support the interpretation and analysis.

6. **Charting** – The major themes derived from the interpretation of the data index were identified by the researcher. A log was maintained of the frequency with which events (e.g. epiphanies) were reported.
7. **Conceptualisation** – The major themes and data sets allowed the researcher to actively reflect on the frequency and importance of reported and documented events and to derive an interpretative framework for presenting the results. The chosen framework was that of the educational concept of the curriculum which is developed on pages 90 - 92. This framework was tested during the critical dialogues with the general practitioner educators. This process assisted the researcher in developing his interpretations of the data.

CHAPTER FOUR

RESULTS

Introduction

We learn simply by the exposure of living. Much that passes for education is not education at all but ritual. The fact is that we are being educated when we know it least.

David P Gardiner

In this section I have used the educational concept of the curriculum as the interpretative framework for the analysis and presentation of the results. The term curriculum is a broad one and is used in differing ways in the literature, therefore it is necessary to provide a brief review of the concept as it is applied in this study.

According to Smith (2005) the concept of the curriculum can be thought of in one of four ways:

- As a body of knowledge to be transmitted
- As a product designed to achieve specified ends
- As a learning process
- As praxis

The present policy environment in health care, with the emphasis on productive and technical attributes, values the curriculum as a product in which education and training are seen as a technical exercise linked to defined competencies in students. As Bobbit (quoted in Smith) states, “Human life however varied consists of the

performance of specific activities. Education that prepares for these specific activities....that is the purpose of the curriculum”

Unlike the product model, the process model of the curriculum views it as the outcome of the interaction between the teacher, the student and knowledge. It is concerned with what happens in the learning situation, and how the participants prepare for and reflect on it. Stenhouse (1975) stated, 'A curriculum is an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice'(p4). He has compared this concept of the curriculum to a recipe in cooking where the curriculum is modified through experimentation to meet individual needs. Within this model the process of learning is the main concern (Grundy 1987).

The praxis model is a development of this which places values and purpose at the centre of the curriculum and is concerned with how teachers and learners solve real life problems. In this model the curriculum is not something simply to be implemented but is actively constructed within a value set and, for Cornbleth (1990), within a particular context and milieu which develops, shapes and influences it.

In this study the curriculum is viewed as a process and it is this concept that underlies the interpretive framework within which, from the learners' perspective, it is conceptualised as both an **external** and **internal** process. To give structure to the interpretation and in presenting the results, a modification of Rodgers (1996) four curriculum elements are used. These are:

1. Structure which includes elements of praxis: the philosophical framework (attitudes which underlie teaching) and the context (setting, atmosphere);
2. Content (material to be covered and the sequence);
3. Process or learning events (planned and unplanned activities);
4. Outcomes - both individual and institutional.

Biographical Data of the GPRs

An individual's biography is an important component of the interpretative methodology, however biographical details of individual GPRs are not provided in this section. Biographical details did form part of the data collection at the first interview. These included details of each GPRs personal history, family history, social and occupational history, education, clinical experience, present social and work circumstances. This data was collected to contextualise the interpretative process.

However it was agreed with the GPRs that no GPR should be identified and that all the events/issues they described would remain anonymous and GPRs, patients, trainers or general practices would not be identified in the text of the thesis. The thesis is a public document and it is absolutely paramount to protect both GPR and patient confidentiality. The inclusion of biographical data in the results section could have raised the possibility that either GPRs or patients may have been identified because the events described are situated within a relatively small area of Scotland and cover a discrete time period.

Overview of the Results

The external or official curriculum is explicitly expressed in the published documents of the organisations responsible for general practice training (NES,

JCPTGP, RCGP). The official curriculum is concerned with the formal structure, processes and content of teaching in training. The official curriculum is further sub-divided into:

- The **formal curriculum**: This has two components: curricular statements that define the competencies, skills and attributes that a GPR should acquire, and the regulatory framework which governs the process and structure of training.
- The **assessment curriculum**: There are two assessment curricula: one for the JCPTGP (summative assessment) and one for membership of the RCGP. However, the majority of GPRs sit both assessments and the curricula can be considered as a single one. The assessment curriculum is explicit and criterion referenced, and sets the standards GPRs must demonstrate in communication/consultation skills, clinical audit, a test of knowledge, as well as in an oral and a trainer's report.

The **internal curriculum** is by contrast implicit. It is expressed through the experiences, stories, relationships, feelings and clinical interactions that GPRs have. It is an experiential curriculum which is non-linear but context specific, in which learning is both planned (prospective) and unplanned (retrospective/reflective). The internal curriculum is sub-divided into two experiential frameworks which are inter-dependent:

- The **individual curriculum**: This is personalised and built around and within the learning needs, experiences and personal and professional history of the GPR. It is concerned with feelings, attitudes, experiences, epiphanies, beliefs and relationships as well as context specific skills and knowledge.

- The **hidden curriculum**: This is the learning GPRs derive from the organisation, structure and relationships within general practice and training. It involves exposure to and immersion in the social world of general practice and the GPRs' individual training practice.

The internal curriculum is defined by what the individual GPR makes of the experiences he or she has, whereas the external curriculum is defined by what is expected of a GPR. The curricular framework developed in this section is relatively sophisticated, with four curricula running in parallel with varying degrees of intensity, overlap and tensions at different stages in the GPR year. Common to each is the trainer who acts as a bridge between the curriculum and a point of continuity for the GPR, and assists in the process of socialisation of the GPRs, learning through the cultivation of the practice learning environment, culture and infrastructure.

For most of the year the official curriculum is distant from the GPR and it is within the internal curriculum where the most significant and meaningful learning takes place. It is the living curriculum and the experiences GPRs have within it are challenging and ambiguous and cause the GPR to seek the guidance and advice of other experienced general practitioners/GPRs. The ambiguous nature of their epiphanies and the resulting clinical and personal uncertainty means that reflection and 'talking over or through' their experiences is the most productive learning process. Through this the process, their learning shifts from vertical transmission (expert to novice) to a horizontal transaction (learning with and from others). The GPRs develop a learning community within which they enter into a progressive critical and reflective dialogue with other colleagues that is mutually relevant and beneficial. The individual curriculum provides the experiences which transform and

drive the changes in the GPRs' learning and clinical practice, and for this reason it is given greater prominence and described in more detail than the other curricula in this section.

The Official Curriculum

The Structure of the Official Curriculum

GPRs and trainers make a distinction within the official curriculum between the 'formal' and the 'assessment' curricula. The formal curriculum comprises the published curricula documents from various sources, primarily the JCPTGP, NES, COGPED and RCGP, while the assessment curricula comprises the assessment material from the JCPTGP (summative assessment) and the RCGP (membership examination).

The Formal Curriculum

Structure and Content of the Formal Curriculum

In terms of its structure and content, the formal curriculum can be divided into two constituent parts;

1. Competency statements that relate to the knowledge, skills, and attributes a GPR should possess and the illness/diseases GPRs should experience and have knowledge of. These statements are extensive and there are many competency documents in circulation produced by both national organizations (JCPTGP/RCGP) and local Deaneries. There is no agreed single competency document, though they are all very similar in content and style. The documents produced by the JCPTGP and the RCGP are both used by GP trainers in the South East of Scotland. Examples of the statements on the

professional, ethical and legal obligations of a GPR required by the JCPTGP are provided in Box 1 and those on the management of acute illness from the RCGP in Box 2

2. The training regulations and standards that govern general practice training which are outlined in Chapter One. These effectively determine the process of training and the environment within which training takes place. For example, they require that the GPR is treated as a supernumerary doctor, that they attend a day-release program, that the GPRs' training needs must take priority, and that they should be provided with periods of protected learning time as well as 3 hours' tutorial time per week and 30 days' study leave per year.

- **4.1** Demonstrating appropriate professional values and attitudes, including caritas; trustworthiness; accountability; respect for the dignity, privacy and rights of patients; concern for their relatives; and providing equity of care
- **4.2** Adhering to contemporary ethical principles
- **4.3** Observing and keeping up to date with the laws and statutory codes affecting general practice, e.g. the Mental Health Act, Disability Discrimination Act, Human Rights Act
- **4.4** Respecting the principle of confidentiality; and, if breaching it without the patient's consent, being prepared to justify the decision
- **4.5** Demonstrating a commitment to maintaining professional integrity, standards and responsibility
- **4.6** Ensuring that whenever possible the patient has understood what treatment or investigation is proposed and what may result, and has given informed consent before it is carried out
- **4.7** Applying guidelines for the treatment of patients under 16 years of age with or without the consent of those with parental responsibility
- **4.8** Demonstrating an awareness of issues relating to clinical responsibility, e.g. with regard to drug treatment or patients attending complementary practitioners
- **4.9** Acknowledging the 'good Samaritan' principle, i.e. offering to anyone at risk treatment that could reasonably be expected
- **4.10** Making appropriate use of available sources of advice on legal and ethical issues at individual, professional, local and national levels
- **4.11** Following guidance on doctors' obligation to protect patients from a colleague's poor performance, health or conduct
- **4.12** Respecting a patient's right to a second opinion
- **4.13** Adopting safe practice and methods in the working environment relating to biological, chemical, physical or psychological hazards, which conform to health and safety legislation

Box 1 JCPTGP- Professional and Ethical Obligations of a GPR

Managing acute illness including:

- Cardiovascular problems including cardiac arrest, acute coronary syndrome, acute myocardial infarct, acute left ventricular failure, dissecting aneurysms, severe hypertension and life-threatening arrhythmias
- Respiratory problems including acute severe asthma, pulmonary embolus, pneumothorax, pneumonia, epiglottitis, bronchiolitis and respiratory failure
- Central nervous system problems including cerebrovascular problems such as strokes, seizures including febrile convulsions, infections such as meningitis or encephalitis, and signs of other significant intracranial pathology such as tumours
- Gastrointestinal problems including gastroenteritis especially in childhood, haemorrhage, acute abdominal pain and liver failure
- Infectious diseases not covered elsewhere e.g. malaria
- Shocked patients including septicaemia, cardiogenic and anaphylactic shock, and haemorrhage
- Unconscious patients including those with diabetic problems such as hypoglycaemia, hyperglycaemic ketoacidosis and hyperosmolar non-ketotic coma
- Psychiatric problems including acute psychoses, acute organic reactions, the suicidal patient, psychological crises and the application of the Mental Health Act
- Urological problems including torsion of the testis, priapism, paraphimosis, gross haematuria, ureteric colic and acute retention of urine
- Women's problems including severe vaginal bleeding and/or pelvic pain e.g. ectopic pregnancy and emergencies associated with pregnancy e.g. placental abruption or eclampsia
- Terminally ill patients, including symptomatic and palliative care, and general issues surrounding management including the patient's and family's wishes, in order to facilitate a good death
- Sudden unexpected death including sudden infant death syndrome, confirmation of death, dealing with relatives, certification and referral to the Coroner / Procurator Fiscal

Illness Competencies

The Process of the Formal Curriculum

The process of the formal curriculum is described in relation to the main areas identified by the GPRs and trainers:

1. The Effect on GPR Learning

GPRs were aware of some of the competency documents and regulations, particularly those of the JCPTGP, but none were familiar with the content in any detail. They had ‘looked over’ rather than read them. They viewed the competency statements as being irrelevant to their day to day clinical work and considered them as aspirations (“*what in an ideal world we should know*” as one put it) rather than useful and practical guides for their learning. Some GPRs initially expressed concern about the breadth of the curricular statements as the following interview quotes illustrate:

“It was all and everything. It was disease specific; it was just a long list of topics with no useful detail.”

“It was far too broad and not specific enough. I looked over it once but neither my trainer nor I paid any attention to it.”

“My trainer gave it to me but in giving it to me, dismissed it as a wish list.”

“It read like an official document and I found it hard to relate to. It helped a bit initially but I never really read it fully.”

“I looked over it in the first couple of days. I couldn’t find it now if you asked me to show you it.”

However the process of the formal curriculum was identified by GPRs in the interviews as having the following beneficial effects on their learning:

- The competency statements helped them **define the clinical ‘boundaries’** of general practice and what they could expect to have to deal with in clinical practice, and thus reduced some of their initial clinical and personal uncertainty about general practice, as the following interview quotes illustrate:

“They helped me plan with my GP trainer what I would do and how I would work initially.”

“Having the lists (of competencies) was useful early on. We discussed it at half day release. It was reassuring to know that we all were doing some things the same.”

“I thought it more as here is what it is about, an introduction rather than a syllabus if you like. More like the programme notes when you go to the theatre.”

“Starting was hard, I didn’t know what to expect and the Joint Committee booklet helped a bit - it laid things out but it was really a dry read - it helped settle me down knowing what I might expect.”

- The competency statements helped them initially in **defining and legitimising their learning needs**. By setting out the range of competencies, skills and clinical conditions for GPRs, they felt they had permission to identify and discuss their learning needs with their trainer. Such an explicit curriculum was new to most GPRs and they had not experienced anything similar during their hospital posts. As two GPRs stated:

“I read over the curriculum lists and realised that there were some areas, psychiatry being one, that I had no experience in. I talked this over with my trainer and we worked on it in my first tutorials and he covered the basics with me. I found that reassuring.”

“I had not done A and E or acute medicine and the list (Box 2) of acute conditions worried me. My trainer was great - she gave me a couple of books to read and talked me through the practice protocols on fits, acute MI, Diabetic come...”

- The official curriculum ensured they had a **proper and appropriate induction into general practice** and their individual training practice. All the GPRs described the value of the induction process in helping them gain an understanding of the day to day workings of the practice and the roles and responsibilities of the staff. The induction period (on average about two

weeks) was particularly valued by those GPRs who had moved to the area from elsewhere. Their induction into general practice contrasted greatly with their experience in hospital. The following interview quotes illustrate the value of the induction:

“Compared to my hospital posts, it was so different starting in General Practice. I had about a 10-day induction. In hospital you know you are lucky if it is half a day and it usually is really impersonal. I met with everyone and went to the local chemists, went up to the local hospital to get a feel for it because I was new to the area and I was encouraged really to meet anyone I wanted to. I sat in with all the partners and got to know them and they asked about me. I got my picture taken and it was put on the wall at reception. I was given a bag and talked through the type of emergency drugs and equipment I would need. That first week was really important in settling me down because I had moved here to work, I really didn’t know the area and it was really great just getting an understanding of the geography and where places and people were and getting a feel for it and I was encouraged to do that. I was taken out by each of the partners and district nurses around the area so that I got a feel for what the practice area was like and where the different bits of it were, the good and not so good. It was really well set up and organised.”

“Even before I had started, I had met twice with my trainer and had spent a full day in the practice and before I started a month or so before, she wrote a letter with a contract and an educational agreement and a letter of welcome. She asked me if there were any questions I had and gave me her home phone number so that I could contact her prior to coming to the practice. On my first day, it was so different from my experience to hospital. I was introduced to everyone and spent about three days being introduced to people, meeting people in the surgery and outside it. There was no pressure on me at all during this time.”

“The induction was the one thing I remember. It is interesting looking back. I was really quite worried about General Practice. We had been away working in New Zealand before coming to take up the GP registrar year and had been away for 18 months and sort of lost contact with the NHS and I remember the first day my trainer saying to me that I needed to take my time and settle in and saying that really they can manage without me and that I needed to understand that that they weren’t dependent on me. In some ways that was a bit shocking but in other ways reassuring! It meant that I could spend the first week really finding out about the practice, you know the processes in place and the hospital. I got the distinct impression it was more than that. I was told that I was there to learn and prepared

for General Practice and I felt coming back to being abroad, I was really introduced very gently and it was really good because it built up my confidence. I was ok clinically; it was only just getting an understanding of how things worked and how things were.”

2. The Effect on the GP Trainers’ Approach to Training

GP trainers regarded the formal curriculum as important because it explicitly set out the process of training, e.g. the expectations and responsibilities of a GP trainer and their practice. It functioned as their contract with the Deanery. They believed it was critical in determining the educational and training environment in their practice, their process of working as a trainer (including their support networks - the trainers’ groups) and it provided the theoretical underpinning for the way they organised and delivered training. Furthermore, they believed it empowered them in their practice and gave them the authority to maintain training standards and to ensure the learning climate was appropriate. As one trainer said:

“It (the JCPTGP document) is the web, almost invisible but like a web that holds it together and it is where I fall back to and helps keep the practice on its toes. It has evolved, I can remember the early documents form the Joint Committee and the College and they have matured and now are quite clear what is expected from us and it has been helpful in maintaining our standards and the high quality of training practices.”

The most important process effect of the formal curriculum identified by the GP trainers and reinforced by the GPR interviews was the positive effects of the formal curriculum on the learning environment. This was in four main areas:

- **Physical Environment.** The formal curriculum regulated the standards that a training practice had to meet, for example that GPRs were provided with either their own consulting room or a dedicated space within the surgery, with a computer, direct access to the internet and to online learning resources, and access to a library area

- **Clinical Environment.** The formal curriculum stipulated the clinical and administrative standards a training practice has to meet. These were designed to minimise clinical risk for the GPR and included, for example, the provision of practice-based protocols and the standards for the quality of clinical records
- **Structure and Organisation.** The learning environment was further enhanced by the organisational structures which were required to help GPRs and GP trainers including, for example, the Deanery GP Unit, the Associate Advisers and the GPR employment contract which detailed their access to study leave, tutorial times, courses and group work
- **Values.** The formal curriculum through the attributes statements and the process of practice accreditation (undertaken by teams of trained GP trainers and lay-people visiting practices) ensured the application of a set of values associated with training including: confidentiality, fairness, openness, and respect for the GPRs as learners and as people. In addition, GPRs identified ‘macro-values’ in the overall organisation and delivery of the training programme that reflected the values they were taught and learned in managing patients in general practice.

Outcomes of the Formal Curriculum

The formal curriculum provided the regulatory framework and structure for GPR training. Crucially, it determined the educational environment and learning climate of the GPR year and initially, through induction and the requirement for clinical protocols, it was helpful in reducing the clinical and personal uncertainty GPRs experienced. It was valued more by the GP trainers than GPRs, but for the latter, though the detail of it was mainly unknown to them, it functioned as a web that held everything together and fostered the development of an educational environment that supported their individual curriculum.

The Assessment Curriculum

The Structure of the Assessment Curriculum

The assessment curriculum is effectively two curricula which significantly overlap, though GPRs and GP trainers refer to them singly as the 'assessment curriculum'. It comprises the clinical competencies, knowledge and performance criteria required of GPRs to pass summative assessment (JCPTGP), which is mandatory, and the MRCGP examination, which is voluntary but which all the GPRs in the study sat. These are published by the JCPTGP and the RCGP (and available from their websites) and each GPR receives an induction pack with the assessment methods, standards and timetable clearly explained. The assessments are, with the exception of the trainers report, externally assessed by trained assessors. As discussed in Chapter three, there is published evidence supporting the validity and reliability of the assessment methods.

