

2007

Skill mix in primary care : patient, professional and management perspectives

Branson, Christine

<http://hdl.handle.net/10026.1/410>

<http://dx.doi.org/10.24382/4221>

University of Plymouth

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

**SKILL MIX IN PRIMARY CARE: PATIENT, PROFESSIONAL AND
MANAGEMENT PERSPECTIVES**

by

CHRISTINE BRANSON

A thesis submitted to the University of Plymouth
in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

Business School
Faculty of Social Science & Business

In collaboration with
Torbay Care Trust

January 2007

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with its author and that no quotation from the thesis and no information derived from it may be published without the author's prior consent.

CHRISTINE BRANSON

ABSTRACT OF SKILL MIX IN PRIMARY CARE: PATIENT, PROFESSIONAL AND MANAGEMENT PERSPECTIVES

Aim: This research is a study into the organisation and management of health services in Torbay Care Trust. It takes an overview of skill mix in primary care, considering the topic from the perspective of service recipients (patients), providers (professionals) and shapers and resourcers (management). The topic focuses on delegation and service diversification involving general practitioners, their directly employed team and community nurses attached to practices. Between and within the groups there are areas of agreement but also divergence of opinions and the key issues to be explored emerge from the literature.

Approach: The study takes a combined case study, ethnography and survey approach. The patient research begins with focus groups and interviews and the data is triangulated with a survey; 22 patients were interviewed and 241 (28%) questionnaires returned. The professional research begins with a questionnaire survey, to test findings from the literature, followed by interviews to pick up areas where views differ; 128 (46%) questionnaires were returned and 8 professionals interviewed. The management research uses in-depth interviews as little existing research is available; eight individuals holding management roles in general practice, a primary care trust, a strategic health authority and at the national level were interviewed.

Main findings:

Influences on views: Influences on patient views were the use of services, age, working and health status. For professionals, job role was the main influence.

Interpretation of the term 'skill mix in primary care': Delegation to nurses was important to all. Diversification, teamwork and job satisfaction were important to professionals and management; however, concerns on overlapping roles and specialisation emerged.

Service factors: Communications and continuity were important to patients, although concerns about continuity were raised. There was patient support for GPs taking on a limited range of specialist tasks. Professionals were most supportive of this skill mix development.

Drivers and issues: Access was important to patients and meeting the access standard was important for management. GP workload, and recruitment and retention of nursing staff, were noted as drivers as were contractual changes. Problems included attitudes, different employers of team members, competencies, accountabilities and lack of training/supervision. Efficient use of time was important to patients and management. Professionals were concerned about time for implementation.

Professionals involved: Attached nurses were mentioned infrequently and they were less likely to feel part of the primary care team. GP-employed nurses, particularly practice nurses, were mentioned frequently in terms of taking on work from GPs. Their job roles emerged as similar to district nurses. GPs identified tasks they would delegate to nurses, mainly chronic disease management. Support staff mentioned included receptionists and health care assistants.

Conclusions

This research is unique and adds to knowledge as it offers insights into skill mix in primary care from the perspectives of patients, professionals and management. Perspectives specific to each group emerge as do shared values. Skill mix in this study also incorporates both of the concepts of delegation and diversification, rather than one or the other. Views on interpretation of the term 'skill mix in primary care', service issues, drivers, variables that affect skill mix and, views on professionals involved are used to arrive at a new model for the development of skill mix in primary care. Implications for policy can be identified across the health care system including the need to increase patient awareness and provide information, the use of contractual changes to promote skill mix and issues around premises and training. For practices and PCTs, tasks which can be delegated to nurses and assistants have been identified. There is also some support for GPs with special interests and other professionals based at the practice both of which could be implemented.

Contents		Page
Abstract		iii
Acknowledgements		x
Author's declaration		xi
Glossary/abbreviations		xii
1 Introduction		1
1.1	Background to the research	1
1.2	Existing research	7
1.3	Aims and objectives	9
1.4	Justification for the research	11
1.5	Definitions	19
1.6	Methodology	23
1.7	Boundaries of the research and key assumptions	25
1.8	Study outline	30
1.9	Summary	32
2 Literature Review		34
2.1	Introduction	34
2.2	Interpretation of the meaning of 'skill mix'	35
2.3	Influences on perspectives	45
2.4	Service context	53
2.5	Drivers for change	58
2.6	Professionals involved in skill mix	65
2.7	Synopsis of the literature review	74
2.8	Summary/conclusions	80
3 Methodology		83
3.1	Introduction	83
3.2	Design	83
3.3	Samples	92
3.4	Instruments/measurements	103
3.5	Ethical issues	110
3.6	Data collection	113
3.7	Data analysis	120
3.8	Validity and reliability	124
3.9	Boundaries of the research	126
3.10	Summary	127
4 Results		128
4.1	Introduction	128
4.2	Structure of the chapter	128
4.3	Response rates	129
4.4	Profile of participants	131
4.5	Interpretation of the term 'skill mix'	137
4.6	Service context	149
4.7	Internal/external drivers	161
4.8	Determinants (issues)	169
4.9	Determinants (staff)	178
4.10	Summary and key points	191

5	<i>Analysis and discussion</i>	199
5.1	Introduction	199
5.2	Patient perspectives on skill mix in primary care	200
5.3	Professional perspectives on skill mix in primary care	205
5.4	Management perspectives on skill mix in primary care	213
5.5	Convergence and divergence of views between patients, professionals and management	219
5.6	Definitions of 'skill mix' and 'primary care'	221
5.7	Influences on perspectives	223
5.8	Summary	230
6	<i>Conclusions</i>	231
6.1	Introduction	231
6.2	Conclusions about the research aim	231
6.3	Patient, professional and management views on skill mix in primary care and the extent to which they converge	233
6.4	Revised definitions of 'skill mix' and 'primary care'	237
6.5	Understanding what influences views on skill mix in primary care	239
6.6	Confirmation of existing work on skill mix in primary care	247
6.7	Development of a method of studying patient views on skill mix in primary care	259
6.8	Recommendations for evidence based policy and practice	262
6.9	Suggestions for further research	272
6.10	Summary	278
7	<i>Reflection</i>	280
7.1	Introduction	280
7.2	Generalisability	281
7.3	Ethnography at home	285
7.4	Practical issues	290
7.5	Summary	294
Appendix 1	<i>Literature review strategy and search</i>	297
Appendix 2	<i>Professional background of the author</i>	299
Appendix 3	<i>Patient focus group "key cards"</i>	300
Appendix 4	<i>Patient interview framework</i>	302
Appendix 5	<i>Professional interview framework</i>	304
Appendix 6	<i>Management interview framework</i>	306
Appendix 7	<i>Patient questionnaire</i>	308
Appendix 8	<i>Research information sheet</i>	310
Appendix 9	<i>Professional questionnaire</i>	314
Appendix 10	<i>Local Research Ethics Committee application</i>	319
Appendix 11	<i>LREC letter of approval</i>	332
Appendix 12	<i>Patient consent form</i>	333
Appendix 13	<i>Letter to patient focus group members</i>	334
Appendix 14	<i>Invitation to attend patient interview</i>	335
Appendix 15	<i>GP cover letter for survey to patients</i>	336
Appendix 16	<i>Example of analysed transcript</i>	337
Appendix 17	<i>Patient focus group overview grid</i>	340

Publication: Branson C, Badger B, Dobbs F (2003) "Patient satisfaction with skill mix in primary care: a review of the literature" Primary Health Care Research and Development, 4, pp. 329-339 367