The structure of the assessment curriculum is derived from the assessment methods.

In summary each GPR is required to:

- Submit a satisfactory video of eight of their consultations by month nine for both the JCPTGP and the RCGP
- Submit a satisfactory clinical audit project by month nine for the JCPTGP
- Pass a knowledge test which can be taken three times per year
- Pass a critical reading paper which assesses the GPRs' knowledge of the evidence base of general practice and their ability to critically review published literature by month nine for the RCGP
- Pass a case-based oral examination by month 10 for the RCGP

- Satisfactorily completed a GP trainer's report, which is completed by the GP trainer in consultation with practice colleagues by month 11 for the JCPTGP.

The curriculum is concentrated in the latter quarter of the GPR year with five of the six modules being taken between months nine and eleven

Content of the Assessment Curriculum

The GPRs identified that the assessment curriculum had three main content areas:

- **Consultation skills:** For the majority of GPRs this was the most important content area. Their learning involved reading about the theory and practice of doctor-patient communication, formative tutorials with their trainer on their video consultations, or case discussions about patients with whom they were having difficulty, discussing video consultations with their peer group, and the collation of a video tape of consultations for external assessment. Few GPRs had had any formal teaching or training in consultation skills and they found both the process of videoing their consultations and the initial formative tutorials based on them stressful, but commented that this was one of the most educationally valuable experiences that they had during their training. They stated that it gave them insight into their behaviour as a doctor and into the psychodynamics of doctor-patient interactions, which helped them considerably in managing some of the patient issues that arose in the individual curriculum. They made a distinction between the formative process and the collation of a video tape for assessment, which they found a tedious and somewhat artificial exercise. They stated, however, that the assessment process drove their learning in this area and few of the GPRs would have

voluntarily videoed their consultations. The following quotes from the interviews illustrate the importance of the video:

“On reflection, the video was the single most important thing I have done since leaving medical school, maybe even since I went to it. It taught me so much about how I communicate or didn’t and I learnt so much not only about myself but about patients from hearing what my trainer would say during the feedback sessions we had. It was hard looking at yourself on video and listening to yourself and once I could concentrate on the feedback, it was really powerful because there is no arguing with it. You know it is what I did and what I said. What have I learnt from it? I listen more, I take my time, I read the notes before a patient comes in. I make an effort to ensure that they understand what we have decided. That is important. I don’t think I would have got there without the video.”

“The video had a big impact on me. It taught me to structure how I ran a consultation and to listen and not to get phased by what people say or expect. It was seeing myself. I had never done that before. It was about me and how I presented myself and how I looked. It is really powerful having a mirror held up and having other people look at you and critically look at you and how you are performing.”

- **Clinical Audit:** This involved the GPR completing a full-cycle audit of a disease or clinical activity or process in the practice. Only a few of the GPRs had participated in audit during their previous hospital posts. They found the process of undertaking an audit project valuable for the following reasons: they learned about one particular clinical area in depth; to obtain data for their project they had to immerse themselves in the practice data and information systems and through this develop an understanding of how information was managed in general practice; the project involved team-working with both clinical and managerial staff and it provided them with a methodology for managing change in a general practice.
- **Critically appraising the medical literature:** GPRs commented that the acquisition of skills in critically appraising the published medical literature in

general practice, and gaining an understanding of the evidence base in general practice, was important. It gave them the confidence to ask 'why' questions and to interpret and incorporate emergent evidence into their own clinical practice. The GPRS gave a number of examples where their clinical management had changed as a result of critically appraising the evidence in the literature while studying for the RCGP examination. These included the management of urinary tract infections, upper respiratory tract infections, depression, patients' post myocardial infarction, and those on hormone replacement therapy. Equally importantly, they began to critically review the organisational activities of general practice and to critically examine the evidence base for emerging clinical policies in general practice, for example, in child health surveillance, cervical smears, mammography, cholesterol screening, colo-rectal cancer screening and prostate cancer screening.

The increase in their skills and personal confidence that they reported as a result of understanding the evidence base of general practice as well as completing a clinical audit gave them the confidence to enter into clinical dialogue with their peers and other doctors within and outside general practice. Through this process, a number of GPRs began to redefine their role as a general practitioner from being a recipient of knowledge from 'experts' to a professional who critically appraises the relevance and value of knowledge and applies it in their clinical setting. This resulted in a change in their approach to professional practice; they became more questioning and thoughtful about both health policy and medical practice, and became confident in expressing their professional opinions. Several GPRs

commented that they found this not only liberating but also inspirational and empowering. This is summarised in the following comment from one GPR:

“It has been a change in the way I think and approach my work. I saw GPs as like ‘failed consultants’ before when I was in hospital and thought initially that GP would be about minor illness and uncomplicated things. I was wrong. It is much more complex and demanding and there is an evidence base to what we do and it is different from hospital - not less important but different - and I have changed the way I feel about being a GP. I feel more confident and willing to challenge what is going on in the NHS.”

The Process of the Assessment Curriculum and its Effect on GPR Learning

The assessment process was concentrated in the final quarter of the GPR year. However, it was evident that the attitude of GPRs toward the assessment curriculum changed over the course of the year. In the early interviews they rarely discussed the assessment curriculum. In the middle part of their year they commented that their learning was increasingly devoted to meeting the needs of the assessment curriculum. Finally, between March and early May (eight to ten months), they reported increasing stress brought on by their need to meet the assessment timetable and the increasing workload pressures and expectations from their trainer. This tension led to many GPRs feeling disillusioned about the assessment process and disappointed that they could not give adequate time to either their clinical work or the assessments. The following interview quotes illustrate this:

(April) “I feel under pressure. I am working you know from eight in the morning till six at night and on call one night per week every third Saturday and I am busy during the day and I find it hard to study when I get home. The video is the hardest. I have something like 56 consultations and I have got three weeks to get it down to eight I am happy with. The whole thing is a nightmare.”

(Late March) “I am finding it tough, particularly the video. It is a busy time in the practice and I now have my own case load and it is demanding. I have two patients with terminal care who are

dying at home and on top of that, I am still doing an audit write-up, editing the video and studying for the MRCGP. It is really hard at the moment.”

(Late March) “I am almost finished the video. I have to get a reasonable one with a child in it and the other day I saw a kid with asthma and a cough. I didn’t have the video on so I asked the mum to bring him back and primed her to be on video for assessment. They came in yesterday and it was great. It was all above board, but I had to go over it again just for the camera. It is a real struggle putting the whole thing together. The pressure at the moment is quite intense and I am finding it hard. It is partly the workload, the hours and partly the video and audit and getting them right. I hardly have time for anything else. It is taking over my life at the moment. I know it is important but I wake up thinking about it and find myself listening to patients and thinking I wish I was videoing this, why didn’t she come yesterday when the video surgery was on.”

Despite this tension, GPRs reported in the final interviews (May to July) that the assessment curriculum had an overall positive effect on their learning, which included:

- Encouraging them to take control of the content and process of their tutorials with their trainers and move away from a topic-based approach (diseases) to formatively reviewing their video consultations and discussing patients with whom they were having difficulty. They realised that tutorial time was valuable and they had to manage it to obtain what they wanted from it.
- A reported shift in their reading from textbooks to original articles and using original source material to assist in clinical problem solving.
- Becoming more self-directed in the identification of their learning needs and learning to address these through either the published literature or dialogue with others.
- Forming self-directed study groups with other GPRs to study for the RCGP examination. The groups were made up of about six to eight GPRs and met at

least weekly in the evening, functioning as extended learning sets which provided personal and professional support and which lasted beyond the examination.

Trainers' Views of the Assessment Curriculum and their Role

The trainers identified that they had two roles in the assessment curriculum:

1. To support and guide GPRs and to ensure they had no material barriers to prevent them completing the consultation video or the audit project
2. To ensure that the GPR met the performance criteria and standards laid down in the trainer's report in order that they could sign 'them off'.

To complete the trainer's report, the trainers were clear that they had to be certain that GPRs were 'fit for purpose' and were capable of 'doing the job'. They assessed this throughout the year but felt that by eight months a GPR should be 'up to speed', thus most increased the volume of the GPRs' work at this time to test their capability. The trainers placed emphasis on GPRs being able to manage the workload and work rate of a GP, being reliable, having good time management skills and good interpersonal relationships, being capable of team working (by which they meant that the GPR could cope under pressure), being able to get on with the work and able to help out at the same level and intensity as a partner.

The intensity with which trainers applied this part of the assessment curriculum depended upon their feelings about the capability of their GPR. If they had concerns about a GPR, they tended to work them quite hard during this period to ensure that they were capable of being signed off in the trainer's report as fit for independent

practice, whereas those they had more confidence in, they tended to be less intense with.

The trainers acknowledged that there was a conflict between what they expected from GPRs from about eight months into the year and the other pressures the GPR was under, but they saw this as 'being part of life in general practice' and that GPRs had to learn to cope. They felt it was the GPRs' responsibility to prioritise their time and to use it to their best advantage. They saw this as part of the GPRs' 'induction into the real life of general practice'. In addition, they felt strongly that if a GPR was capable of performing to the standards that they set, then they would have no difficulty passing the assessments. A number of trainers felt that it was their job to ensure that GPRs could cope in the real world and that the present assessment curriculum did not guarantee this. They gave examples of GPRs who had performed well in the external assessments but whom they would never employ as partners because they could not meet the demands placed upon them in practice. The trainers' view of the educational value of the assessments contrasted with the GPRs': whereas GPRs felt the assessment process had definite educational value, the trainers remained highly sceptical, even when the GPR interview statements were fed back to them.

Outcomes of the Assessment Curriculum

The assessment curriculum was identified retrospectively by GPRs as having had a significantly positive effect on their learning and professional development. Their engagement with the assessment curriculum did change over the course of the year. They all found the period around nine to ten months into their year particularly difficult because of the conflict between their need to study and complete the video

and audit, the intensification of their individual curriculum (because of both their work load and case complexity), and the needs of their trainer to ensure that they were capable and could meet the standards of the trainer's report. This tension was the most consistent negative comment about the assessment process and it was related to the timing of the assessment rather than the content.

The GPRs reported that on completion they received their JCPTGP certificate and passed the MRCGP exam, both of which gave them a heightened sense of personal and professional credibility, and they felt members of the general practice community.

As one GPR commented:

"The whole exam thing was hard at the time but I am through it now and I know I have passed it and I feel good about it. It is good being a member of a college.[...] It gave me a lot of confidence to start to see that I can make decisions about patient care based upon the best evidence, that I don't have to rely on other people to do it and that is a sort of liberating thing and having gone through the video, I know I can consult ok, I know I can do an audit and I know I can read and interpret a scientific paper now to a standard that is pretty good."

GPRs reported that passing the MRCGP increased their self-confidence and that they felt the assessment curriculum had enhanced their skills in clinical audit, patient consulting and their ability to critically evaluate the evidence base of general practice. Consequently, they felt more capable and willing to challenge the present methods and standards of clinical practice and more empowered when discussing clinical issues or patients with hospital doctors or other general practitioners.

The assessment curriculum also enhanced their group working by developing a peer learning set which remained in place after the assessments were complete. This was part of the process of socialising their learning, which involved them 'learning with

and from others' and was an important change in their learning during the year.

Through this they were able to calibrate their own knowledge, beliefs and clinical actions with a group of trusted peers. Their increasing confidence and their sense of professional recognition by the practice and their trainer changed the dynamics of their working relationship and they viewed their trainers in the last few months less as an expert and more as a mentor and colleague.

The Internal Curriculum

The Individual Curriculum

Introduction

The individual curriculum was the main driver of GPR learning during their year. The curriculum was experientially-based and composed of patient-based clinical experience and epiphanies. It was a dynamic curriculum comprising a continuous series of disjointed, unpredictable, non-linear experiences. It was highly individualised and private, and flourished within a supportive practice-based learning environment. Moreover, it had a direct and continuing effect on what GPRs learnt, how they learnt, their practice of medicine and their definition of their 'professional' self. It is comprised of the lived, clinical and professional experiences of the individual GPR and grows within these, and is defined and described by the experiences, patient contacts, stories, epiphanies and relationships that the GPR has. It is not limited in either its clinical content or its personal and professional boundaries. Through it, GPRs acquire practical clinical knowledge which is derived from the patient experiences (particularly epiphanies) and professional dialogue they have.

Through the individual curriculum, GPRs learnt from and with others. This was also an outcome of the assessment curriculum but in the individual curriculum the social dimension to their learning intensified and deepened and as a result of the experiences they had it brought them into deep contact with other professional colleagues. Through this they were exposed to a hidden curriculum through which they acquired a critical sense of their professional self and the professional values, attributes and behaviours that define general practice.

The individual curriculum, though unique to each GPR in terms of their experiences and relationships, built across the cohort of GPRs similar learning outcomes and changes to their practice of medicine. Immersing GPRs in professionally supported environments with similar learning cultures, yet varied individual experience, produces consistent and positive changes in their learning and clinical practice.

The Structure of the Individual Curriculum.

The individual curriculum is structured around the clinical (patient) contacts and in particular the patient-based epiphanies of the individual GPR. The organisation of a GPR's work meant that on average each GPR consulted with 10-14 patients per surgery (at 10 to 15 minute intervals) and had approximately eight surgeries a week over a forty-week year. In addition to this, they undertook a minimum of twenty out-of-hours sessions per year, an average of six home visits to patients per week, and consulted patients in specialist surgery clinics such as diabetes, minor surgery, asthma, etc over the course of their year. Over the duration of their year, each GPR had on average between 3500 and 4000 patient contacts. These were context-specific and varied between general practices depending on the demography of the practice

(e.g. rural or inner city and social class). GPRs therefore had a significant patient contact during their year and it was from this that their individual curriculum was derived.

The curriculum was structured around two main areas:

- The clinical experience GPRs had and, in particular, critical clinical events (epiphanies) which challenged them as doctors or individuals or both and caused a degree of emotional dissonance which resulted in them re-thinking their clinical actions, personal beliefs, values or professional behaviour.
- The learning environment and climate in the training practice. This was centred around the GP trainer, who was critical in setting and managing a learning culture which valued and facilitated their individual learning by providing a graduated clinical exposure in a safe environment and constructive formative feedback based on a challenging yet supportive relationship. The educational environment was an outcome of the official curriculum and the standards it required of training practices and GP trainers.

The individual curriculum was personally-focused and emotive and was accessible through the stories GPRs told and the experiences they described.

Content of the Individual Curriculum

The particular content that the GPRs identified in the interviews as important is categorised and described next.

The Unpredictable Content of Clinical General Practice

The content of the individual curriculum comprised the day-to-day clinical and professional experiences GPRs had. The nature of the patient contacts in general practice was unpredictable and learning to manage this unpredictability was important for GPRs. This contrasted with their hospital experience which was largely content-specific to the specialty within which they were working. The unpredictable nature of general practice impacted on GPRs at an early stage and they realised they had to be personally resourceful in dealing with clinical problems and seek the help of others. For example, two GPRs who had no previous experiences in obstetrics and gynaecology describe their first experience in general practice in this clinical area:

“You can’t ask patients at the desk before they make an appointment what is wrong can you? I had never done O&G and my second surgery ever was a woman who wanted to discuss HRT (hormone replacement therapy). She was on one kind and wanted advice about another. To be honest, I had no idea so I thought ok back to basics and I built up my understanding and agreed I would phone her after I had discussed it with someone. I did read a bit about it and I phoned another GPR I knew had done lots of O&G and it wasn’t that difficult once I had sort of got my head round it and I phoned her (the patient) and changed her onto a different type. I learned a fair amount about HRT but also about how I could cope and how I would need to learn to ask other people.”

“I was anxious about gynae. Being female, I thought I would get lots of women coming to see me and I my first patient who was a young woman about 17 who wanted to go on the pill. There had been a scare about the second generation pill in the journals and she had loads of questions. I got in a terrible mess trying to deal with it. I managed to get through it but afterwards, I went to speak to the practice nurse who I knew had done some family planning work and she took me through it and you know I thought it is the only true way to learn and you can try and be prepared but you can never be sure what patients will ask or what.”

Both examples illustrate a recurrent theme from the early interviews which is that the GPRs learnt the importance of getting advice from others both within and external to the practice. In the examples above, the GPRs contacted in one case another GPR and in the other the practice nurse rather than their trainer. This characterised their early

learning where they tried to solve clinical issues without using their trainer. The reasons they gave for this were, firstly, a worry about disclosing their ignorance to their trainer, which they described as a legacy from their hospital training where seeking help with clinical problems or admitting ignorance were not always viewed positively, and secondly, a wish to choose those they learnt with and from and to begin to construct their own learning network.

The Importance of Epiphanies in GPR Learning

The most important single learning event reported by GPRs occurred as a result of patient-based experiences and in particular epiphanies. All the GPRs gave examples of epiphanies that had a significant and lasting effect on their personal and professional development. In telling their stories, GPRs used language that was emotionally detailed, descriptive and intense. On occasion the whole interview was devoted to a single epiphany. The epiphanies they discussed in the first and second interviews tended to be those that they had reflected upon, discussed and worked through.

In the final interviews, GPRs brought epiphanies they had not discussed with anyone else or which they were having difficulty interpreting. This allowed for the shared interpretation between the GPRs and researcher and this provided a rich and detailed insight into the GPRs' process of interpretation. This process of evolving interpretation also occurred outside the research setting: over the course of the study 12 GPRs sought guidance from the researcher about an epiphany outwith the research schedule. The major epiphanies described by the GPRs, though grounded in different events, resulted in a number of common 'realisations', which were largely

independent of the detail of circumstances of the event. A similar event, for example the sudden death of a patient, could be interpreted differently by individual GPRs and the learning derived from it was not necessarily the same. Therefore, merely documenting that a GPR had a particular experience did not ensure or allow any inference about the learning outcome they individually derived.

In analysing and categorising the epiphanies, the researcher grouped them thematically based on the joint interpretation with the GPR ('realisation' or 'learning experience'). The main epiphanies and the frequency with which they occurred are listed in table 1. In total one hundred and forty six epiphanies were identified.