Tables and figures		Page
Table 1-1	<i>Demographic and socio-economic profile of Torbay, compared with England and the South West</i>	27
Table 1-2	<i>Disease prevalence in Torbay, compared with the South West Peninsula Health Authority and England</i>	28
Table 1-3	<i>Torbay GP and practice characteristics, compared with the South West and England</i>	29
Figure 1-1	<i>Organisational integration and skill mix: identifying factors and issues to be addressed</i>	7
Figure 1-2	<i>Policy process levels in the NHS</i>	18
Figure 2-1	<i>Factors affecting group effectiveness and interpretation of the term 'skill mix' (derived from the literature)</i>	76
Figure 2-2	<i>Influences on patient perspectives: links between patient phenomena, satisfiers and service implications for skill mix (derived from the literature)</i>	78
Figure 2-3	<i>PEST analysis: Environmental factors influencing skill mix developments (derived from the literature)</i>	79
Figure 2-4	<i>Emerging model of the body of knowledge relating to skill mix in primary care: patient, professional and management perspectives</i>	81
Table 3-1	<i>Chronological overview of the case study, ethnography and survey research conducted</i>	87
Figure 3-1	<i>Overview of survey sampling processes</i>	92
Figure 3-2	<i>Overview of qualitative sampling processes</i>	93
Figure 3-3	<i>Phenomena used to identify levels of skill mix development, focusing on delegation and diversification</i>	94
Figure 3-4	<i>Phenomena which influence patient perspectives on health services (derived from the literature)</i>	97
Figure 3-5	<i>Phenomena which have been shown to influence professional views on skill mix in primary care, derived from the literature</i>	100
Figure 3-6	<i>Qualitative data analysis: steps and considerations in coding</i>	121
Table 4-1	<i>Professional survey: response rates by profession</i>	130
Table 4-2	<i>Patient focus groups and interviews: participant characteristics</i>	131
Table 4-3	<i>Patient survey: age range, by practice type group</i>	133
Table 4-4	<i>Professional survey: job type and gender of respondents</i>	133
Table 4-5	<i>Professional survey: age of respondents by job type</i>	134
Table 4-6	<i>Professional survey: years qualified by job type</i>	135
Table 4-7	<i>Professional interviews: participant characteristics</i>	136
Table 4-8	<i>Professional survey: views on teamwork</i>	141
Table 4-9	<i>Patient survey: views on transfer of services from hospital doctors to GPs</i>	151
Table 4-10	<i>Professional survey: agreement to GPs carrying out secondary care activities</i>	153
Table 4-11	<i>Patient survey: ranking and use of services which could be based at the surgery</i>	154

Table 4-12	<i>Professional survey: views on services which could be based at the surgery</i>	155
Table 4-13	<i>Professional survey: attached nurses' core job roles</i>	179
Table 4-14	<i>Patient survey: views on GP to nurse delegation</i>	181
Table 4-15	<i>Professional survey: GP employed nurses' core job roles</i>	183
Table 4-16	<i>Patient survey: Views on delegation from nurses to assistants</i>	185
Table 4-17	<i>Professional survey: GP core job roles</i>	187
Table 4-18	<i>Professional survey: tasks GPs have or would delegate</i>	188
Table 4-19	<i>Professional survey: professionals GPs would delegate to</i>	189
Figure 4-1	<i>Overview of the patients, professionals and management involved in the study</i>	192
Figure 4-2	<i>Overview of the results relating to interpretation and understanding of skill mix in primary care</i>	193
Figure 4-3	<i>Overview of the results relating to service issues in skill mix in primary care</i>	194
Figure 4-4	<i>Overview of the results relating to drivers of skill mix in primary care</i>	195
Figure 4-5	<i>Overview of the results relating to issues in skill mix in primary care</i>	196
Figure 4-6	<i>Overview of the results relating to professionals involved in skill mix in primary care</i>	197
Table 5-1	<i>Professional survey: core job roles, by profession</i>	207
Figure 5-1	<i>Patient perspectives on skill mix in primary care: how the findings of this study relate to the existing literature</i>	205
Figure 5-2	<i>Professional perspectives on skill mix in primary care: how the findings of this study relate to the existing literature</i>	213
Figure 5-3	<i>Management perspectives on skill mix in primary care: how the findings of this study relate to the existing literature</i>	218
Figure 5-4	<i>Key skill mix issues for patients, professionals and management and shared issues of importance</i>	220
Figure 5-5	<i>Influences on views on skill mix in primary care: how the findings of this study relate to the existing literature</i>	229
Table 6-1	<i>Summary of policy implications and recommendations</i>	266
Table 6-2	<i>Summary of practice implications and recommendations</i>	270
Table 6-3	<i>Suggestions for future research by topic and participant</i>	277
Figure 6-1	<i>Patient, professional and management definitions of 'primary care' and 'skill mix'</i>	239
Figure 6-2a	<i>Thematic framework on patient views on skill mix (derived from the literature and revised following the study)</i>	243
Figure 6-2b	<i>Thematic framework on patient views on skill mix (derived from the literature and revised following the study)</i>	244
Figure 6-3	<i>Influences on professional views: job role and key issues for skill mix</i>	246
Figure 6-4a:	<i>Factors affecting group effectiveness and interpretation of the term 'skill mix' (derived from the literature and revised following the study)</i>	250
Figure 6-4b	<i>Factors affecting group effectiveness and interpretation of the term 'skill mix' (derived from the literature and revised following the study)</i>	252
Figure 6-5a	<i>PEST analysis: Environmental factors influencing skill mix developments (derived from the literature and revised following the study)</i>	253
Figure 6-5b	<i>PEST analysis: Environmental factors influencing skill mix developments (derived from the literature and revised following the study)</i>	255

<i>Figure 6-6a</i>	<i>Emerging model of the body of knowledge relating to skill mix in primary care: patient, professional and management perspectives (derived from the literature review and revised following the study)</i>	256
<i>Figure 6-6b</i>	<i>Emerging model of the body of knowledge relating to skill mix in primary care: patient, professional and management perspectives (derived from the literature review and revised following the study)</i>	259
<i>Figure 6-7</i>	<i>Skill mix procedural checklist: for use at a practice team building event or similar</i>	271

Acknowledgements

The reason for undertaking this study was to combine a genuine interest in research, acquired from the completion of a Masters degree, with a topic of work interest: primary care. Having worked in 'primary care development' in the NHS for over ten years, I remain fascinated by primary care as an important part of the patient experience and an increasingly important part of the organisation and management of the NHS. Working with primary care is, in turn, hugely rewarding, humorous, fascinating and exasperating! Some topics, such as skill mix, produce a variety of responses. These can range from great enthusiasm and effort leading to real improvements, to deep cynicism and a resistance to change and develop. It is against this mixed background that I relished the opportunity to study primary care in depth, focusing on a relevant and interesting topic.

In doing this, I have been assisted by a number of people and organisations. My employer, Torbay Care Trust (previously Torbay Primary Care Trust), assisted me with funding for the programme fees and patient involvement. The Director of Studies from the University of Plymouth, Beryl Badger, has been very supportive through the process on both a personal and professional level. At the start of the study, second supervisor, Dr Frank Dobbs provided valuable advice and guidance on the topic. Mike Leat from the University provided useful feedback to strengthen the thesis during the later stages of the study. Dr Steve Shaw from the University provided help and advice with the statistical analysis. Dr David Kernick, Exeter GP and researcher with a special interest in skill mix, has provided helpful insights and proved a good contact and ally through the study. I would also like to thank all those who gave up their time to participate in the research, especially those who were interviewed, but also those who completed questionnaires. Finally, I would like to thank my family, friends and colleagues for their continued interest and enquiry into to progress on the study over the last five years and encouragement to keep going.

Author's Declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award.

This study was part financed by Torbay Care Trust (previously Torbay Primary Care Trust), the author's employer, and carried out in collaboration with the same.

A programme of advanced study was undertaken, which included a Master of Arts degree in business which developed research skills and techniques, information technology and project management courses to enhance research management skills and, various mandatory training events which improved awareness of issues relating to the research environment.

Relevant seminars and conferences were attended and papers prepared for publication.

Publications:

- Branson C, Badger B, Dobbs F (2003) "Patient satisfaction with skill mix in primary care: a review of the literature", *Primary Health Care Research and Development*, 4 (4), pp. 329-339

Presentations:

- Workshop on skill mix in primary care: the attitudes of patients, professionals and managers, South West Regional Research Workshop, Dartington Hall, Totnes (November 2001)
- Poster presentation on skill mix in primary care: patient professional and managerial perspectives, Riviera Research Day, The Grand Hotel, Torquay (November 2004)

Conferences Attended:

- South West Area Research Movement Annual Conference, St Mellion, Cornwall (March 2001)
- Riviera Research Day, The Grand Hotel, Torquay (November 2004)

Word count of the main body of the thesis:

- 72,980 words (including figures, tables and quotes)

Signed C Branson

Date 5/1/07

Abbreviations used in the study

A&E	Accident and emergency
BMA	British Medical Association
CAB	Citizens Advice Bureaux
CHC	Community Health Council
CHD	Coronary heart disease
COPD	Chronic obstructive pulmonary disease
CPD	Continuing professional development
CPN	Community Psychiatric Nurse
DH	Department of Health
DN	District Nurse
FHSA	Family Health Services Authority
GMS	General medical services
GP	General Practitioner
GPSI	GP with a special interest
HCA	Health Care Assistant
HV	Health Visitor
LREC	Local Research Ethics Committee
LVD	Left ventricular dysfunction
MRCGP	Member of the Royal College of General Practitioners
MREC	Multi-centre Research Ethics Committee
NPCRDC	National Primary Care Research and Development Centre
NHS	National Health Service
NP	Nurse Practitioner
PALS	Patient and Public Liaison Officer
PBC	Practice based commissioning
PCO	Primary Care Organisation
PCT	Primary Care Trust
PEC	Professional Executive Committee
PM	Practice Manager
PMS	Personal Medical Services
PN	Practice Nurse
RCGP	Royal College of General Practitioners
R&D	Research and development
SDO	Service Delivery and Organisation
SHA	Strategic Health Authority
SPSS	Statistical Package for Social Sciences
TCT	Torbay Care Trust