Epiphanies	Cohort 1 number of epiphanies	Number of GPRs reporting	Cohort 2 number of epiphanies	Number of GPRs reporting
The realisation that individual GPRs had continuing responsibility for patient care	22	22	22	20
The realisation that there were social and public expectations of a general practitioner	12	10	7	7
The realisation that there are limits to medical care and learning to manage feelings of helplessness	8	8	7	7
Identifying that there are inconsistencies between what doctors say and what they do	6	6	4	4
The shift in focus from striving to cure patients to learning to care for patients	4	4	6	6

The consequences of 'near misses' and the importance of learning from these	6	6	3	3
The realisation of their ability to influence change	5	5	3	3
Patients unexpected kindness	4	4	3	3
Patient complaints against the GPR	3	3	4	4
Breakdown in Doctor /patient boundaries, importance of maintaining a distinction between professional and personal life	3	3	3	3
Limitations of GPRs own life experiences	3	3	2	2
Insight into the life others lead and the unfairness of life	2	2	1	1
Importance of time management and being organised	2	2	1	1
TOTAL	80	78	66	64

Table 1: Frequency of epiphanies reported by GPRs

Two areas were of particular importance during the interviews. These were the realisation that GPRs had ongoing responsibility for patients and the realisation that they had social as well as clinical responsibilities. These two themes are developed in detail below.

Epiphanies and the Clinical Responsibility of GPRs

By far the largest and most important group of epiphanies related to the GPRs' realisation that they now had personal and continuing responsibility for a patient. Forty two GPRs described such an epiphany; the majority (32 out of 42) occurring in the second quarter of the year. The epiphanies were unexpected and often immediately arresting. GPRs described feeling "anxious", "frightened", "apprehensive", and "shocked" during the event but managed to "get through it", "survive it", "come through in one piece", and "not make a fool of myself". A common feature was that the event left the GPRs feeling "out of their depth"; it took them into a situation that they had neither expected nor previously experienced and left them feeling isolated and having to manage. The situation required that they exercised emotional control and they often had to suppress how they felt. They described that after the event they were unable to continue working and had to create some 'space' to handle their emotions. However, the pace of work in general practice meant that they could rarely find time to manage their feelings at that moment and had to set them aside and deal with them later.

The following are examples of epiphanies described by GPRs which illustrate the content of the epiphany and the GPR's response to it and learning from it:

- **Dr FA:** Dr FA was called to a house to see a 74 year old woman with chest pain. The patient's husband and daughter were present. As Dr FA examined the patient, she suddenly deteriorated. Dr FA instructed the family to call an ambulance but the time it had arrived, the patient was dead. The doctor had to certify the patient as dead and the ambulance crew left after this, leaving the doctor with the

husband, the daughter and the dead patient. He had to phone the surgery for advice, and his trainer talked him through it. Dr FA describes how he felt:

“It was really awful. I didn’t know what to do and I was thinking they (the husband and daughter) will be blaming me and thinking he should have or could have done something more. I mean, what do you say? Her husband and daughter were really upset and the daughter phoned her brother and asked if I could speak to him. I just didn’t know what to do. I had never been at a death in the home before. My trainer, I learned later, had decided to leave me to deal with it so he could give me advice at a distance and over the phone. At the time I thought why doesn’t he come and sort it out, but afterwards and now I can see that by leaving me there, I had to work through it. I still think about it and feel pretty pathetic about some of the things I said and did. I was learning at their expense but that’s, I think now, how it’s going to be. Nothing could have prepared me for that situation, nothing. I will do it better next time. I realise it is the only way you have to go is to go through it. Protecting me from it, wouldn’t have helped because at some point, I would have had to have faced it.”

- **Dr IC:** Dr IC was working in a semi-rural practice. He was out doing house calls when he received a phone call from the surgery saying that an ambulance requested a doctor to attend a road traffic accident a couple of miles from where he was. The other partners were busy, one doing a hospital session, and his trainer was in the surgery 30 minutes away from the accident. He spoke to his trainer and agreed that he would attend the road traffic accident. Dr IC describes what happened:

“I drove over to the accident and was met by a queue of traffic. It was a quiet road and I pulled out and drove down slowly the other side. I stopped by a policeman and explained who I was because we had never met before, and was waved through. He explained that there was one ambulance on the scene and another two were on their way and a fire engine was coming. I parked my car and I can still remember the scene. There was a head on collision between a small car, a Ford Ka and a lorry on a bend. Bits of the car were strewn across the road but what I recall was the awful crying, someone shouting “Oh God help me”. The ambulance crew were there, there were three people badly hurt in the car. The lorry driver was ok. I went over to the car there were three teenagers, I later learned, aged 16, 18 and 19. The driver I was pretty certain was dead. The first passenger had head and chest wounds and the back seat passenger was screaming “Oh God I don’t

want to die, help me". She had leg injuries. I was there for about one hour I think. I will never really forget it. Initially the ambulance crew looked to me to arrange the situation and I did what I could. There was no one else. I had hardly any A and E experience, so I did what I could: I set up a line and gave pain relief..... The fire brigade when they arrived, cut them all free but sometime into it, my trainer arrived. He recognised the dead boy as a patient and knew the family reasonably well. He was really supportive and fed back that the ambulance and fire brigade were truly grateful for my help and that I had really been invaluable. I still felt, still feel really, that I did so little, though I can hardly remember a lot of it because most of it I was on automatic. But the one thing that I do remember was that my trainer then said to the police that he would go and break the news to the family of the dead boy because he didn't want the police doing it and he said he wanted to go alone and would I mind. He asked if I could go back to the surgery and see anyone who needed seen and just generally keep things ticking over but to take my time first and get some lunch and that there was nothing back there that couldn't wait. I really admired him for taking on the responsibility of telling the family: it must have been really really hard. You know we never really talked about it, what he said and how he did it, properly until weeks later, probably a month later when, during a tutorial, he brought it up. I can still remember thinking as I was driving back to the surgery how unpredictable General Practice is and how unprepared I had felt. How my day had just changed.

- **Dr AR:** Dr AR had seen a man in his early twenties on two occasions with possible depression. Dr AR had not been convinced that the patient was depressed and wondered if he was unhappy at work or if there was something else going on. Dr AR had found the consultations quite difficult and had not found it easy asking questions about the patient's personal life. He admitted that when the patient failed to turn up for a follow-up appointment, his first feeling was one of relief. Dr AR then describes what happened:

"I didn't think much about it (the patient not attending) until three days later. It is not uncommon that patients don't turn up. There is quite a high DNA rate but I came into the coffee room and there is a wipe board on the wall where we put on patients' names either who have died or have been admitted to hospital or if there is new or significant diagnoses so that everyone can know what is happening. And I glanced up at it when I was pouring my tea and saw the patient's name on it. I couldn't believe it initially that he had died. There was no-one else in the coffee room at the time and I went out to reception

and got his notes. There was nothing in them to suggest that he had died and I asked the practice manager thinking that it must have been a mistake and she said that the hospital had phoned that morning to let us know that he had died. He had taken an overdose of paracetamol and codeine. I phoned the hospital and found that he had been admitted eight days previously, having taken quite a large dose of paracetamol and codeine and alcohol and some of the seroxat (anti depressant) that I had given him and they thought some other drugs: because of the delay in finding him he developed liver failure and died.

I was really shocked hearing the news and I can still remember hearing it over the phone and I thought to myself you know, it can't be, how did I let this happen. My trainer was just finishing his surgery and I went in to see him and explained what had happened and I must have gone on about it for half an hour or more talking it through and he listened to me and we talked it over and he advised me to think about it and we would discuss it later. I think he recognised that I was feeling guilty but I couldn't really explain to him why because my management, and we had gone through the notes, was ok. I used the tutorial the following day to talk over what had happened with him and we agreed logically that there is just something nothing you can do to stop people taking their own lives and many people who commit suicide, see a doctor shortly before they do it but it wasn't that that was really troubling me. It was that I didn't really like the patient, I think, and I felt guilty that my own feelings and somewhat my lack of sympathy for him, maybe had driven him away. You know, as I said, I felt relieved. It is terrible now to think back but I felt relieved that he didn't come back for the third appointment because I found the consultations so difficult and I don't know what but I think there was something quite painful about them and difficult and I felt terrible because I felt it was a terrible way to feel and I still feel ashamed of how I felt. I probably couldn't have done any more, you know, clinically. I know that, but I could and should have been more understanding. I should have thought through about how I was feeling and I'd hope that it hadn't been me that had put him off. You know I can still see him clearly. I can still see him as one of those people who sort of haunt me. I have seen other patients you know three, four times and I can't recall their face as clearly as I can recall his."

Dr SD: Dr SD worked in an inner city practice in a relatively deprived area. She described how she had seen a patient on two occasions for relatively non-descript symptoms and the patient was mainly describing feeling tired and generally unwell. Dr SD had examined her and had done some blood tests, all of which had been normal. The patient had come back for the results and Dr SD thought that the

consultation would just be a short one in which she would give her the normal results.

Dr SD takes up the story:

"I was running late, it was an afternoon surgery and I was on call that night at the GP co-operative and I wasn't feeling all that great about it. Mrs P came in and I thought it would be relatively quick and said to her you know that her blood tests were normal and I was just about to sort of then go on to say it was probably a viral type of infection and would get better but she said to me, 'Oh I knew that doctor, I thought they would all be normal', and then there was a pause and she said, 'there is something I need to tell you, I need to talk to someone about it', and then she burst into tears. I was thinking oh no it was the last thing that I need at this time in the afternoon and she was quite a sad soul and I was sort of irritated and I sort of stretched for some tissues and after about three or four minutes she sort of stopped crying and started to speak to me and I said, 'Well, what is it?' thinking that she was depressed and happy in my mind that I was going to have to prescribe her anti-depressants and my other half of mind was on the clock thinking I was already running more and more late. She said to me 'I am really sorry' you know, but and then she said something that really stopped me, she said 'as you have been so kind, I just think I can talk to you and I need to tell someone' and then she said right out that she thought that her new boyfriend had been abusing her daughter. Her daughter is seven and it is just one of these things that stops you right in your tracks. I mean what do you say? What do you do? I didn't know what to do. I had only been in the practice four months. I had had some stuff about child protection and here I was, it was about quarter to four, I was half an hour late and she is telling me this. You know, half of me just wanted to think that this isn't happening, this can't happen, I don't have time for this and the other part of me was telling me this is really serious, I have to deal with it. I really didn't know what to do and I was internally in a panic and I thought settle myself and I surprised myself and it was like I heard a voice, my voice, say to her, "tell me the story" and she told me. And after she told me I said we need to do something about this and she agreed. Anyway to cut a long story short, I went and spoke to one of the partners who got things arranged, we got her daughter round and got her up to hospital and took all afternoon. The other partners were really good and said you sort this out and one of them helped me through it and the others took on seeing my patients. It took about two hours to sort out, you know, get the daughter down, get her into hospital, explain what was going on, talk to the paediatrician and all the rest of it. It turned out, you know, that she had been abused according to the paediatrician and the police and social workers got involved and the woman was really grateful to me because I had taken the time to listen to her and because she felt she could speak to me. And I thought, you know, this would be a simple consultation which just took for ever but what I did was really important. You know what I did for that kid and for the mum was really, really important, and the partners, in particular the one who

helped me, said, 'You know this woman had probably been trying to tell people for a while because she had been in to see other doctors' but for some reason she felt she could talk to me. It is a real responsibility to carry. I am still seeing the woman, still seeing the daughter and helping them through it. There is a lot there that is still unsaid but we are working at it.

When you think about it, it just came out of the blue, you know. I had no expectation that it was going to happen and in some ways I was really glad. If I had know that was what she was going to come in and say, I would have been a nervous wreck and probably would have run a million miles from it and asked someone else to deal with it. In General Practice you just never know and I handled it. I learned how to deal with something like that. I learned how to deal with something as important as that and I saw how people could help you and how other people would carry some of the load that you were carrying. I learnt so much from that and I hope, well I know in fact, that she was really grateful to me."

The following is an extended unedited section of an interview with a GPR describing an event four months into his year. He describes the effect on him of the death of a young patient he had seen once at home. He had sent her into hospital but she took her own discharge and shortly after this died.

R(GPR): Something that had a big impact on me recently actually was a woman I went out to see when I was on call in R----- and she had chest pain and it was kind of, she looked like she was having an MI, a young woman she was forty something, looked like she was having an MI and she'd been sort of sick and sweaty and all the rest of it and had a lot of chest pain but she had kind of pleuritic pain and I couldn't work out, she'd just come back from holiday. I sent her in and apparently she self-discharged later that day from casualty and had been completely well and came in to see S----- (his trainer) the next day

I (Researcher): Yes.

R: And had seemed completely well and she said well you know all of the investigations were normal that we did but you know you really should have been in, but it looks like you've been lucky, you're completely fine now, all the pain and everything's settled that's fine and that night she died of a massive MI and presumably she'd had an MI the night before but you know that kind of, somebody having something like that and coming in and seeming completely well again I think has had a big impact

on me. There's going to be an enquiry and everything else and it's all a bit messy but it's you know it could have easily been me.

I: Hmm mmm.

R: And I think about it a lot, you know maybe people's stories actually, people's stories about patients, influence me as much as actual patients because there's an awful lot of these kind of stories that you know, there's no real way to tell definitely but you know I could easily have made the same sort of mistake.

I: Why do you say a mistake?

R: Is it even a mistake? I don't know, probably.

I: You didn't know she's self-discharged, no?

R: No, and I didn't know that, I mean I didn't know anything, I didn't even know she'd got to hospital and I was just like, oh, I was the last person to see her.

I: What did you do? (Once he had found out she had died)

R: I got my notes and had a look through

I: For what reason? What were you looking for?

R: Probably more than anything to check that it wasn't my fault [laughs].

I: OK, yes, to make sure you'd made an entry.

R: Yes because I didn't know why she'd died or what you know.

I: Right.

R: It was just a sudden kind of oh no and I think that's probably quite a common reaction.

I: Aha.

R: That kind of like oh no, was it me?

I: Yes, yes.

R: And then I saw that she'd done that (self discharge) but then you know, you'd expect to feel sort of relief at that but actually I didn't because I sort of felt, I couldn't, I couldn't quite understand because of what happened and all the investigations were normal and things and I just sat down and thought it over and spoke to my wife about how I felt so, you

*know, and then when we talked about I and then, I talked about it with S--
-----*

I: And how long a period did that take that, you saw her one day and then S saw her that night, is that right? Or later that evening?

R: The next day.

I: Next day and then she was dead that night so she had about a thirty-six hour period.

R: Yes and I saw, I saw the notes about, well I'd been off for two days actually you know, it was a course or something, so that was the Monday Tuesday or Tuesday Wednesday and I think it was the next Monday I saw it.

I: Aha so it was a week almost.

R: Yes.

I: How did it leave you feeling at the end of it?

R: It left me feeling kind of, I suppose you can never really be sure.

I: Hmm mmm.

R: You know, there's one of the, you know, everybody says about GP it's kind of managing uncertainty and you have responsibility but sometimes it just comes home to you a little bit and I think that's, that did then.

I: And why did it particularly come home to you with this case? What was it about it?

R: I suppose one that I'd met her.

I: Yes.

R: And I hadn't really got to know her, that was the first time I'd met her but I'd met her and I'd met her husband and she was young and previously no problems whatsoever, you know, so there's a kind of personal aspect. I recall the house silly things picture of her twins on the wall they'd be about seven and I remember saying 'are they at school?' and I can see the room and the house it is clear, clear as when I was there.

I: Right, what things do you remember about it?

R: I remember trying to get there quickly in the car and getting frustrated about the traffic and arriving and the guy coming running out and I sort of went in with oxygen and everything and she was, had been sick in the

bathroom and she was just kind of coming out of the bathroom clutching her chest. I remember the room as I said.

I: She was that ill.

R: Yes, yes she'd sort of thumped down into the chair, was clammy, pale, grasped at her chest, gasping for breath, pulse rate was up, I couldn't really hear anything.

I: Right.

R: She wasn't tender and she looked for all the world like she was having an MI.

I: Yes.

R: But you know it was pleuritic pain, it was pleuritic pain kind of here somewhere and she'd been, she'd just come back from a long distance flight the day before so I was thinking pain, don't know.

I: Think of admission.

R: But definite admission and I actually called the ambulance before I left the practice.

I: Right.

R: Yes and I remember sort of sitting there you know like this kind of, because I hadn't done any emergencies in people's homes and there was this, it's sort of odd. It's kind of what I do now, you know, because you know the sort of the ABC and all the rest of it, but I was there and she was there and she had pain and OK I was thinking right OK well what do I do? Give her an Aspirin right, some oxygen right, IV access OK. I was just getting on that but it was very much kind of like, you know, where's the ambulance? You know, I want some; it's a very uncomfortable situation.

I: Given that she was that sick when you saw her and then she was well later, what, I mean did you look at the tests and everything that were done?

R: No.

I: You didn't re-examine them yourself? You didn't have a look at the ECG or?

R: They weren't, it was all done in casualty.

I: Yes, that's what I mean, but you didn't?

R: No I didn't. I didn't go and see it.

I: Right, OK.

R: It would have been interesting actually to see the casualty entries I think.

I: Yes.

R: And I might yet I suppose but...

I: Just didn't follow that through. What do you think happened then? How do you explain to yourself how someone so ill as that could then be well and then died?

R: Yes erm.

I: What do you think the patho-physiological process was that was going on?

R: I can't explain the pleuritic pain and I suppose technically, if she'd had, you know, pain like that for an hour or two, it could be unstable angina or something but it didn't look like it.

I: Yes.

R: She looked really sick.

I: Right.

R: And yes it could settle down and then she could have an MI or she could have an MI and I know the, what was it, ventricle had ruptured or something.

I: Yes, is that right?

R: Yes. I think yes but they said it was a recent, a more recent infarct from the day before, they thought, the pathologist thought.

I: Right so had the pathologist been able to explain your symptoms, the symptoms you saw?

R: No, no, or not as far as I hear. I haven't seen the official report but as far as I know they said it was an MI that day.

I: Right, OK that's interesting, and what's going to happen now? You said there's some sort of enquiry.

R: I presume there will be. The husband's very angry at the hospital particularly because, and I think the reason she self-discharged was because there was such a long wait; there was something like a five-hour

wait to get admitted to the ward, so I presume she'd gone into casualty, her pain had gradually settled, people had got less and less sort of worried about her. Bloods and ECG and things had been normal, she'd stopped having pain so probably took the oxygen off, maybe a shift changed. I don't know and, you know, and then she seems well and OK maybe it wasn't as much pain as that or she wasn't as ill as that earlier and so she can, you know, wait around and it's just kind of gone like that and she's been sitting there for a while and seemed well and she's gone, 'Oh', you know, 'I'm off home'.

I: And just sort of one final thing on that, I mean how, how has that made you change your clinical practice if at all? Has it had any impact?

R: I think it's made me a bit more paranoid [laughs]. Well it made me think about how I deal with emergencies.

I: Yes.

R: And I mean that was one of the things that we talked about with S---- because actually I had a tutorial with her later and we sort of talked about that and you know it led on to you know, what you keep in your bag.