1 Introduction

This chapter provides an introduction to the research. It outlines the importance of the area to be studied and the extent to which the topic has previously been researched. The aim and objectives for the study are then presented. Justification for the research is given and definitions for the terms used in the study are discussed. The methodology and the boundaries that apply to the research are introduced. The chapter closes with an outline of the chapter contents of the thesis.

1.1 *Background to the research*

This research is a study into the organisation and management of a particular facet of health services, focused on Torbay Care Trust. The study of health services organisation is increasingly important. In the National Health Service (NHS), it led to the launch of the NHS Service Delivery and Organisation Research and Development programme in March 2005 (Department of Health, 2006). This relatively new programme now runs alongside the Health Technology Assessment (HTA) and New and Emerging Aspects of Technology (NEAT) programmes. This seems to reflect the view that the study of health services organisation is increasingly important because the development and evaluation of new therapies and diagnostic tools only provides part of the answer to better health care (Fulop *et al*, 2001).

1.1.1 The importance of health services

Health services, the dominant model in the UK being the NHS, are important in a number of ways. Health services are important in society because of social changes, such as an ageing population with greater health needs, and an increasing focus on well-being and illness (Powell *et al*, 1999). They are also important in economic terms as the NHS consumes significant resources. The planned budget for the NHS in 2006-7 is £76,200 million, which equates to 27% of public sector spending (HM Treasury, 2006). The NHS is also a large employer, employing more than 1.3 million staff, making it the largest employer in Europe (NHS Careers, 2006).

Health services have become increasingly complex because of a number of changes and developments in service delivery. There are now three recognised 'levels' of health services: tertiary, secondary and primary care (Audit Commission, 2002). Tertiary services are the most specialised and include, for example, paediatric cardiac surgery. Secondary care services are general hospital services which provide a range of inpatient and outpatient services. Primary care services are usually the 'first point of contact' for patients. Primary care also acts as the gatekeeper to more specialised secondary and tertiary care services. Primary care is often identified as the general practice team, although others including community services and pharmacists, may also be considered part of primary care.

1.1.2 The importance of primary care

Primary care services are increasingly important for a number of reasons. Most people in contact with the NHS are seen in primary care; a figure of 81% has been quoted (Audit Commission, 2002). Primary care is also one of the most cost effective parts of the NHS, consuming only a quarter of the resources (Audit Commission, 2002). It is a rapidly growing sector, and the numbers of staff working in primary care have increased substantially. Between 1991 and 2001 the numbers of practice staff have increased by 35%; practice nurses increased by 27% and administrative and clerical staff by 35%, although GP numbers only increased by 1% (Department of Health, 2002). However, it is noted that because of changes in working time commitment, monitoring the GP workforce using total numbers may be misleading (Taylor and Leese, 1997).

Most primary care services are provided through GP practices, as independent contractors. This means that they are not NHS employees, rather they are independent and contract with Primary Care Trusts (PCTs) to provide services. Most PCTs work with a stable number of practices so GP practices exercise a near monopoly on the provision of primary care; therefore the power and influence of general practice is strong in the NHS (Peckham and Exworthy, 2003).

Primary care is also important for policy makers because it is a mechanism or means by which other objectives can be met. It can be seen as key to

managing relatively expensive activity in secondary and tertiary care, through the GP referral gatekeeper function. There are also policy drivers from the Department of Health that focus on primary care itself. The NHS Plan introduced a target to reduce waiting times in primary care, setting the standard that patients should be able to see a GP within 48 hours and a primary care professional within 24 hours (Department of Health, 2000). The plan also included targets to increase the numbers of GPs and nurses and to develop more GPs with special interests, to bring services closer to patients and reduce demand for hospital services. These priorities help to meet changing patient expectations and achieve a policy aim of choice and diversity in service provision (Peckham and Exworthy, 2003). The importance of primary care in policy terms looks set to continue. Much of the Wanless Report, on the future funding of the health service, mentioned that despite an already large increase in the number of primary care consultations, a further substantial increase is needed to manage health service activity (Wanless, 2002).