I: Yes.

R: And you know, just general approach to things, which was useful. So I think I'm probably more comfortable in an emergency, if you can possibly be comfortable, but also I suppose I'm not scared. I don't rely on hospital opinion.

I: Right.

R: I think. And I'd been much more comfortable sending somebody like that back and actually the week after I'd somebody with a sort of pleuritic chest pain that had been investigated a couple of days before by the hospital and I wasn't happy with it and she was really quite breathless. You know, she'd been into the hospital, a young woman, twenty odd, and she'd just had this kind of shortness of breath and a kind of pleuritic chest pain and they said, 'Oh it's muscular skeletal' and she'd been overnight and they sent her out but they hadn't done a VQ and she came in to see me and she was actually really breathless, she couldn't climb a flight of stairs without being completely out of breath and I couldn't find anything at all and there was no tenderness and I'm just like I'm not happy with that and sent her back and I think that's probably quite a healthy approach.

Epiphanies and the GPRs' Definition of their Role as a General Practitioner

GPRs described how epiphanies played an important role in broadening the GPR's concept of their 'professional self' and their understanding of the roles and social responsibilities of a general practitioner. Prior to entering general practice, most GPRs said that they considered a good doctor as one who was clinically competent and caring. Patient care, particularly individual patient care, was the most important aspect of a doctor's work and their judgments about other doctors were made by this criterion alone.

During their year in general practice, they were exposed to events which challenged this narrow concept of a doctor's function and forced them to re-think what medicine is for and what their role as a doctor is. The epiphanies that led to this transformation included having to deal with issues such as a child being hit by a car on her way to school; problems with the local ambulance services; provision of social support for elderly and infirm; dealing with a difficult / unprofessional colleague; managing clinical underperformance; involvement with drug and sex education at a local school; child abuse; closure of the community hospital; service provision for patients; cancer and ischaemic heart disease; work-related injury; immigration and asylum policy; racism; claims for environmentally-related illness; employees' rights; and working conditions.

GPRs initially were wary and often unwilling to extend their role and responsibilities into areas they considered to be political. Many felt it was inappropriate and that they were ill-prepared and reluctant to become involved in social or political issues. However, through their experiences and discussions with their trainers, they developed a broader definition of their role as a general practitioner. They adopted

this extended role with varying degrees of enthusiasm but each GPR could describe a situation that particularly challenged what they considered to be the limits of their professional responsibilities and how this had impacted on them. Two examples of this include the following:

Dr AL: "I think I mentioned seeing the child that was knocked down outside the local school, do you remember me talking about that. I had to deal with her and her parents after she came out of hospital. It was all really sad. Remember she broke her leg and had chest injuries and was in hospital for a while with a neck injury and after she was discharged from hospital, her mum was in and she had started a campaign to get the speed bumps and a 20 mph limit arranged outside the school and she asked if I would write to the local MSP and council expressing my view and supporting her. Initially, I was really uncertain what to do and didn't see it as my role to get involved. I hate all that sort of stuff. I spoke to a few friends who were non-medics who said I needed to get involved and they said it was my public duty because of what happened. So I did and I supported her petition and I wrote to the MSP on practice paper and to local counsellors. I don't know if it will do any good, but she was really grateful and I think it was the right thing to do. There is no point just picking up the pieces. It's the old saying 'prevention is better than cure' you know, you forget that doing medicine it is all about picking up the pieces, putting people back together again."

Dr PT "I have a family I am dealing with who are refugees. It is a sort of long story and a pretty grim one. They are from Afghanistan. The husband is an engineer but he just can't get work here at the moment and it is largely because the system, you know the immigration and asylum system, is so crap at helping him. You know they are decent folk and it is a real struggle for them to get anything. A little bit of money to get the kids educated, to get work for him or for his wife. It has really been affecting their health. They have a named worker who works for the asylum system and he and I have been doing what we can. I feel more like their social worker than their doctor but, you know, it is amazing the power you have within the system. I never knew it before but people listen. I mean people in the Government, the civil service listen to a doctor and particularly they get twitched if they write letters or phone them and I've seen this as my responsibility because no one else can really help them. I feel strongly about it seeing them and when you listen to or read all the crap on TV or in the papers about immigrants and that it really makes me angry."

The learning outcomes from the epiphanies are developed in detail in the section on the outcome of the individual curriculum.

The Processes of the Individual Curriculum

Managing Epiphanies

Learning to manage epiphanies was critical for GPRs, and they described a similar process, central to which was their trainer and the informal network they had within the practice. Their immediate need after the event was to dissipate the emotion and seek reassurance and feedback that they had managed things acceptably. They sought continual reassurance and feedback from their trainer and from partners/spouses or friends external to the practice, even though this, on occasion, could potentially have compromised patient confidentiality, but their personal need to talk about the epiphany overrode this.

Their interpretation, at this stage, was relatively superficial and concerned with their emotions around the event. Once these were contained they moved to a second interpretative stage where they sought critical engagement and dialogue about what happened and how they managed it. This involved a deep exploration and interpretation with their trainer. It entailed a detailed and prolonged exploration of both the event (what happened) and the GPR's reaction (what they did). Through this interpretative process they constructed a number of learning points, which were clinical or personal or both. The GP trainers' role in this reflective and interpretative process was crucial to ensure that the epiphany resulted in a positive learning outcome. For example in Figure 1, two GPRs describe a similar event which resulted, in one case, in the GPR taking a positive learning outcome from it and in the other, the GPR viewing it as negative experience

Figure 1

Two GPRs from different surgeries described a similar scenario that occurred at five months and six months into their year, respectively. The details differed in each scenario but the outline was similar. In each scenario, the GPR was on for emergency calls in surgery during the day.

Case A.

The GPR received a call from a parent of a four-month old baby who was described on the phone as unwell, vomiting and pale. The GPR accepted the call and visited the baby at home. He could find nothing specific and advised the mother to call again if the child became any worse or if she was worried. The child didn't improve over the day and the mother phoned again in the late afternoon. The GPR was no longer on call for emergencies but the on-call GP within the practice took the call and asked that the GPR follow-up the call as he had seen the child in the morning. The on-call GP felt this would be an important learning experience for the GPR. The GPR reluctantly accepted and visited the baby. The baby was in his opinion, slightly worse and he agreed with the mother, however, to wait and see as he could find nothing specifically wrong. Over the course of the early evening, the child did not improve and later that evening, the parent phoned the out-of-hours service and the child was admitted to hospital, diagnosed with pneumonia. The child was successfully treated and subsequently discharged 10 days later. The GPR saw the out-of-hours slip documenting the admission the day after it had happened.

Case B

The GPR was on for house calls and the second call was to a six-month old baby who was not feeding, had vomited once, and whom the mother thought was fevered. The baby appeared well and the GPR could find nothing specifically wrong and advised the mother to push fluids, give it 12-24 hours, and if there was no improvement, to phone the surgery. The GPR subsequently went on a two-day course and was absent from the surgery. The evening following the GPR's

visit, the parent phoned the out-of-hours service. The baby was seen by a visiting doctor and admitted to hospital. It was diagnosed with a viral infection, had a complicated stay in hospital but was subsequently discharged some three weeks later. The GPR who had been on the two-day course did not see the out-of-hours admission note and did not learn of the baby's admission to hospital until some three weeks later when she read a discharge letter from the hospital.

In discussion, the GPR in Case A interpreted his experience positively. He described how he had initially visited and carried out an assessment which he documented. He revisited at the on-call doctor's request and documented and agreed a management plan with the mother. The child had pneumonia but he was reassured that pneumonia in a young child was difficult to diagnose and that even the out-of-hours doctors had not diagnosed this but had, given the child's history over the previous 24 hours, felt that admission was necessary. The GPR in this case felt his approach had been reasonable but had identified for himself the need to reflect on the assessment of young babies in General Practice. He felt that the partner that asked him to revisit had had his interests at heart and he had talked over the case with both the partner and his trainer. He reflected on his assessment of young babies and in discussion with his trainer, and received positive feedback on his abilities.

The GPR in Case B interpreted her experience negatively. She felt she had properly assessed the child but was annoyed that no-one in the surgery had informed her of the outcome and in particular that the child had been admitted to hospital. When she had tried to discuss it with her trainer, he couldn't really understand what her concerns were and reassured her that "these things happen". She felt vulnerable because by going on the course, she felt she had not been in a position to reassess the child or follow it up. She felt that she had missed the diagnosis and felt that the doctors in her training practice probably felt this also but did not want to upset her by

discussing it. She concluded that she was probably not good at assessing babies and that she would in future admit babies with non-specific symptoms. Her reasons for this were (1) to be on the safe side, (2) because of the stress, anxiety and loss of confidence she had experienced as a result of this case, and (3) because she had a lack of faith in getting accurate feedback from the practice. She wondered if her GP trainer had confidence in her and wished that he had spent time going over the case in detail with her and listening to her concerns rather than just reassuring her.

Importance of the Learning Environment in the Individual Curriculum

GPR learning from epiphanies was supported by the learning environment in their training practice. The most important component of this was the availability, accessibility and sensitivity of their GP trainer, who encouraged their reflection and provided constructive feedback. As illustrated above, this was essential to GPRs deriving a positive experience from the event. GPRs identified other features of the learning environment and culture that assisted their reflective learning. The most important of these was, as one GPR said, “the ability to learn by doing in a safe and supported environment”. This concept of safety was important as it allowed GPRs the opportunity to try out management and communication strategies with patients and learn from their attempts. This process allowed them to apply lessons they derived from previous experience or from discussion and reflection with their trainer. This was particularly so in relation to patients with whom they were having difficulty or where they were uncertain about their clinical management. For example, two GPRs discuss two different clinical cases as described below. In the first example, the GPR describes the case of a 26-year-old, recently married, female solicitor. The following is a transcript of part of the interview

I: Can we talk about one of the cases that you mentioned?

R: Yeah, ok, how about Patient A.

I: Have you got the notes? Can you just talk me through?

R: Ok. Five weeks ago, roughly five weeks ago she presented. She is 26, recently married and works as a solicitor in one of the big firms in Edinburgh and her husband is a solicitor as well and they have just bought a flat together and she came into see me because she was complaining of headaches. It was end of an afternoon surgery. She had obviously come from work and I found it (the consultation) quite difficult, you know, she is roughly the same age as me, I have just got married recently and I could identify with some of the stuff she was talking about. But the main thing was that she had headache

I: Ok can you describe in some more detail what was going on, what were the problems?

R: Well she had headaches and headaches were..... I'll take you through the story. The headaches were worse in the morning and they got better as the day went on. They had been there for about seven weeks. She had been married for about four or five months now. There was really no other symptoms apart from she felt sort of restless sometimes agitated, bit tearful on occasions. She had noticed also that her heart had been racing when she was in bed at night and a couple of times when she had been at the gym, she had got short of breath when she was doing that treadmill thing or spin cycling and she had some diarrhoea. Her parents are alive and she is an only child and there was really no past medical history.

I: Ok so what was your initial thinking about what was going on?

R: I really didn't know, it was difficult..... I thought she probably had some sort of anxiety or depression. That's what I was thinking with getting married and pressures of the job and that, and also because it was late in the afternoon, I really couldn't do anything but I thought I had better get some tests done because at the back of my mind is there something physical going on here? Though I thought it was unlikely. I thought she might be hyperthyroid (hypothyroid?) so I arranged for her to come back and see the nurse.

I: Ok. Hyperthyroid (hypothyroid?). Ok, and so what happened next? Did you talk it over with anyone?

R: I had a tutorial with my trainer and I talked through this with him and in the course of the tutorial, he tried to get me to think about what was going on here and we sort of teased out three areas. Maybe she did have a physical illness, maybe she had a psychological illness - you know depression or anxiety, maybe there is psychosocial stuff going on here as well - you know work pressure. We even brought up the idea hmmm is there

a sexual problem in the marriage, has she worries with her work, is there tension in their life, is she planning to have a family that sort of stuff - stuff I had never really explored with her. So the tutorial was useful and helped me to sort of tease these bits out.

I: So you felt you had three possible areas and you felt your trainer had helped you sort these out.

R: Yes that's right and what happened is that her T4 (thyroxin) level came back raised. Her TSH was low so I thought great she has hyperthyroidism and that would probably explain everything so I remember discussing it with my trainer and he said welllet's see if you look at the symptoms she has got, you have still got to try and explain them.

I: So she did have a physical problem, she was hyperthyroid, but what you are saying is that he wasn't satisfied that that was the full explanation.

R: No.....you are right. You see, previously I would have been and that would have been it. If she had been in hospital we had done that, it would have been hyperthyroid and start her on treatment which she is on anyway but she came back to see me and she is on treatment, she has come back a few times and some things have got better and some haven't and I was encouraged by my trainer to explore the other areas - and you know there are problems there which I will need to take forward. So on the one hand, we have got a thyroid level and that is going to be ok and she will get treatment for it anyway and that will be manageable, but there are other issues and the other issues really are around about her life and trying to get a balance between you know is she going to be a successful solicitor or is she going to be a mother and she is under pressure from I think her husband and her own parents and probably his - you know to have a family because she is an only child herself and a whole series of things going on there and she is wondering if the pressure she has been under has caused the illness and that was quite interesting for me because I saw the two of them as unrelated, but when she said to me, you know, 'Well, why I am hyperthyroid?' you know I really didn't know, I could explain it to her with antibodies and all that stuff but she saw it as really been possibly relating to the pressure she was under.

I: Ok. So where are you at now with her and what's happening?

R: Well the main thing is that I talked it through with my trainer and it has helped me to broaden it out and I feel comfortable now managing and exploring with her the other bits, you know, her work, her social life, and I think because I have found the physical cause she has got confidence in me to explore that. It is challenging but I think she is a woman who is hyperthyroid but I think there are unresolved problems and I think there may be issues around how she is going to get that balance right and I can see part of my role as just being there and helping her resolve it.

I: So looking back, what do you think you learnt from this episode, can you summarise it at all?

R: Well, it is just a different way of working. I would have, say six months ago when I started working here or even when I was in hospital, have been satisfied with diagnosing hyperthyroidism but her situation is much more complicated and though that is going to be treated, I need to manage the other bits. I have got to know her really well and understand the whole process of making a broad understanding rather than a definite single diagnosis.

The GPR described how he felt there were probably three diagnoses - a physical diagnosis (hyperthyroidism), a possible psychological diagnosis, and a psychosocial diagnosis related to work pressure, whether or not she was happily married, or whether there were tensions between married life and professional life, whether there were any psychosexual problems or other worries related to work. The GPR formulated a management plan in relation to both the physical and psychosocial issues. Following discussion with his trainer, the GPR was able to see the patient and illness in context and to explore and begin to manage other aspects with the patient. This process of self-reflection subsequent to a dialogue and followed by further shared reflection was important in enabling the GPR to formulate a holistic understanding of the patient. This iterative process was critical in enabling GPRs to move into patient-focused clinical practice.

In the second example, a GPR midway through his year described the difficulties he was having managing an adolescent 16-year-old boy with diabetes. The boy was poorly complying with his insulin therapy, and his HbA1C (measure of diabetic control) was high; moreover, he was not doing any home monitoring. The GPR described how he had spent several, quite difficult consultations with the boy and his parents, trying to gain a hold on his diabetic management. He attempted to modify the

boy's insulin regime and referred him to hospital but there was no improvement in his diabetic control. He described how he talked through his concerns with his trainer about the boy, his lack of compliance with his diabetic therapy and his poor control. During the tutorial, the trainer spent a fair amount of time questioning the GPR about his knowledge of the boy and his family, of which the GPR admitted he knew little. The trainer advised the GPR to stop concentrating on the boy's diabetes but to focus on him as an adolescent and to try and understand him and the difficulties that he faced.

The GPR describes what happened:

R: I have to say, after the tutorial, I was a bit taken aback because I thought I would have been given more practical advice on what to do and when he came the next time with his mother.

I: So were you.... what none the wiser? Is that what you felt? Were you disappointed at the outcome of the tutorial?

R: Well, yes and no because I noticed that he (The patient) must have got changed quickly and come straight from school because his tie was hanging out of his pocket. I recognised it and I know that the school was reasonably good at rugby. I play rugby, so I asked him if he played rugby at school and he didn't reply initially but his mother said something about it being difficult and I began to think that I wonder if this is part of his problem, that the diabetes is too visible or something and that it is making it difficult for him to play rugby and other sports.

I: Sounds like you were beginning to take your trainer's advice

R: Yeah. I began chatting to him about it. Really nothing - but just talked about rugby and about the previous Six Nations championship and he opened up a bit but then reverted. I went into a discussion of his diabetes which was no better. I was aware during that consultation.... I became aware of how dominant his mother was in the consultation and, as luck would have it, as he was going out, I said that I would need to see him in a couple of weeks and the only time available was one where his mother couldn't attend... Normally I would have changed it, but he seemed ok about it so I brought him back on his own.

I: What did you do before he came?How did you prepare?

R: I decided not to concentrate on his diabetes but just to talk to him. I talked it over with a couple of other registrars at the release course and one had done a diabetes job and said there is no hurry.

I: No hurry....you mean with getting him controlled?

R: Yeahso I relaxed a bitit took about three consultations over three weeks to really get a handle on him and to get an understanding of where he was with his diabetes. The problem was that I had been fixed on it, worrying about the complications that would result long-term from poor control - the risks, but he was denying it because of the difficulties he faced at school with having to inject insulin and avoid activities, many of which were unnecessary, and I found out he was being excluded from things unnecessary. So we agreed to look at his insulin regime, talked him through how to deal with sports activity and got his agreement that I would approach the school and either write to them or by talk to explain the situation..... I did phone them and had a chat with them and they were ok about it and agreed that he could play rugby and activities. There was no problem, they just needed reassurance. I ended up phoning his PE teacher and I was amazed just how little he understood about diabetes and it was almost as if he had it confused with another illness because he was worried about bleeding and infections..... I know it is going to be a long haul but I have stopped worrying so much about his immediate control and I am now more on him because I think if I can get his diabetes into perspective for him such that it is not seen as a burden, that is maybe expecting a lot, then the control will take care of itself. So he comes to see me quite regularly about once a fortnight, probably too often. I spend a fair amount of the consultation now trying to talk through things with him about school, rugby, other things he is interested in. He comes on his own now. I haven't seen him with his mum or his father for the past four consultations and the diabetes is there, it is just that I stopped concentrating on trying to control it, you know, get it within the right limits. I am more interested now in helping him live with it.