1.1.3 The importance of skill mix

The development of skill mix has been advocated as a way of achieving the increase in primary care activity, that Wanless (2002) suggested is necessary. Skill mix involves changing the roles and responsibilities of health care professionals. In primary care, this can include nurse practitioners, health care assistants and GPs taking on more complex work and becoming increasingly specialised. The Audit Commission, in their report into the future

of primary care (2002), noted that skill mix can also help manage the shift of work from hospitals and the increased complexity of health and health care. They also identified that it could assist with the difficulties of recruiting and retaining GPs and nurses, and the issue of more GPs wanting to work part-time or to pursue other interests. Both the Audit Commission and Wanless observed that there is still scope for more development of skill mix in primary care. The Audit Commission note that there is one nurse to 2.3 GPs in primary care. This compares with one hospital doctor to four nurses, or one consultant to twelve nurses in secondary care. This still appears to be an issue as recent workforce data shows that there are currently 35,000 GPs working in primary care, but only 22,000 practice nurses (NHS Information Centre, 2006).

However, despite seemingly slow development, skill mix is not new in primary care as shown in a historical overview of the development of primary care by Peckham and Exworthy (2003). Health centres, where various services and professionals were brought together, were first mooted in the early 1900s in the Dawson Report. These proposals were rejected by the British Medical Association (BMA) when included in the NHS White Paper in the 1940s but over time, GPs became more interested in inter-disciplinary working. In 1963 the Gillie Committee noted that inter-disciplinary teams would need larger premises, and from the mid-1960s there was a rapid development of health centres. The attachment of nurses to general practice was first promoted through the 1965 GP charter. However, it was not until 1990 with introduction of the GP contract that practice nurses were increasingly employed by GPs,

and GPs started to delegate to them. GP fund-holding, which was introduced in the 1990s, encouraged practices to establish extra services, bringing in consultants to run outreach clinics and contracting with physiotherapists. Other developments designed to encourage skill mix have included increased flexibilities in contracting, through personal medical services (PMS) pilots in the 1990s and more recently, the new general medical services (GMS) contract. Both focus on the practice as the unit of delivery rather than the GP, thereby encouraging greater skill mix (Lewis *et al*, 2003).

Policy drivers for the Department of Health are to improve population health, deliver service efficiency and provide patient focused care. This increasingly requires the NHS to work with other agencies, and a key part of system reform is integration or 'boundary-busting' (Denis *et al*, 1999). Denis *et al* note that there are different forms of integration: within the organisation, across professional groups, between practices and between primary and secondary care and other organisations, such as social services. These different types of integration may all be considered to be types of skill mix. The identifying factors and issues to be addressed for each type of integration as identified by Denis *et al* are shown in figure 1.1.

Figure 1-1: Organisational integration and skill mix: identifying factors and issues to be addressed

<i>Type of integration</i>	<i>Identifying factors</i>	<i>Issues to be addressed</i>
Intra-organisational integration, e.g. delegation.	<ul style="list-style-type: none"> ▪ Driven by economic considerations, professional specialisation and nurses promoting their roles. 	<ul style="list-style-type: none"> ▪ Need to retain interest of dominant professional groups, such as doctors. ▪ Focus on need above standardisation.
Inter-organisational integration, e.g. diversification.	<ul style="list-style-type: none"> ▪ Horizontal integration may involve practices working together for economies of scale/centres of excellence. ▪ Vertical integration may involve different sectors collaborating to provide community based care. ▪ Systematic integration may involve working with other organisations, such as social services, to reduce waste and duplication and improve population health. 	<ul style="list-style-type: none"> ▪ Need to align incentives driving professionals. ▪ Rules must be clear. ▪ Professionals should be able to see the benefits.

Source: Denis *et al* (1999)

1.2 Existing research

An important part of health services organisation research includes looking at how work is best organised, performed and monitored: skill mix (Degeling *et al*, 2003). However, despite the stated importance of primary care and skill mix, there appears to be a dearth of research in this area. This is highlighted in the two bibliographies of skill mix in primary care from the National Primary Care Research and Development Centre (NPCRDC). Sergison *et al* (1998) in

the first bibliography covering 1965-1996 and Halliwell *et al* (1998) in their sequel observe that although skill mix should be evidence based, there is a dearth of research and many developments are still to be adequately researched.