Both examples illustrate the importance of the GPR being given the opportunity to work through their patient management with guided support from the trainer. As a result of this, they felt more empowered in their clinical management

The Socialisation of the GPRs' Learning

The influence of their trainer, combined with the opportunity to apply evolving knowledge in practice, was further strengthened by GPRs learning to "learn from others". The emotional depth of epiphanies and the dissonance that they caused meant GPRs could not learn and function in isolation and they had to seek out and form

confidential learning networks. Their experiences in the individual curriculum made GPRs socially engage with their peers and practice colleagues, and their learning became socially constructed and based around narratives and dialogue with others. GPRs came to interpret and perceive general practice as a culture that is based on narrative and experiential stories in which storytelling and personal experience are important. They felt that experiencing something or an event legitimised their right to hold an opinion about it and gave them 'acquired authority'. Having experienced, interpreted and 'survived' an epiphany did two things:

- It elevated them above their peers who had not had a similar experience. GPRs described an informal hierarchy within their peer groups that was based around the experiences they had had. The greater the number of experiences and their perceived complexity or difficulty a GPR had, the higher in the hierarchy they ascended. They acquired a 'situated' authority within their peer group and this formed a major part of how they judged each others' capability/suitability for general practice.
- The realisation that they could manage difficult events began a change in them from being in a dependant relationship (GPR) to becoming more autonomous and independent (a general practitioner). As they successfully managed complex situations, they perceived both their self worth and esteem within the practice use. Comments from general practitioner,s, such as "We'll be learning from her soon", "She handled it much better than I could have done", and "You acted like you've been here doing this job for years", confirmed their sense of being a part of the practice team.

They came to value the importance of talking about clinical problems and patients they were having difficulty with, with others whom they trusted. They saw general practice as a learning community where informal contact and discussion was essential not only to gain knowledge and understanding, but also to share and manage uncertainty and seek reassurance. Within this learning community, GPRs began to value experience over other forms of learning and to value the 'organisation memory' within a General Practice, and recognise it as a repository of unwritten, but often very detailed, historical and biographical knowledge about patients, their families, events and workable solutions.

The process of talking through events and constructively learning from their experiences was a new way of learning for the majority of GPRs. Within this construct, individual experience was considered the highest form of learning. To have 'done something' was more important than to have 'learnt about doing it'.

Outcomes of the Individual curriculum

The main learning outcomes from the individual curriculum were derived from the epiphanies and experiences the GPRs had during their year. Epiphanies were critical in reframing the GPR's approach to learning and helping them to manage personal and clinical uncertainty. Moreover, it had a major influence on their clinical practice. For GPRs, learning to manage uncertainty was crucial and this is developed below.

The Management of Uncertainty in General Practice

The individual curriculum was, for many GPRs, an uncertain learning and working environment, and one of the most important learning outcomes for GPRs was learning

to manage the uncertainty that was part of their daily practice. Three types of uncertainty were identified in the individual curriculum. These were: clinical uncertainty, personal uncertainty and uncertainty about the value or purpose of medicine.

Clinical Uncertainty: This was the easiest for GPRs to manage because the official curriculum required that each training practice had clinical and other protocols and GPRs used these and their informal learning network in the practice to manage the common clinical problems in general practice. GPRs were further supported the availability and accessibility of their trainer and other staff who were aware of the need to protect the GPR from clinical error and risk. The need to assist GPRs in managing clinical uncertainty was recognised by the GP trainer focus-groups as an important function of the GP trainer and was embedded in the official curriculum.

Personal Uncertainty: This resulted from the GPRs' difficulty in handling the general uncertainty they felt about general practice. This included aspects of clinical uncertainty but, more significantly, was related to the early presentation of undifferentiated symptoms and the natural history of disease and their personal capacity/maturity to carry and live with the uncertain nature of their clinical decisions. Personal uncertainty was for GPRs more difficult to manage than clinical uncertainty. However, they managed it by gaining clinical experience; receiving constructive feedback on their performance from their trainer; following patients to observe the natural history of illness; safety-netting (bringing patients back, doing follow up visits, treating and referring 'just in case'); developing and accessing learning networks in practice, which initially involved younger general practitioners or other GPRs with whom they could talk over issues they felt inappropriate to take to their

trainer; developing a patient-focused approach to consulting, which involved learning to work in partnership with patients and sharing decision making; and finally, the development of heuristics for common clinical presentations.

Personal uncertainty appeared most critical between four to six months as GPRs were given increased clinical autonomy and responsibility. GPRs who were successful in managing personal uncertainty felt increasingly confident in their clinical practice and comfortable with general practice. Those who had difficulty coping with personal uncertainty continued to find it stressful. GPRs who learnt to manage personal uncertainty demonstrated this during the interviews with reference to specific patients or conditions and from video consultations, two examples of which are given below. The first is an extract from a video consultation of a GPR consulting with a mother of a young (ten-year-old) girl with asthma. In the video, the GPR focuses on the assessment of the severity of the asthma, the drug treatment and the need for compliance. The consultation is very doctor-centred, with the GPR lecturing the mother for a significant period of time. The following is a short section of the video transcript:

GPR (talking to the mother): *“Jay needs to take his medication - his inhalers regularly. The brown steroid one is really important and it is very important (GPR stresses this) that he has it as prescribed on the leaflet two times a day through the nebuliser. It is important that he needs it. Without it, the others aren’t going to work and it is important (they) the others work and they open by opening the tubes and it is the brown one that keeps them open”*

In this short extract from the video, the GPR stresses to the mother the necessity of treatment and uses forceful language such as ‘need’, ‘important’, ‘necessity’. During the interview, the GPR said he was worried about the child and felt he had to drive home his message as he felt the mother did not appreciate or understand the

seriousness of the situation. The mother was the recipient of information and he did not involve her in the dialogue but thought that by stressing to her the importance and necessity of the treatment that she would comply. He felt that the child's asthma was poorly controlled because the mother was not complying and therefore the way to deal with this was to reinforce to her the importance of complying.

Seven months later the same GPR showed another video of a different patient. The patient was a nine-year-old girl who had asthma, which was poorly controlled. The child had recently just been discharged from hospital. A section of the dialogue is as follows:

GPR: How is she doing now?

Mother: Ok, yeah. I think ok. We have got her medicine Ok I think.

GPR: Ok right. So what is she taking? Can you just run through it with me?

The mother does this.

GPR: I think that's sort oflet me see in the notes.....Ok, yeah Ok. It would be preferable for her to be on the brown one, becatide, regularly, but I know that you are going to say, as we have talked about it before, that you try your best. I know it is hard for her to remember and you to remember but do you think you could try?

Mother: I'll do my best. You know I know what needs to be done it is just sometimes.....

GPR: I know it's difficult and I am not wanting to force it but it is just.....you know, to keep her out of....

Mother: Yeah, yeah, I know. I know it is Ok you don't need to.....

GPR: No, I am not going to push it but it is just, so let's just try this. What we will do is we will try her on the brown as often as you can and the blue one and we will see how it goes. I know it is not easy and you are doing really well. I can imagine, you know, it is hard with everything else that is going on.

In this extract, the GPR, though dealing with a child with similar severity of asthma, has moved from stressing the point using forceful language to trying to understand where the mother is coming from and is accepting some degree of compromise in his management. He was aware of the context of the consultation. The mother is a single parent with three children and has recently been treated for depression and the GPR acknowledges that the mother has her own difficulties and that he needs to work with her to support her through this and not blame her in any way for the child's asthma. The GPR, when discussing the case, was realistic about what he could reasonably expect to achieve. He had contextualised the patient and her family and set his expectations within this context.

The importance to GPRs of contextualising the clinical problem is illustrated by the second example, which comprises extracts from one video taken at three months, and a second of the same GPR with the same patient at nine months. The patient is a 56-year-old, poorly compliant and poorly controlled diabetic who continues to smoke despite having angina.

Video consultation 1(three months)

GPR: We have run through your results and they are not very good. You know as I was saying, the blood sugar is not under control

(Patient nods "Uh ha uh ha")

GPR: It is not helped because you have continued to smoke and you know your blood pressure is up and if these things keep going you know

Patient: Yeah I think I know what you are trying to say

GPR: Well look you have really got to get a grip on this because this is serious. The level of the sugar, smoking you know it is affecting your heart and blood pressure

Patient: Uh ha

GPR: So what I am going to do is refer you to the smoking cessation clinic. I want you to come back and see me in three weeks' time to get your blood pressure checked and in between that, I want you to see the nurse and I want you to start to monitor your blood sugars at home and to start taking your tablets regularly. The other thing is - are you drinking at the moment?

Patient: Alcohol, you mean, a bit just now and again, the odd pint

GPR: Because your liver tests are a bit raised. I am just wondering if that is the diabetes or the alcohol. I mean, how well are you looking after yourself just now? Are you eating properly?

Patient: Well I am doing the, you know I am trying to

GPR: Look, it is really important with diabetes that you have a regular diet. I will need to get the dietician to see you and see if we can work this one through. You have an irregular diet, alcohol is not that good for it, you have got to look at the smoking and we have got to try and get your blood pressure ...

In the second video, the patient's diabetes is no better controlled, he is still continuing to smoke; he is still drinking, and is poorly compliant with his medication. The GPR in this consultation appears more relaxed. He has seen the patient six times over the previous eight months.

GPR: Ok, I don't know what more we can do here

Patient: Its Ok doc. I know you are doing your best

GPR: You know I said to you before that your blood pressure is a bit up, you are still smoking, and you know the risks involved and all that

Patient: Yeah, yeah, yeah

GPR: There is no real chance of you stopping, is there?

Patient: You know, I would like to think I could, but you know what it is like - you have just got so much, you know, I haven't got a job and that just now

GPR: That's Ok. It's Ok. We will do what we can. Look - just try and take the tablets when you remember and I would rather you put the real results in the book (patient laughs). What else is going on at the moment? How's your wife?

Patient: She is a lot better thanks. She is doing Ok

GPR: Well - Ok. Is she out of hospital?I've not heard

Patient: No, no. She's still - it's a real trudge up there but I think she's getting better

In the second consultation, the GPR is less focused on the patient's clinical condition and compliance. In the interview he described how he had learnt over the previous consultations to negotiate as far as he could with the patient and had reached a compromise. He knew the patient wasn't going to stop drinking or smoking and that his diabetic control would always be less than good. He had gained an understanding of the patient: he knew the patient's wife had recently been ill, the patient had lost his job and they were under a series of other financial pressures. He was able to put this in context and felt that he could only do so much to try and influence the patient's diabetic control. He described that during the first consultation, he had been very anxious and uncertain about how to proceed and felt that if the diabetes was not brought under control he would be held responsible. By the second videoed consultation he had accepted that the illness was the patient's responsibility and he had done as much as he could to convey the importance of blood pressure control, stopping smoking; stopping drinking; and eating properly. He felt that he could do little more; he still felt some degree of responsibility but felt the patient understood the risks and was making an informed choice.

For GPRs, learning to set their expectations within the context of the patient's life was important. For example, a GPR discussed a patient in October (three months into his year) who had placed frequent house calls for her child, with non-specific complaints, including that the child was not well and suffering from non-specific symptoms, such as diarrhoea and a cold. The GPR said in the first interview:

“This sort of patient really annoys me, unsettles me. It is the third house call in what, 10 days for me. One of them was for snuffles and this most recent one was because of crying a lot and unsettled. I mean the child’s notes were as thick as a 60-year-old’s and all of these calls, let me see, (there?) are almost 40 contacts we have had in the last year and that is almost five times the average for a child of her age. It is all for minor things. I mean it is a total waste of our time and I have to go back and see her again today because she has put in a call and I was there on Wednesday - it was two days ago - and I know there will be nothing wrong and I can see why patients like this really get GPs angry. How do you deal with them? I’ve no idea”.

The same GPR speaking about the same family in June (seven months later) reviewed the case of the child over the whole year:

“I followed him over the last two meetings with you. It has changed when I think back on what I have written in the notes. how I felt like that, you know, the first time I saw him and what we discussed at interview. Mum still calls a fair amount but she is worried. You know, I have had to try and understand that. She is 18, it is her first child. She lives alone, there is no boyfriend. She lives in a council estate high rise, in a dire flat with a druggie next door. She is clean and she is very caring of her kid but she has real trouble coping with life, and that one visit I remember I had been frustrated at going there. I was feeling really annoyed about being there and being called out and it was late in the evening, about half five - quarter to six and I thought ‘I just want out of there’, and that night I was telling Allison (his partner) and she said to me well at least you could leave. Imagine what it would have been like if you were living there all the time - and it sort of stopped me that because I had only been seeing her as a problem for me and had not tried to see life through her life. Once I started to do that, I tried to imagine what life must be like for an 18-year-old with no money, a kid, no real friends, socially isolated, living in a really crap place. It really helped. I am not saying that I don’t get irritated when I go but I think I understand now why, and am much more tolerant.

The Role of Heuristics in Helping GPRs Manage Uncertainty

GPRs described how they managed uncertainty by developing clinical ‘rules’ that they applied to common symptoms in general practice. Most GPRs had developed clinical rules or heuristics for common, potentially serious symptoms that were derived from their hospital experience. In general practice they learnt that symptoms had a different natural history and hospital-acquired heuristics were often

inappropriate. Through their clinical experience in general practice, informal learning network, and reading, they developed heuristics that allowed them to take clinical shortcuts and work in a time efficient manner without compromising patient care. The heuristics they developed related to common symptoms that could have potentially serious but rare outcomes, for example, chest pain, a cough, and shortness of breath. Heuristics were, for most GPRs, an important part of their strategy for managing uncertainty. GPRs who did not develop heuristics tended to err on the side of caution and described how they preferred to “be on the safe side”. Consequently they tended to investigate/refer more patients than their peers and had personal difficulty coping with the clinical workload in general practice.

The value of heuristics to GPRs is illustrated by a GPR describing his approach to chest pain at two months and then eight months.

2 months

I worry most about a patient with chest pain. I am not sure what I would do. They would need to be hospitalised, I have no doubt about that. It is not possible to manage people with chest pain in General Practice but the thing is we do not have an ECG here. There is a defibrillator but I am not confident about using it and if I have any doubt at all, I am just going to admit anyone who comes in. I have not seen anyone yet but it is one of the worries I have.

8 months

I was, I remember, anxious when I started. It was a major thing like chest pain or a collapse but I have learnt that chest pain does not in General Practice equal an MI (heart attack) and in most times it is not serious but it is common, and with a few questions you can separate it out. I used to work on the assumption that everyone who had chest pain had an MI or pulmonary embolus or something serious. Now, I have the opposite view. Most of the time it is nothing too serious unless certain symptoms are present, so when someone comes in, you can usually tell from the clinical presentation and the history whether or not this is something you should get excited about, a few questions can sort it out, particularly just asking if the patient feels ill.

Another GPR describes her concerns about managing children in general practice at two months and again at seven months.

2 months

I have not done any paediatrics since medical school and there is a lot of children in this practice. My one recurring nightmare is an ill child and I find it hard to work out what is going on with children. I tend to err on the side of safety because children go off so quickly. If I have any doubt, I tend to refer them or admit them to hospital. It's so difficult. I've seen a few children and though they've been ok, it's been a worry. I've usually ended up asking my trainer

7 months

I am more relaxed now. I have a bit of intuition, I guess because of what I have seen. You sort of know what to look for now the signs. It is not uncommon for children to be off their food, vomiting, but most of the time it settles. But it is the odd ones still, but I have learnt to ask what I think are the appropriate questions and to take note of important things so like if a mum says to me that she is not happy with her baby, then no matter what I find, I take that seriously. When I started, I wasn't really listening to what the parents said. I was fixed on what I needed to find out. Now, as far as I am concerned, worried parent equals sick child equals referral, and it is whether or not the parents worry is the most important thing.

Attitudinal Heuristics and the Adverse Effects of Hospital Training

One adverse effect of hospital training described by a number of GPRs was that they learnt to categorise and generalise about certain types of patients. These generalisations were usually negative and the patients were seen to be problematic and not worth spending time on. They can be described as attitudinal heuristics, and examples given by GPRs included: “all drunks are liars”, “all drug addicts are liars and potentially dangerous”, “patients who continue to smoke and have ischaemic heart disease are not helping themselves why should we?”, “women needing a termination of pregnancy are feckless and irresponsible when there is free contraception”, “people who self harm are not treatable”, “patients who don't use services appropriately or don't comply with treatment are a waste of time”.

In their hospital, GPRs reported that they found such heuristics were personally protective. They prevented them from getting personally involved when working in busy clinical settings. GPRs described how in hospital they had fleeting contact with patients, particularly in Accident and Emergency, Obstetrics and Gynaecology, and Medicine, and there was no continuity of care and very limited personal contact or interaction. As SHOs they tended to view patients as groups rather than individuals and this led them to adopt what they recognised in retrospect as inappropriate generalisations about patients.

In general practice, they encountered these categories of patients as individuals and got to know them. The GPRs described how, as they came to understand the patients, they felt ashamed about their previously held beliefs and assumptions. The realisation that their hospital categorisation of these patients had been crude, inappropriate, demeaning, disrespectful and that they had lacked empathy for the patient as a person, caused a number of GPRs to be angry about the effect their hospital training and experience had on them. The adoption of 'attitudinal heuristics', though protective in the hospital environment, were detrimental in general practice.

The following are examples taken from the GPR interviews:

A GPR talking about his changed attitude to patients with alcohol problems:

In A&E, drunks were a pain. Saturdays were hopeless and they came in or were brought in and they were totally unreliable and a waste of everybody's time. The unit view was the same. Everybody hated drunks and nobody had any time or sympathy for them. They were treated, looking back, with little respect. I came out of that job into General Practice and, to be frank, I was sick of drunks, drug addicts, and my view really didn't change and my view then was that they weren't worth getting involved in. That is what we had learnt in A&E. But I remember one tutorial and I expressed my view about alcoholics being unreliable and a waste of time and resources and I could see from my trainer's reaction

that he was a bit shocked about this. It must have been about two or three weeks later that I saw a 54-year-old man who my trainer had been seeing and who had an alcohol problem. My trainer had asked him to come and see me because he wasn't available on the day and the guy had had a sore knee. I had done some orthopaedics and I think my trainer had said he should consult me. I took his history and over the next couple of consultations, as I got to know him and saw (him?) in other consultations his wife, he was really struggling with his alcoholism and they were a normal family and he was making a mess of things and alcohol had really wrecked everything and (he?) was getting through it but it was hard and it really changed my view of alcoholics, you know, as wasters, because he wasn't and it was having a terrible toll on him and his family. And I remember going back to my trainer and talking about how we could try and help him and the services available. You know, I never asked my trainer but I am sure that he sent this guy to see me because of what I had said about alcoholics.