Sergison *et al* and Halliwell *et al* go on to note that the existing evidence is scattered across the specialist literature of different professional groups, making it difficult to form an overview. The fact that the existing evidence is predominantly in the literature of professional journals also means that the views of others with an interest in skill mix, such as patients and management, might not have been adequately explored. Others have noted that some aspects of skill mix, such as the creation of new roles including nurse practitioners and advanced practice nurses, are not well founded on research evidence, rather they are a consequence of high demand on primary care and shortages of GPs (Laurant *et al*, 2000; Eve *et al*, 2000; Richards and Tawfik, 2000). This suggests that there is considerable scope for research into skill mix in primary care, taking different perspectives to form a coherent overview.

The literature review in chapter 2 of this study provides an analysis of the existing literature on skill mix in primary care. Some studies were found which considered patient views on specific aspects of skill mix in primary care, for example the acceptability of seeing a nurse practitioner for same day appointments. However, there was nothing which gave a coherent overview of skill mix from the patient perspective. The literature on what influences

patient views on services was explored but these studies did not specifically relate to skill mix. It is also worth noting that the majority of the patient studies used quantitative methodologies. To identify influences and explore views, it may be that qualitative methods are more appropriate.

A large number of the papers used in the literature review were in professional journals. Many were editorials or discussion papers, with few research studies on skill mix. As with patients, it was not possible to form a coherent overview of professional views on skill mix. Little research on management views on any topic, least of all skill mix, was found. Those studies which were found tended to focus on managers in hospital settings, and were reported in professional journals. Only one study was found where patient, professional and management views were considered together: a small scale study on a single hospital ward on interpretations of what constitutes 'quality'. Much of the 'management' literature was in fact related to the practise of management or health service policy.

1.3 Aims and objectives

The importance of studying health services, primary care and skill mix has been stated. The existing research on the topic has been considered. Taking this into account, this section outlines the emerging aim and objectives for the research. The aim is a statement which reflects the aspirations and expectations of the research topic. The objectives are specific statements relating to the aim. There is a mix of objectives for the study that include

developing knowledge and understanding, the assessment of attitudes/understanding and the development of skills and competence in the practical methods of data collection.

Research aim:

- *To contribute to the understanding of skill mix in primary care by studying the perspectives of patients, professionals and management.*

Research objectives:

1. *To identify the opinions of patients, professionals and management on skill mix in primary care.*
2. *To identify whether there is any convergence in views, the extent of divergence and develop a model to show this.*
3. *To test existing definitions of 'skill mix' and 'primary care' from the three stakeholders perspectives.*
4. *To understand what influences views on skill mix in primary care.*
5. *To analyse the existing literature to identify the key issues to be studied, to test the issues to confirm or disprove current work and develop a model to show this.*
6. *To develop a methodology for studying patients' views on skill mix in primary care.*
7. *To make recommendations for evidence-based policy for implementation at national and local levels.*
8. *To provide a basis for future research into this area and offer suggestions for further research.*

1.4 Justification for the research

The introduction to this chapter considered the importance of the area to be studied: health services, primary care and skill mix. This section considers the justification for research into the perspectives of patients, professionals and management.

Patients can be identified as recipients of services, professionals as providers and management as shapers and resourcers. Alford (1975) identifies these three interest groups as reflecting 'repressed', 'dominant' and 'challenging' interests – the community, the professional monopolisers and the corporate rationalisers. It is these three interest groups, with their different roles and perspectives on skill mix, which form the basis for the research.

1.4.1 Patient perspectives

Patient perspectives on health services are important as they are the recipients of services, 'the customer'. In research terms, there is a growing awareness of the need for health service research to be responsive to those who use the services – patients – as well as staff (Fulop *et al*, 2001).

The involvement of patients is also important in policy terms. Back in 1974, Community Health Councils (CHCs) were established to provide a forum for

patient perspectives to influence services. The Conservative Government's *Working for Patients* White Paper explicitly stated that services should be planned and delivered to meet the expressed needs of patients (Department of Health, 1989). When Labour came into power, their White Paper *The new NHS: modern, dependable* centred on the establishment of Primary Care Groups and Trusts, which included lay members (Department of Health, 1997). The more recent discussion document *Involving Patients and the Public in Healthcare* proposed that CHCs be replaced by local Patients' Forums in each NHS organisation, which has occurred (Department of Health, 2001). This brief summary helps to show that there is a strong policy drive for patients to become more involved in the organisation of the health service, with some attempts to increase their power. However, whether the content of the policy documents has set the policy to be followed or encapsulated emergent policy from changes in society such as consumerism, higher levels of education and greater access to information, is debatable (Peckham and Exworthy, 2003).