A GPR talking about patients with addiction problems:

In hospital when I was working in A&E, so much of your time is taking up by people who are - well you know - treat you like crap. They are rude, liars and occasionally physically and verbally abusive to staff, and I learnt never to trust drug addicts. You get a second sense of them, you know; they are just a bunch of chancers. I know it is a caricature but thinking like that can save a lot of time and I came into General Practice feeling like that and it was only working here and having to work with a couple of them that my views changed. Some of them still are just the pits but I have worked with one or two who have really been in dire trouble and trying to get out of it and drugs have just been damaging them and there are signs that things can change and I have got to know at least two of them pretty well and the story is really tragic and the thing is in hospital, you just never have the time and you are not really encouraged to see them as individuals - it is just what they are after

A GPR talking about her attitude to women who required a termination of pregnancy:

"A&E and gynae made me a bit harder. In gynae, in particular, I used to do the TOP (termination of pregnancy) list and once a week you would sometimes (have) of 10 or 12 women in. Some of them were girls who needed termination of pregnancies and you sort of learnt to stop feeling sorry for them. You clerk them in and push them through. I used to think that how, when there is so much free contraception available, can they let it happen. Even the nurses sort of disengaged a bit and the whole process was really impersonal and I felt like that when I came in to General Practice and it has only changed since I have had to deal with patients and refer them. It is only now that I saw how arrogant I was and how little I understood of what could happen in life. It was really dealing with a young woman, 17-year-old, in the practice who had unprotected

intercourse; she was still at school and was pregnant. She came to see me and, working through with her about referral for a termination, it was really difficult for her. It still is. I mean I am still seeing her now and that was six months ago and that still had a lasting affect on her but it opened up my eyes to the fact that - well it is much more complicated and as a doctor, you just can't make sweeping generalisations about people.

Uncertainty about the Value of General Practice

There were a few GPRs who remained uncertain about the value and purpose of medicine in society. Their uncertainty was often an effect of personal events they experienced during their training, which included personal illness - particularly psychological, complaints against them, personal difficulties, feelings of stress, or a growing disinterest in medicine as a career.

From the GPR interviews, three categories of uncertainty in this area were identified:

- a. GPRs who expressed their concerns about a career in medicine. This was linked to them being uncertain about the value of their role as a doctor
- b. GPRs who were happy with a career in medicine but less sure about a career in general practice
- c. GPRs who were committed to a career in general practice but were having difficulty coping with the extended, non-clinical roles they identified

The numbers of GPRs in each group were small but the impact on the individual GPRs was considerable. In Group (a), several GPRs decided they would to take a career break after their training, to spend time on other aspects of their lives and personal development. They expressed concern about the value and effectiveness of medicine as it was practiced. They saw it as about patching people up rather than tackling the 'real' issues effecting health which they saw as poverty, unemployment,

poor housing and a society that did not value peoples lives. They spoke about the lack of social engagement within the medical profession and felt that general practitioners and consultants had sold out and were more interested in what they could get out of the system.

In groups (b) and (c) the GPRs expressed a wish to return to hospital practice or to have time out to reflect on what specialty they wanted to work in. Both groups expressed a desire to work in a specialty that had more clearly defined clinical boundaries or a more focused role. Interestingly, the opportunity for reflection in the GPR year had, in some respects, consolidated their feelings and had helped them reconsider their future plans.

The Learning Outcomes of the Individual Curriculum and the Effect on the Way GPRs Practised Medicine

The individual curriculum changed the way GPRs approached not only their learning but also their practice of medicine. In particular, from the interviews, four main changes in their practice of medicine were identified. These were:

- 1) Management planning:** They moved from concentrating on trying always to making a diagnosis in patho-physiological terms to providing diagnostic descriptions and holistic management planning where the management plan and diagnosis were constructed around the disease or illness process but were placed in the context of the patient and how the patient interprets or understands their symptoms, for example, in the patient with hyperthyroidism and the teenager with diabetes.

(2) Specifically diagnose only what is treatable in general practice: GPRs described that one of the most important questions they learnt to ask themselves was: *Is this a condition or symptom or series of signs that I recognise I can treat in general practice or not?* If it was something they could treat in general practice, then they had to make a specific diagnosis. If it was not something they could treat in general practice, but something they had to refer on or admit to hospital, then they did not need to make a specific diagnosis but their main task then became referral to hospital or to other professionals more skilled in managing the symptoms or illness.

(3) Learning to work in partnership with patients: By this they meant respecting the patient's autonomy and having the confidence to share knowledge, share their thinking and their diagnostic hypotheses with patients, begin to plan the management with the patient, and to negotiate a way forward. From the interviews, this was identified as a late skill and was dependent on the GPR being comfortable in areas (1) and (2) above. Those GPRs who acquired this felt confident about general practice and their patient management. The shift from doctor responsibility to a shared responsibility with the patient had an important effect on the GPRs. Illnesses, diseases, symptoms and problems were not carried by them but externalised and dealt with jointly with the patient. GPRs who achieved this described their job as not necessarily having to solve patient problems but rather having to clarify the issue with the patient and then present a series of possible options from which the patient could then choose. They talked about this as a process of letting go. In the early months and during their hospital training, they described how they had felt paternal towards patients and saw it as

their responsibility to carry and solve problems. This was often a source of stress to them because many of the problems were ill-defined and difficult to solve. However, when they moved to working with patients as partners and sought clarification with the patient and agreement on the future management, they described how they found the whole process much less stressful. Sometimes it made the consultation prolonged and more complex but it had the effect of relieving the GPR from feeling responsible. This allowed them to feel less responsible about what happened to patients who had poor compliance or control of symptoms, if this had been acknowledged by the patient and shared with them.

GPRs still felt that it was their responsibility to advise the patient because of their understanding of the evidence of the effectiveness of treatments or management options. But ultimately, they saw it as the patient's choice. As one GPR said:

"I can only really show a patient what is available. It is their choice as to which way to go. Because nothing is really absolute. There are certain things where I would take a line but in the main you sometimes have to give a bit in the short term to win a patient round in the long term".

(4) Treat people as individuals: As the year progressed, when GPRs discussed problems or issues they referred increasingly to individual patients and often provided physical descriptions of the patients and details of their personal histories. Sometimes they made direct reference to the clinical records or showed video clips of consultations to illustrate their point. There was a notable change over the interviews in how they talked about patients. Initially, they described patients as cases in a standard medical format but as the interviews developed, they talked more of people rather than cases. For example, early on they referred to 'a case of diabetes' but later to 'Mrs P who has diabetes'. They talked in person-specific terms rather than disease-specific terms and began to make

clinical decisions based on what they felt was right for that particular patient at that time. As they became confident in their management of a particular illness or disease, they identified their individual learning needs around particular patients with that condition. For instance, as one GPR said, *“Diabetes is not that difficult to manage in general practice. I have had a fair bit of experience in hospital but I have two diabetic patients who are difficult”*. The focus of their individual learning moved during the year from asking ‘How do I manage condition X?’ To ‘How do I manage Mr A with condition X?’ This was a crucial shift identified in the individual curriculum. They became much more concerned with individual patient problems and individual solutions to those problems.

In summary, the individual curriculum and in particular the epiphanies had an important and lasting effect on GPR learning and clinical practice which included:

- Learning how to manage epiphanies and seeking solutions to clinical problems through professional dialogue
- Developing strategies for managing personal and clinical uncertainty
- The socialisation of GPR learning, and GPRs beginning to view general practice as a learning culture
- Viewing their learning as being experientially determined and built around ‘real life problems’
- Learning to work in partnership with patients and having an individual focus to patient care
- Constructing new medical knowledge and skills around specific illnesses, for example the attitudinal heuristics

- Discovering new ways of contextualising their medical knowledge and skills, for example by constructing new heuristics or management plans

The Hidden Curriculum

The Structure of the hidden curriculum

The hidden curriculum was linked into the individual curriculum; it was a private and personal curriculum, which was identified by GPRs from about three months onwards. As described, the experiences GPRs had in the individual curriculum were such that they found the need to engage with and seek guidance from other general practitioners and staff in the practice. This involved them in a process of socially engaging with the practice as a living community. Through this engagement, they learnt about the culture of their training practice and of general practice as a branch of medicine. They described the hidden curriculum in terms of what was seen and heard rather than what was taught. The lessons they derived were formed from their impressions, feelings and experiences of being immersed in general practice. The hidden curriculum was structured around;

- The GPRs day-to-day lived experiences of general practice, the anecdotes and stories they heard from general practitioners and staff, and the observations they made.
- The formal structure, processes (the rules, regulations and rituals) and organisation of general practice and training.
- The informal networks and contacts GPRs had with each other, often developed around the formal teaching programme.

The Content of the Hidden Curriculum

This was important because through it the GPRs learnt about the reality of being a general practitioner as well as the culture and values of general practice. The content was practice-specific but it also covered general issues relevant to general practice and medicine. The content for individual GPRs was private and only discussed in the interviews and even then mainly in the later interviews. The content was derived from the personal observations and happenings which were, by their nature, often anecdotal but they left a powerful emotional impression which was not amenable to reason and consequently became difficult to shift. There were four main content areas:

1) Information about training practices.

In the interviews, the GPRs discussed how within the GPR community each training practice had a history and was rated by GPRs according to the previous GPRs' experience and this influenced how they viewed it and interpreted what they heard about it, and the general practitioners who worked there. This rating was informal and often differed from the formal assessment of the practice as a training practice or the standing of the practice in the local general practice community. Within it, each training practice carried stories that defined its culture and its worth as a training environment. For example, opinions and descriptions of training practices were as follows: *'hard working, with a good feeling of being in it together and everyone is very supportive'*, *'a good place to go to pass the exam, its quiet and you get a lot of free time'*, *'committed to working in a socially deprived area'*, *'good fun with a good set of partners'*, *'not academic but more focused on making money'*, *'unfriendly with a lot of infighting'*, *'a good trainer but no one else helps out'*, *'useless for training all they want is an extra pair of hands and the GPR is used as a locum'*. Such informal descriptions played an important part when GPRs were deciding what training

practice to apply to, and were common currency in the GPR group and passed onto other potential GPRs. It explained why one practice could have multiple applicants but another, with a similar deanery accreditation, could lie fallow for several years.

2) Stories or Moral Tales

GPRs described most of their experiences in the hidden curriculum and justified the lessons they derived from it through stories. The stories were either personal or ones they heard from other GPRs or general practitioners. From these they drew generalisations about general practice and even though in the interviews they acknowledged that many of the stories were anecdotal, they firmly held to the lessons they learnt. The majority of the stories were either of practical value or were cautionary tales. The following are two examples:

“One morning in the coffee room one of the partners was talking about a girl he’d seen who was vomiting and asked if anyone else had seen someone with vomiting – he was thinking there might be something going around – nobody had but one of the partners asked if he had checked to make sure she wasn’t pregnant. He said he hadn’t but thought it really unlikely as he knew her and her family really well. It turned out she was pregnant – she’d come back and saw someone else who had done a pregnancy test which was positive and I thought ‘I will never forget that one’.”

“My trainer told me about a friend of his who is a GP and who is facing a complaint from a patient. It is a long story but he told me when we were driving to a meeting at the local postgrad centre. It was obviously troubling him a lot. His friend had gone to see the patient at home without her notes and forgot to write in them when he returned to the surgery and unknown to him the patient got worse and had to be sent into hospital and she died a few days later. The family are now complaining about what happened and though my trainer says he did Ok, there is nothing in the records to say what he did and he will be in trouble if they pursue the complaint. I remember as we stopped at the postgrad centre he turned off the engine and said to me ‘always check the notes of your home visits or have someone do it for you and always write in the notes’. He was really serious about it.

GPRs commented that in general practice, behaviours and clinical actions were often underpinned by a significant event that a general practitioner or practice had, and that these were more powerful in shaping future actions than published research or policies, and the way things (procedures, protocols etc) functioned in a practice were usually explained by a cautionary tale rather than by evidence. GPRs believed that unlike in hospital medicine, activities in general practice are constructed around numerous personal and collective meaningful experiences rather than clinical evidence. Through this they began to understand and accept the variations they heard about and observed in and between general practices. For example, one GPR described how in his Practice (a small rural Practice) none of the three general practitioners prescribed a certain drug, even though it is commonly prescribed elsewhere and is of proven value:

“When I asked why we did not use it even though it was on the formulae, I was told by the practice manager that three years ago the local headmaster of the primary school had been given it and had reacted to it and died. He was really popular around here and it was such a catastrophe that the partners decided never to use it again and that was it and it was not up for discussion!”

Another GPR described how in his surgery the senior partner finished his morning surgery thirty minutes before the others and sat down and checked all the incoming mail and then allocated it to the others for action:

“When I asked about this, which I thought a bit unusual, I was told that a few years back a patient’s result had been missed and they had been admitted to hospital but survived and there was an enquiry and a big fuss by the family so after that Dr G decided that he’d have to check everything himself and he still does!”

The GPRs described such ‘rituals’ in practice were usually the outcome of an earlier ‘event’ and embedded in the working culture of the practice. They came to understand the practice and how and why it did things the way it did in terms of the history and

experience of the practice rather than in terms of the best evidence or the most efficient way to achieve something. Through these experiences, they developed a working concept of general practice which was one of separate organisations, each with its unique history, 'rituals' and 'ways of working'.

3) The Living Reality of being a General Practitioner

Through their immersion in practice, GPRs developed a concept of what they thought of as a 'good' general practitioner. This was based on what they experienced and heard about the values and attributes that mattered to general practitioner and that they looked for in a potential colleague or new partner. These attributes they identified as: being dedicated and committed to the practice, clinically astute, hard-working, putting patients first, empathetic, available and helps out when needed, good company and a team player. These differed from those that were recognised in the official/assessment curriculum and GPRs found out that academic achievement did not necessarily equate with gaining a partnership at the end of training. They learnt that when general practitioners are considering appointing a new partner, they give preference to GPRs who are able to manage a workload, are compatible, and have common or shared interests over academic success. GPRs discovered that to make themselves employable they had to demonstrate these attributes while in their training practice because few partnerships are openly advertised and there is an informal network and communication between practices about potential partners and their suitability. GPRs realised through the hidden curriculum that in particular they needed to impress their trainer if they wanted a good recommendation, and this was why they were keen to meet the demands their trainer required of them from month eight onwards.

Moreover, they learnt that general practice is a small community and that unfavourable reputations are easily acquired and, like their experience of practice rituals, are often based on stories or anecdotes that are difficult to influence or change. Learning that there is a difference between 'success' in their training as judged by the RCGP or Deanery and being seen as a desirable partner was an important lesson that GPRs acquired from the hidden curriculum.

Through the hidden curriculum they were exposed to different role models and this had an important effect on their personal definition and concept of their professional 'self' – of the type of general practitioner they aspired to be. In particular, they learnt that general practitioners have a 'moral authority' in the NHS and this is derived from their immediate and continuing contact with patients, which other health care staff, particularly those in management in the NHS, respect and defer to. This moral authority was an important source of power and was used by some general practitioners to achieve change or obtain resources in the NHS.

The workplace environment was critical in shaping their views about life as a general practitioner. Through informal coffee-room discussions and hearing or observing general practitioners behaviours in the surgery, many GPRs developed negative views about the working environment and a future career in general practice. This caused a number to reconsider their career choice and to hesitate before going into general practice. A number of GPRs did not intend to work full-time as they observed this to be too stressful and demanding. They described life as a general practitioner as busy, chaotic, stressful, and felt it focused on finding practical, time-efficient solutions

which were sometimes medically inappropriate to the problems at hand. For example,

Dr AB describes one partner's attitude to prescribing antibiotics for URTI:

He was straight with me and said, 'Look, I know most are viral, but so what? I have 10 minutes per patient, normally running late, and some patients can't or don't want to understand the difference between a virus and a bacteria, so why bother? If I'm tired, pushed for time or they demand it, then I'll give them penicillin. Where is the harm in it? Most of the time they never take it anyway'.

In a second example, Dr PT describes what he viewed as further inappropriate prescribing:

What's interesting is that we have a lot of psychosocial morbidity here – it's a tough place to live and a couple of the partners give out Diazepam (valium,) even though they admit it's inappropriate, but their point is – 'Well why not when there is little else we can do? It doesn't change things but it makes the patient feel a bit better for a while'. Even though they know the risks of dependency, they do care about the patients, but it is a balance. They haven't got time to deal with the roots of the problem.

GPRs felt that too little emphasis was given to the workplace environment when assessing a training practice, and for them it had a deep effect on their view of their future career in general practice and influenced their decision as to whether or not to go into general practice.

4) Professionalism and values

From their experiences in the hidden curriculum, GPRs defined a concept of professionalism in general practice, which they believed underpinned their professional work. Much of this they held implicitly, and it was rarely discussed in their formal teaching. It included the following:

- Having ethical principles that governed or directed the doctor's actions. These were: doing no harm, acting in the patient's best interest, being just and fair, not being prejudicial, respecting the patient's wishes and their dignity, and working within a legal and ethical framework
- Taking responsibility for their own actions and carrying that responsibility wherever it led and not expecting others to bail you out
- Taking responsibility for setting and maintaining clinical standards and standards of behaviour, as well as acting when colleagues fell short of these; for example, underperforming staff, sick doctors or inappropriate behaviour
- A commitment to life-long learning and continuing professional development
- Demonstrating respect for staff and health professionals, being able to work with them, and developing a team approach to healthcare
- Taking a wide view of society and their professional responsibilities within it, as well as being altruistic in their actions

These values were learnt through their day-to-day work and were consolidated by reflecting on the actions of others and the work-based experiences they had. They were acquired through personal experience, observation, listening and by 'being there'. Most GPRs felt that general practitioners held to these values and that those who did not were not respected by their colleagues. For example, they gave instances of where in another surgery it was known that a general practitioner was drinking or underperforming and the partners were not doing anything about it. They were thus held in low regard, whereas those who tackled problems, no matter how difficult or unpleasant, for example dealing with a partner's drinking, were admired and respected for their honesty and personal integrity.

GPRs commented that their values often clashed with the reality of practice, particularly where patients could be obnoxious, vengeful, unreasonable, rude, physically or verbally abusive, or where resources were limited and decisions had to be made about allocation and priority. Also, work load and work rate meant that general practitioners did not have the time or they had other priorities, The GPRs also commented on situations where, for example, team-working was difficult because general practitioners were expected to take responsibility and other members of the team were line-managed and unwilling to share risks. They described circumstances where work pressures led good, caring general practitioners to become unwell and stressed and how there was limited support for them. In many instances the general practitioners were underperforming and had become what were considered to be unsafe doctors. Nevertheless, they were allowed to continue working because no one acted or no one was willing to act, and professional organisations such as the British Medical Association and Medical Defence Union were seen as supporting unacceptable practice.

The hidden curriculum brought conflicts between the professional and personal values and their perceived and experienced working reality into focus. These included issues such as conflict between personal values, for example honesty with a patient, versus self-protection; personal gain and altruism; self interest and patient care; illness in a colleague and conflict with the needs of the work place; Other conflicting situations included those where observed behaviours of general practitioners were at variance with the behaviours they taught; and where equality of patient access and an implicit hierarchy of patients often related to the patient's social class, and this resulted in favouritism towards certain types of patients. During the interview process, these

conflicts produced different responses by GPRs, which could be broadly split into three categories:

- The largest group were those who accepted pragmatically that their ideals had to be sacrificed and that 'that was life'. At the end of the day, for them it was a balance: one did what one could and although it was a constant battle to maintain professional integrity, it was worth fighting for. They believed in general practice and that the values that the profession adhered to were worth fighting for, irrespective of the consequences, but that inevitably, in a managed health care system, they would need to make compromises.
- There were those who had difficulty with compromising their ideals and who became increasingly unhappy and anxious about the enforced compromises which they felt they should not be expected to undertake. They felt personally vulnerable and uncomfortable and could not accept the pragmatic view. A number of these GPRs commented that the gulf between how their practice should be and how they will have to practise was too great to bridge and they were thinking about leaving general practice.
- A smaller group were cynical of professional values and saw general practice as a job not as a vocation. They were willing to work with it as long as it provided what they needed and would do what they could within the system but no more as they did not feel they owed the system anything. They felt that the problems that the system threw up were someone else's and were largely political. They expressed doubt about the professional values, the whole concept of self-regulation, and stated that they would rather be paid well to do a job and to leave it at that.

The Processes of the Hidden Curriculum

The processes of the hidden curriculum are embedded in and related to the content.

They are informal and varied from GPR to GPR. The most consistent processes were:

- The GPR's immersion in the working environment of the practice and observing and being part of the informal communication process within it.
For example, interacting in the coffee room and reception area and having informal discussions with partners when doing shared tasks, e.g. repeat prescribing, etc.
- The GPR's informal networks with the partners and other staff both within the training practice and with colleagues external to it.
- The formal meetings in the practice, including tutorials as well as practice/partners meetings outside, such as going to postgrad meetings
- The informal meetings with other GPRs before and after HDR and at social events they collectively organised

GPRs described how on occasion in the workplace they felt almost invisible, particularly in the formal partners meetings, and through this they gained insight into the interpersonal relationships and dynamics of the partnership. As one GPR said:

"I was sometimes like wallpaper in the coffee room. The others would start having a discussion about something and being like critical of other GPs or the hospital or the state of the NHS, and it was like - they forgot I was there. I had never experienced that before, I mean the closeness being so in there when - like actual senior GPs were talking about what it was like for them and I would just soak it in. I learnt a lot about the pressures of working in General Practice - the problems - and I am sure it has affected what I will do next"

The Outcomes of the Hidden Curriculum

Whereas the individual curriculum shaped and influenced the GPRs' learning and approach to clinical practice, the hidden curriculum influenced their views about the professional values, the actual working life and their future career in general practice. They felt they had a clearer view of what would be expected of them as partners, what attributes and values general practitioners consider important in a new partner, and how to get a job.

In the final interviews, the majority of the GPRs expressed a mixed opinion of a career in general practice. They enjoyed their training and the supported learning and clinical practice but they were less enthusiastic about what they had seen of the working reality of being a general practitioner. They worried that because general practice was busy and personally demanding, it was possible that as a new partner they would not be supported and in particular they were not convinced that partnerships were always supportive and functioning working environments. They worried about making a long-term commitment or joining a dysfunctional partnership because through the hidden curriculum they had learnt that it takes time to find out what a practice is really like to work in. The hidden curriculum, by exposing them to the working reality of general practice, made most hesitate about going straight into general practice after their training, as the following quotes illustrate:

Dr RR:

R: I feel ok about GP. I could cope ok and I will do locums for the next year or so. I am ok about doing that but as for being a partner, I am not ready for it yet. There is too many other things bound up to being a partner that I am just not comfortable with.

I: Why is that?

R: Being a partner seems much more not only to do with the patients and really carrying a patient's load and all that goes with it, but you have everything else in the type of stuff that I really avoided as a registrar - you know, the staff problems, the partner problems, running a business, dealing with the Health Board. It is a huge job - all I saw watching them, I mean, it is not only hard work but it is sort of dull and unpleasant work and I just don't know if I am ready for it.

Dr AR:

R: I don't regret doing the GPR year but I do miss hospital and I really don't know if I am going to settle as a GP.

I: What do you mean you miss hospital and you don't know if you are going to settle as a GP?

R: I went into hospital medicine because I was interested in the intellectual challenge of medicine. I still, don't get me wrong, enjoy seeing patients but I enjoyed the theoretical challenge as well and I got that in hospital and I got that in my job, so you get really quite complex cases to work upon, complex issues, people to work with - you could debate it and it was an intellectual challenge in much of what I did in hospital. Towards the end, trying to match that up with having a family was just too much but it is not the same intellectual challenge in General Practice. There are difficulties and there are difficult people but the problems they have are much less - how can I put it? - Solvable. You know, many of them are intractable and they are emotional or social rather than intellectual problems. I am much happier trying to work out why someone has these symptoms with these blood results rather than, if I am honest, trying to help them cope with their life. I know that sounds hard but it is honest as well. I really haven't found General Practice all that challenging and I despair sometimes when I see the sort of lack of evidence that some of the doctors apply to their clinical practice, like prescribing and referrals. It is not an intellectually rigorous environment. It is like running a shop - all the business and staff hassle.'

Dr ED

R: I am going to be doing locums for a while. I think I will enjoy that, clinical work with no responsibilities. The partners here are all jealous of me doing it and say things like, 'If I could afford it, I would give up all the other crap and do the same as you'. I quite fancy doing work in different areas. I have worked mainly in the city and it would be really good to get out and do some locum work elsewhere.

I: What is it that attracts you about doing locum work as opposed to taking up a principal's post?

R: I have so little experience of General Practice. I have only been in here and it's a good place to work but I am sure that they are not all like here and I wouldn't know what, if I was going for a job, what I would be looking for and I am really worried that I would make the wrong choice

and once you are in, it is really difficult, I think, to get out. I would like to do some work elsewhere; you know - work in a rural area. I have got no ties at the moment so I can afford to go where I want.

I: What would make you take up a GP post? What would have to happen?

R: Well I don't know really. I think the one thing that would make a difference would be if I knew I wasn't going to feel isolated and that I could get help and support in managing some of the difficulties I was going to face and that's what is going to have to be outwith the practice. You know, I have got friends I could rely on but I would need something more formal, some people I could talk to. A bit like at the moment - you know - if I get into difficulties, I have still got my trainer to talk to. It would be good to have that but I can't really see that happening. There are so many bits of it I feel unprepared for and I got the feeling that many of the partners were unhappy in their work; sort of ground down by it. My feeling is that it was a good place to learn but not somewhere I would really want to work long-term.

Summary of the Inter-relations and Impact of the Four Curricula on

GPR Learning.

The four curricula each had both an individual and a collective influence on how the learning of GPRs changed over the course of their year in general practice. In the final interview GPRs were asked to reflect on how their learning and approach to medicine had changed over the course of their year in general practice and to try and identify the cause(s) or main influence(s) on the change. The changes in learning outcomes and behaviours and the curricular influences identified by the GPRs are summarised in Table 2. The learning process was dynamic, with different curricula being dominant at different times, as well as influencing, directing and supporting GPR learning throughout the year. For the GPR, the formal curriculum was dominant in the first month; this gave way to the individual curriculum, which was pre-eminent through until month eight, when the assessment curriculum dominated until about month eleven. The hidden curriculum developed from around month four and was

influential throughout but particularly in the final months when, with the individual curriculum, it shaped the GPR's future career plans.

All four curricula developed within an educational climate that was dependent on the trainer and the framework applied from the formal curriculum. The trainer was critical in holding the GPR's learning together throughout the year and in providing a safe learning environment and the necessary reflective support to allow it to develop and flourish.

Table 2: Changes in Learning Outcomes and Behaviours and the Curricular Influences identified by the GPRs in both cohorts (numbers of GPRs in brackets).

GPRs perception of themselves before General Practice Year	Changes identified by GPRs toward end of General Practice Year	Which Curricula GPRs felt had influenced the change and their Learning
Limited understanding of the values and living reality of General Practice	Can articulate professional values, aware of the realities of life as a GP and has a clearer view of career intentions. (42)	Hidden through their observations of day-to-day life in practice
Marginalised learners who rarely felt they belonged in hospital because of the nature of their jobs and the environment	Member of a learning community in practice and membership of RCGP and GP community (36)	Individual through epiphanies Hidden through integration into practice and adoption of professional values Formal through release course Assessment through self-directed study groups
Passive learners who did what others expected or needed them to do. Learning driven by external factors e.g. examinations	Active self-directed learner learning driven by patient experiences and their own needs (33)	Individual through patient contact and epiphanies
Mainly Doctor-centred, focused on their activity, needs and outcomes during patient consultations	Their values and beliefs about the doctor/patient relationship challenged. Becoming patient-centred (32)	Individual through patient contact Formal through tutorials and release course
Saw teachers as experts, accepted how their training and learning was organised	Critical of the effects of the institutions of medicine (hospital and medical school) on their professional development, methods of teaching and approach to clinical practice. Views trainer as expert colleague. Feels responsibility for own professional development. (32)	Hidden and Individual through the experiences they had in daily practice
Professionally cocooned: narrow concept of roles and responsibilities	Aware of social responsibilities of role as a doctor and general practitioner (30)	Individual through patient experiences Hidden through role modelling and exposure to living practice
Working in a hierarchy rather than a community of learning. Rarely reflective as this was not valued. Rarely self-critical and was not open with others	More reflective, self-critical and self-aware, member of a learning community with established learning network (29)	Individual through epiphanies and patient-based experience Assessment through self-directed study groups
Saw medical knowledge as factual which was disease-focused and not patient-specific	Sees medical knowledge in terms of probabilities as well as facts. Now views medicine as symptoms or illness experience rather than disease. (26)	Individual through epiphanies and patient experience Assessment through critical reading and appraisal of the medical literature
Disillusioned about value of learning in medicine and did not readily link day-to-day work with learning	Re-invigorated value medicine and the role of the doctor and their learning is focused on their personal and patient needs (24)	Individual through their patient contact and relationship with trainer Assessment through critical reading and video consultations
Hospital jobs left them occasionally isolated. Tended to learn alone and focussed on textbooks	Values personal experience and evidence and is thoughtful about conclusions and values others' stories. Has a need to learn and develop with others (21)	Individual through epiphanies Assessment through video consultations Formal through trainer tutorials and release course
Tended to think in general about subjects and knowledge.	Tend to think in context-specific rather than general ways (18)	Individual through epiphanies and trainer discussion Assessment through video consultations
Perception of being self confident (possibly even arrogant) prior to GPR year	Feeling more self assured, personally reliant but also having more personal insight (14)	Assessment through video and critical appraisal Individual through patient contact epiphanies and personal uncertainty and self-reflection

CHAPTER FIVE

DISCUSSION

Introduction

This study has documented the learning experiences of GPRs during their year in general practice and has generated rich and informative data that captured the emotional investment of individual GPRs. The results of this study are in part consistent with the published literature and in part add new interpretations which challenge existing assumptions and have policy implications for the future direction of GPR training. In this section, I will review the methodology, assess the results, and examine their implications for the future policy of training for general practice.

Review of the Methodology

The methodology was derived from Denzin's concept of Interpretivism, which places value on the expressed lived experience of individuals and is constructed around their stories and epiphanies. The central tenet is that individual experience is meaningful and contextually constructed around the biography of the subject. Moreover, it involves the researcher immersing him/herself as far as possible within the subject's world and, jointly with the subject, interpreting and constructing meaning out of the subject's experience. The use of thick description and in-depth open interviews over time, combined with on-going thematic analysis allowed for the generation and interpretation of a number of major themes. The use of thick description was invaluable in generating an understanding of the learning experiences of GPRs and in

documenting the temporal effects of these experiences over the course of their year. The use of two separate cohorts confirmed the major themes to be consistent over time.

No other published studies on the GPR year have either been conducted over such a long time-frame or have used a single interviewer. The process of immersion provided the researcher with access to the learning experiences of GPRs. In addition, the contact between the researcher and subject extended outside the research protocol, with 12 GPRs requesting meetings to discuss professional issues. Finally, the study confirms the findings of Scallon *et al* (2002) who reported that the GPRs in their study found the research process beneficial.

Validity of Interview Data

Silverman (2001) has identified a number of possible confounders that he argues can limit the validity of interview data. The concept of bias and confounders arises within the positivist paradigm, in which the researcher is in pursuit of objective truth and can both wittingly and unwittingly introduce bias into the research process and distort or limit the validity of the data.

Though not working in a positivist paradigm I was aware of introducing possible bias and sought to address the issues raised by Silverman. He identifies five possible sources of bias which I have listed in Table 3, along with my comments in relation to this study.

Table 3. Sources of Bias and Corresponding Comments

Source of Bias	Comment
Respondents having different interactional roles from the interviewer	This is particularly so in this study. The power imbalance is evident, whereby the researcher had a role both as researcher and Director of Postgraduate General Practice Education while the GP registrars had roles both as GPRs and subjects. There was therefore a potential for confusion and power imbalance between the varying roles. This was evident in the pilot phase and the subsequent agreement with the GPRs. Thus, the establishment of the research rules was important
Problem of self presentation of interviewee and interviewer	GPRs, one could argue, may have tried to represent themselves in a way that would make them appear professionally respectable to the researcher, and they behaved how they felt they should rather than as themselves.
Problem of volatile and fleeting relationships	The relationship between interviewer and interviewee progressed over one year and, I would contend, was substantial and invested with meaning by both the interviewee and researcher
Difficulty of penetrating private worlds	This is a problem that the researcher faced. Private worlds are difficult to access and the interviewer relied on the stories and the use of mediating artefacts provided by the participants as a representation of that world
Context of interview	This was at the place and choice of the GPR - usually their place of work and on their terms, but it still identified the GPR as a doctor-in-training and identified them in their role.

The data from the interviews has to be interpreted within a world view that values and believes in human experience, feeling and memory. As a doctor I had no difficulty with this concept as it is part of the medical paradigm.

The Limitations of Focus Groups

The focus groups provided data that was less personalised and they did not permit as detailed exploration of personal issues as the interviews. In several of the GPR groups there was a sense that GPRs were providing 'expected' responses rather than the

actual responses to the issues under discussion. This was identified by several GPRs who, when challenged in the interviews that their views differed from those expressed by the focus groups, stated that they had modified their views in the presence of their peers and provided what they thought were expected responses to such issues as hospital experience and assessments that GPRs should give. The study identified that as a method, GPR focus groups have limitations that are not readily acknowledged in the literature. These include:

- They do not easily allow for the generation of individual epiphanies or stories by GPRs
- They do not allow for the development of a sustained relationship between the researcher and the subject
- It is difficult to explore individual themes in depth, particularly if these are emotionally laden
- The voice of individual GPRs can be lost
- GPRs sometimes provide expected rather than actual views

Moreover, in the literature there is an over-reliance on focus groups for generating data about the learning experiences of GPRs (Dixon 2003, Percy and Dale 2002, Scallon *et al* 2002).

The data from the trainer focus groups is subject to the same limitations but it did allow for the emergence of an understanding of the trainers' beliefs. The trainers had more experience and working knowledge of each other and had previously worked in small groups. Consequently, their focus groups contained more open discussion. The trainer focus groups were of value in the following ways:

- Exploring their views and discussing the emergent themes from the GPR interviews, such as curricula, learning environment, etc.
- They assisted the researcher in his interpretation of the emerging themes.
- They involving the trainers in the research process.

How GPRs Learn

This study found that GPRs learn through clinical experience and in particular, through epiphanies. There is acknowledgement in the literature of the importance of 'critical events' in continuing professional development in medicine but the importance of epiphanies on GPR learning has not been previously described (Pringle *et al* 1995, Robinson *et al* 1995, Sweeney *et al* 2000, Westcott *et al* 2000)

Through epiphanies, GPRs learnt about clinical and non-clinical issues and realised the breadth of their professional responsibilities and their wider role as a general practitioner in society. This was a crucial shift in their professional development and the role of epiphanies and how they are dealt with and managed has not been previously described in the literature. The results illustrate the important role of the trainer in this process in encouraging meaningful reflection on the epiphany through a process that was both supportive of the GPR and yet challenged their professional values and clinical practice. Furthermore, the learning environment created by the trainer allowed the GPR both to reflect on the event and then apply the lessons in subsequent clinical encounters (Smith 2004). This process of reflection and experimentation followed by further reflection is similar to that described by others including Coles (1994), Khanchandini (2003), Neighbour (2000) and Tate (2004).

For GPRs an important part of the learning cycle was being given permission to try again in real practice and to reconstruct what they had learnt into practical action. Epiphanies had a powerful emotional impact, which produced internal dissonance within the GPRs and this resulted in the GPRs needing to talk about and talk through the experience. This led them to develop a social dimension to their learning and they engaged with other members of the practice to understand and interpret the experience and their feelings. This process of socialisation was important because of the effect it had on GPRs, which included immersing themselves in the practice as a learning community; seeking solutions to difficulties and problems through open and reflective dialogue with others; valuing the 'organisational memory' of the practice; and finally, understanding the power of narrative and stories in influencing clinical behaviour in general practice (Ballint 1957, Greenhaugh 2000 Neighbour 2000).

The process of socialisation could be an explanation for the important difference described in the literature between GPRs' attitude to learning in hospital (where they have clinical experience and epiphanies) and general practice. The learning environment of the former is characterised by a lack of feedback and limited educational supervision and appraisal which would make it difficult for GPRs to critically engage in learning. Thus, they would remain passive learners who formed defensive responses to any epiphanies (Hand 2000, Hand *et al* 2003). Undoing the defensive learning practices acquired in hospital, for example the attitudinal heuristics, was part of the learning process in general practice and could only occur in a safe learning environment. It is interesting to speculate that some of the initial unease and suspicion GPRs felt about taking part in this study, which was based in the

use of the data and trust, may have been a reflection of their experience in hospital and of the lack of engagement between trainee and trainer.

The Translation of Learning into Clinical Practice

Another important finding was that GPRs translated their learning into changes in the way they practiced medicine. This process has not been previously described in the literature. This study demonstrated how this occurred, with the GPR's initial experience being modified by guided reflection and then applied in practice, followed by a period of further reflection and refinement based on the outcome. This cycle of action is similar to that described by Khanchandani (2003). The main changes in clinical practice identified by the GPRs demonstrated how they integrated their learning into their clinical work. Their focus on managing uncertainty, adopting a patient-centred approach to care, and working in partnership with patients were fundamental shifts in their clinical practice, which have not been previously described. GPRs acquired new skills in diagnostic formulation and in contextualising their medical practice and clinical decision-making, all of which contributed to the development of a patient-centred approach to medicine (Tate 2004).

This study provides a detailed description of how GPRs learn and the crucial importance of epiphanies and reflection in this process. Furthermore, the emotional power of the epiphanies forced GPRs to socially engage with their learning and move from being passive to active learners who sought practical knowledge from others to resolve real life problems (Coles (2002).

The GPR Year and the Curriculum for Training for General Practice

There is debate in the literature about whether the curriculum for general practice training should be a curriculum delivered as ‘product’ that is linked to vocationalism and to producing GPR’s who are ‘fit for purpose’ (Donaldson 2002, DoH 2003a/b, JCPTGP 2002) or a curriculum delivered as a ‘process’ (Cole 1994, 2001, Cole and Pitts 2003, Neighbour 1999). At the heart of this debate is a tension about who should control training for general practice – the trainers and GPRs (process) or the regulatory authorities (product). The present policy direction is towards curriculum as a product through competency-based training (DOH 2003a/b).

The results of this study indicate a need for both: curriculum as a product (formal and assessment curriculum) and curriculum as a process (individual and hidden). GPRs and trainers are not primarily concerned with curriculum as a product but with a training process that allows GPRs to become capable general practitioners. The language of curriculum as a product, including objectives, aims and competencies, is not one with which trainers of GPRs easily identify. In previous studies (Field 2004, Marinker 1997, Taylor 2001, Toon *et al* 1997, van Zwanenberg 2003), trainers consistently state that they view themselves as responsible for their individual GPR acquiring the skills, knowledge and attitudes to work in general practice, and this study shows that they achieve this by constructing a trainee-centred curriculum which is based on the GPR’s biography, personal needs, professional requirements and clinical experiences. This process is dynamic, creative and personally-focused. Trainers are concerned with the GPRs developing meta-skills such as communication, team working, clinical judgement, managing uncertainty and time management, and with what Coles (2002) termed ‘practical reasoning’. Such a model of training can sit

uneasily with regulatory bodies (RCGP, JCPTGP, PMETB), which view the curriculum increasingly as a product and have attempted or are attempting to define the competencies that every GPR must demonstrate to meet public and societal requirements. Trainers view this approach as essentially devaluing their roles and believe it is not one that is consistent with the concept of training individual GPR's for actual general practice (Swanwick 2004). As Stenhouse (1975) identified, there can be tension between a process and a product approach to curriculum, particularly around assessment:

“It can never be directed towards an examination as an objective without loss of quality, since the standards of the examination then override the standards immanent in the subject. This does not mean that students taught on the process model cannot be examined, but it does mean that the examinations must be taken in their stride as they pursue other aspirations” (p95).

The culture of general practice is of an individually-focused clinical discipline and it defines itself in terms of the individual doctor/patient interaction (McWhinney 1996). It should therefore be of little surprise that most of the proponents of a process model of curriculum also are strong advocates of a patient-centred approach in general practice (Coles 2002, COGPED 2004, Neighbour 2002).

The results of this study indicate that the general practice training curriculum has developed within a learning environment that is in part defined by uncertainty and a lack of opportunity to plan a linear education/learning programme because training is about dealing with what actually happens to a GPR and what they experience. The curriculum process had developed within and been built around this. This study clearly describes the importance of the individual curriculum, which crucially requires to develop within a suitable learning environment that is defined and supported by the

formal curriculum. Furthermore, GPRs acquired three important skills through the assessment curriculum (consultation skills, clinical audit, critical appraisal of the literature), which were important to their individual development and confidence. The 'curriculum' in general practice training is therefore a complex and dynamic interaction of both curriculum as process and curriculum as product. Within this, trainers enter the relationship with their GPR with expert practical knowledge and a willingness to apply their reasoning in action. They do this by setting a learning climate and offer GPRs experiential learning and private dialogue with them to develop their thinking, actions and behaviour. Inside this process, they continually evaluate GPRs against their internalised concept of what is required of a general practitioner. Within this paradigm, the curriculum is not a document but a constructed education process through which knowledge and experiences are translated into practical action. The curriculum is the 'actuality' of practice of what the GPR does, hears, sees, feels and is told. In general practice training, the participants (trainer and GPR) are active and use the formal, assessment, individual and hidden curricula to construct meaning and outcomes. This study indicates that the tensions described in the literature, particularly around the assessment curriculum, result when this individual/practical balance is disturbed and one curriculum begins to dominate.

The curriculum also contains elements of praxis (Smith 2005) because the learning takes place within a set of values and, importantly, through this GPRs acquire an understanding of their social and professional responsibilities and have to live these in action within the tensions and dilemmas inherent in real life situations. These tensions are resolved by GPRs through their dialogue within the learning environment and within the value set and ethical frameworks of living general practice. Central to this

is that GPRs are encouraged to explore their actions with their peers through formal release programmes in their self-directed learning groups and through reflection on their own consultation videos and epiphanies.

In many respects the individual and hidden curricula described in this study are, in Cornbleth's (1990) words, '*an ongoing social process comprised of the interactions of students, teachers, knowledge and milieu*' (p5). If, as Cornbleth argues, the curriculum is viewed as a contextualised social learning process, then the concept of the hidden curriculum is largely redundant and one can view it as part of the extended individual curriculum but involving professional as opposed to clinical experiences:

'(hidden curriculum) in so far as they enable students to develop socially valued knowledge and skills or to form their own peer groups and subcultures they may contribute to personal and collective autonomy and to a critique and challenge of the existing norms of institutions' (p50).

In summary, training for general practice occurs with a set of curricula, the main being a process curriculum that is constructed within each trainer/GPR relationship, central to which is the biography and experience of the GPR. This process fosters reflective practice, which underpins the GPR's learning and professional development. The present policy direction, which is to view curriculum as a product (competencies), results from a failure to understand the complex nature of the early professional learning of GPRs.

The Central Role of the Trainer

As discussed in the previous section, the trainer has a central role in GPR learning. The results support the findings from the literature that a 'good' trainer has the following attributes: clinical expertise; availability; accessibility; is personally

focused; empathetic; is supportive yet can maintain a distance to allow the GPR to grow; and can offer constructive feedback (Aquinno and Jones 2003, Munro *et al* 1998, Taylor 2001). These attributes are similar to those listed by the JCPTGP (2002). However, when selecting potential trainers there has been a recent change of emphasis towards them demonstrating practical skills in areas such as clinical audit, critical appraisal of the literature and consulting skills, all of which are of relevance to the assessment process as opposed to the learning needs of the GPR. This change in emphasis is potentially problematic given the results of this study. The 'technical skills' described above were acquired by GPRs from members of the practice team, their peers or study groups, and were not a central role for the trainer. By directing the selected trainers' focus towards technical skills, the personal skills, which were identified as being very important in supporting GPR learning and the learning environment, could be ignored. The trainers expressed concern in the study about a perceived shift in their role and the increasing emphasis on having to focus their learning and teaching in areas of relevance to the assessments. This supports the findings in the literature review and the perceived risk of trainers disengaging from the training process because they feel their role is being devalued (Irish and Ham 2003, Swanwick 2002,2004).

The results of this study indicate that if a GPR is placed in a suitable training environment, they will actively pursue their own learning needs and will not require their trainer to meet all their needs for them. This supports the view expressed in the literature that GPRs will become autonomous learners, provided they are given permission to learn and the freedom to explore their individual curriculum (Cole 1994, Neighbour 1999, Taylor 2001, Scallon *et al* 2002, Snadden *et al* 1996).

The Duration of Training for General Practice

From the results it is evident that a linked issue is the duration of training and whether new models of training are required. The results of this study do contribute to this debate, even though it was not one of the aims of the study. The study indicates that the GPR year is busy, particularly from months eight to eleven, which are a time of increased workload, work rate and assessment pressures, which is stressful for GPRs. An interpretation of the results of this study would suggest that extending the length of training may provide three benefits:

- It would allow the assessment process and the trainers' needs to be time-tabled in such a way that they did not result in conflict between months eight to eleven.
- It would offer GPRs time to acquire skills in areas where, at present, they lack confidence, such as in business and financial management.
- It would provide the opportunity for some GPRs to manage personal uncertainty.

If there is no extension to training then the organisation and timing of the assessment process need to be reviewed as a matter of some urgency. Importantly, the trainers' need to ensure that their GPRs are capable for general practice has to be recognised and accepted by the RCGP/JCPTGP as a legitimate and important requirement.

The Working Environment and the Career Intentions of GPRs

Although GPRs commented very favourably on the learning environment in general practice, a number expressed concern about their experience of the working environment and culture of general practice. This was a consistent and significant

finding. Through their immersion in general practice, GPRs were exposed to the working realities of life as a general practitioner and through these they identified barriers that would inhibit them becoming general practitioners. These were related to a number of factors, including the nature of partnership working; the content of the general practitioners working life; the pressures on general practitioners; the relative isolation and lack of perceived support as new partners; and their preparedness for the non-clinical roles of the general practitioner. These confirm the findings of other published studies and are partly linked to the duration of training (Bower and Jackson 2002, Johnston *et al* 1998). However, simply extending training without addressing these issues will have a limited impact on the recruitment of GPRs into general practice. It is also not clear the effect that the new general practitioner contract will have on recruitment (BMA 2003).

The Issues for the Researcher

Researcher as Director of Postgraduate General Practice Education

The emergent themes from the study were often in conflict with the present policy direction in medical education. As stated previously, there is an increasing emphasis through Modernising Medical Careers (Department of Health 2003a/b) on a formal, competency-based GPR curriculum. At the same time as this study was being conducted, and while evidence was being gathered that the individual curriculum was critical in driving GPR learning, the researcher was working nationally on the new GPR curriculum. This has a shift in emphasis towards disease-specific categories as well as specific attributes and competencies that a GPR needs to fulfil during the course of the year, in part driven by recent, high-profile medical negligence issues (Hicks 2001, Irvine 1997, Miles *et al* 1996). At the same time, there was a change in

the way trainers were trained and training practices accredited. The emphasis in trainer training is now on specific skills, particularly in the areas of clinical audit, video consultation analysis and critical reading. Moreover, training practice accreditation is becoming more structured, with a focus on measurable elements within the practice rather than on the learning environment or climate: factors that this study suggests are crucial (Smith 2004).

The emergent themes in this study created a difficulty for the researcher as they were at variance with the evolving national policy. The results of this study have given new impetus and additional evidence to support a different direction to that which is emerging nationally and to promote the fostering of local and regional initiatives to ensure that the themes identified in this study are developed.

Researcher as a Teacher

As briefly discussed in the Methodology section (p66) the interpretative process and the contact with the GPRs over the study period resulted in the researcher reflecting on his skills and future needs as a teacher. The stories the GPRs told, the experiences they recalled and the personal/professional issues discussed provided insight into the living reality of being a GPR. Some of the GPR experiences were challenging and difficult to resolve. This involved the researcher devoting both time and emotional energy to assisting the GPRs. From the perspective of a teacher the importance of giving GPRs focused attention and time was critical to allowing them to deal with and resolve the problems they experienced. The researcher learnt the importance of standing back and not offering solutions but rather supporting the GPRs to identify their own solutions and apply these and accepting that GPRs had to experience a

degree of cognitive dissonance to personally and professionally develop (Neighbour 1989).

The interpretive process occasionally lead the researcher into sharing his own clinical experiences with GPRs and this process reconnected him with events and the emotions he experienced as a GPR. This process of sharing often private and detailed information was valuable in helping GPRs interpret their own experiences. This also raised the issue of teacher/trainee boundaries and the fluid nature of these. For the researcher maintaining boundaries between his role as researcher, teacher and mentor was occasionally challenging particularly when GPRs were ill, identified that they were not receiving support or were in a potentially unproductive learning environment. The researcher's skills as a teacher were challenged and extended during the study and resulted in a re-appraisal of some of the skills required of a teacher/trainer, which included:

- Recognising the importance for GPRs of patient contact and patient based epiphanies and giving time to GPRs to help them understand and interpret them.
- Recognising the social dimension to GPR learning.
- Understanding how GPRs construct learning networks and the importance of these in promoting self directed learning.
- The importance to GPRs of reflective feedback.
- Being both available and accessible as a teacher and having a learner centred focus.
- Understanding of the ways GPRs integrate their learning into their clinical practice.

- Recognising the importance to GPRs of the assessment process and the value they attach to it.

A summary of the results with reference to each of the research questions

There were three main research questions and two supplementary questions listed in Chapter three. A summary of the answers provided by the study is given below. Overall the study was successful and the methodology proved useful in generating the necessary data set to answer the research questions.

Main Questions

What are the learning experiences of GPRs during their year in general practice?

The GPR learning experiences are constructed around four main curricula: the formal, assessment, individual and hidden. Each developed different aspects of GPR learning:

- **The formal** set the educational and learning climate which was critical for supporting the learning environment, reflective learning, induction and the early identification of learning needs.
- **The assessment** promoted three main areas of learning; evidenced based practice, consulting skills and clinical audit. It encouraged GPRs to form self directed study groups and be proactive in managing their practice based tutorials.
- **The individual** was the most influential. It was mainly unstructured and non linear and its content was the GPRs daily patient contacts. Through these GPRs were exposed to many learning situations and in particular a number of

epiphanies which lead them to reframe the way they viewed their roles and responsibilities. The patient contacts lead GPRs to critically reflect on their actions and patient management with their trainer and to form clinical management plans that were patient specific and contextualised. They developed a social dimension to their learning both within and external to the practice as they sought to find real life solutions to the problems they were presented with.

- **The hidden** was an extension of the individual curriculum. Through their immersion in practice GPRs learnt about the living reality of general practice and the nature of life as a general practitioner. They gained insight into the working practices of general practice, the stories that shaped each, the professional roles and values of general practice and what general practitioners value in a GPR. This resulted from their social immersion in the practice as an organisation.

What are the main processes of learning during the GPR year?

The main learning processes were: experiential, social learning through formal and informal networks, self learning, narratives from other practitioners and shared reflection. Each GPR within their training practice constructed with their trainer a learning curriculum that was based on their own professional and personal biography and their clinical and personal needs. An important social dimension to their learning was identified both within and external to their training practice. Within each training environment a combination of learning methods were used including self reflection, shared reflection, reading/ information technology, informal dialogue and discussions

within and external to the practice and peer learning groups. The focus of learning was on the resolution of practical and real patient based problems.

Do GPRs integrate their learning into their clinical practice and if they do what are the main changes in their clinical practice?

GPRs integrate their learning into their clinical practice. The main changes in their clinical practice are detailed in pages 158-161. These resulted in GPRs acquiring skills in two main areas. Firstly they became more patient focused in their practice of medicine this included sharing management decisions, respecting patient autonomy, defining the boundaries of their clinical activity within general practice and treating patients as individuals. Secondly they enhanced their knowledge of general practice medicine, which allowed them to develop management strategies for individual patient problems which helped them contain and manage personal and clinical uncertainty.

Supplementary Questions

Do GPRs reflect on their learning experiences and what factors promote and hinder this process?

GPRs do reflect on their experiences and this is assisted by their trainer and the educational environment within their practice. The reflective process is an iterative one involving both reflecting 'in action' and 'on action'. It assists GPRs to learn from their experiences and to constructively learn from these. The main hindering factors are a lack of time particularly in the final quarter of the year and an unsupportive or non empathic trainer.

Do GPRs experience uncertainty during their year and if they do how do they manage it?

GPRs experience three types of uncertainty during their year, personal, clinical and conceptual. Clinical uncertainty is managed through the formal curriculum and the support and availability of the practice team and the practice clinical systems. Personal uncertainty is managed through the individual curriculum by increasing experience and knowledge, supported reflection and peer support. Conceptual uncertainty was not common but some GPRs had difficulty with their expanded role and their perception of their role as a general practitioner and a doctor.

Policy Implications of the Results

The results of this study, when taken in the context of the literature review, have policy implications for the future of training for general practice. These are:

- The present policy of developing a national competency-based curriculum for general practice training needs to be reviewed in the light of the results of this study. The importance of the individual curriculum and in particular, clinical epiphanies, in promoting reflective learning needs to be recognised.
- A need to acknowledge and develop the role of the trainer and support the acquisition of skills to enhance the development in GPRs of reflective practice.
- Consideration should be given to extending the duration of training for general practice or, if this is not practical, the assessment timetable should be urgently reviewed.
- The content of the assessment process should be reviewed to give greater emphasis to the attributes and skills that trainers consider important.

Moreover, the trainers need to be involved in the design and delivery of the assessments.

- The importance of the working environment in general practice and its effect on GPR's needs to be recognised and further work is required to determine how it could be improved to promote the GPR's career choice of general practice.
- Individual mentoring support and peer-group learning should be established and financially supported for GPRs in their first year as general practitioners.
- The effect of the learning environment in hospital and the potential detrimental effects of the new working arrangements for junior doctors engaged in learning in hospital needs to be further researched.
- There needs to be recognition of the importance of the GPRs' self-constructed learning communities and the provision of more time to enable GPRs to explore the full learning potential of these.

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Appendix 1

RESEARCH PROJECT ETHICS DECLARATION FOR STUDENTS

Name of student...David Blaney.....
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Title of project...The Learning Experiences of General Practice Registrars in the South east of Scotland
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Outline the main issues pertinent to your research project here, including a discussion of any ethical issues that may arise but are not sufficiently covered by the selected code of practice. Indicate the actions planned to deal with these issues.

In designing the study I referred to the BERA Ethical guidelines (revised 2004) and the General Medical Council document *Good Medical Practice* (2002 GMC London)

In respect of the following paragraphs of the guidelines:

10-11: all the subjects who participated in the study did so voluntarily and were fully informed of the purpose and methods of the project. They were informed both in writing and verbally as detailed on pages 71-80 in the methods section.

13: Subjects were free to withdraw at any stage and were under no contractual obligation to participate in the project

20: No incentives were offered to any subjects to participate

23-26: Subjects data was treated confidentially as detailed in pages 78-80 in the methods section. All stored data was anonymised and identifiable material was either destroyed or returned to the subject after use. Subjects were free to access any held data relating to them at any time and withdraw it should they so wish. Any published data (for the thesis) had all potentially identifiable characteristics removed or changed to ensure no individual subject or event was identifiable.

27-29: I worked within the General Medical Council guidance as detailed in *Good Medical Practice* (GMC. London 2002) and my obligations under this were made clear to the subjects as detailed in page 80 in the methods section

36-39: Are dealt with in the methods section

38-43: None of the material presented in this thesis has been published or presented at any conference