Consideration on the future direction of Primary Care Trusts has brought the issue of patient-led services to the fore again. Stronger market incentives, new financial flows (cost per case funding to encourage rapid access to high quality care), patient choice of alternative providers, and providers from the public and private sector in the UK and internationally are all planned (Lewis *et al*, 2003). Having identified that patient involvement and understanding their perspectives is important in policy and research terms, patient perspectives on skill mix will be an important part of the study.

1.4.2 Professional perspectives

The views of professionals involved in skill mix are important because they are the providers of services. From a policy perspective, they are important as they are the recipients of directives to be implemented and their views will influence the extent changes occur. GPs and nurses are important stakeholders in skill mix in primary care in terms of numbers, influence and power, and also because skill mix focuses almost exclusively on their changing roles. However, they are also important because it could be argued that local practitioners enjoy such a degree of discretion in the NHS that their actions become the de-facto policy of the organisation, rather than orders issued by the centre (Peckham and Exworthy, 2003).

In professional organisations like the NHS, there is usually a common thread of professional values, beliefs and aspirations woven into the fabric of the organisation and attempts to change systems or structures in incompatible ways are likely to fail (Powell *et al*, 1999). It is for this reason that health services research has increasingly focused not only on what professionals do, but also on knowledge, attitudes and beliefs and how these might change (Crombie and Davies, 1996).

However, professionals as a group do not necessarily hold the same views on an issue. In primary care, where medicine and nursing co-exist, competition for territory can occur in a field of interest such as skill mix (Ritzer, 2001).

However, as doctors tend to retain complex or unpredictable work they are traditionally the dominant professional group (Denis *et al*, 1999). Primary care doctors - GPs - also enjoy considerable power because they are not only providers but also owners and managers, as in Mintzberg's professional bureaucracy (Mintzberg, 1993) and Greenwood *et al*'s P² or professional partnership model (Greenwood *et al*, 1990). Peckham and Exworthy (2003) also note that the leadership role of GPs is reinforced through NHS structures, with their role as purchasers (as in fund-holding and now practice based commissioning) and on the executive committees of PCTs where they remain the professional majority. It can be argued that because GPs have successfully taken on management roles, they remain a powerful group because they are directly involved in the narrative of strategic change of new managerialism. As providers, GPs are also in a strong position in primary care because there is only one sort of doctor – the general practitioner. There are many different types of nurses who work in primary care – nurse practitioners, practice nurses, health care assistants, district nurses and health visitors – and professional divisions can occur. This clearly shows the importance of understanding the views of GPs as a powerful group, thus their views form part of the study.

Nursing has undergone considerable professionalisation over the last few years and is increasingly challenging medicine. For example, it has been found that nurse practitioners could take on between 30-70% of GPs work (Kernick and Scott, undated article). The Chief Nursing Officer has also encouraged nurses to diversify, with 10 key roles for nurses identified

(Department of Health, 2002). These include ordering investigations, making and receiving referrals directly, admitting and discharging patients, managing caseloads, running clinics, prescribing, carrying out resuscitation procedures, performing minor surgery and out-patient procedures, triaging patients, and taking the lead in running and organising health services. These are all complex tasks, many of which could be seen traditionally as medical roles. This shows that nurses are an important group in skill mix, taking on new and enhanced roles, so their views are important. However, primary nursing has also been subject to direct managerialism through budgetary decentralisation and cost-effectiveness reviews. The main example is the 1992 Value for Money report on district nursing skill mix (NHS Management Executive, 1992) which recommended radical changes to the mix of grades in district nursing, including a 50% reduction of higher graded nurses.

From this short analysis, professional views can be seen to remain important because of their continued powerful position in the NHS. However, it has been argued by some authors that professional dominance is being eroded. Deprofessionalisation may be taking place as a consequence of routinisation of tasks, increased consumer pressure and technological changes which give people wider access to knowledge (Powell *et al*, 1999). Examples which could, and are beginning to affect primary care include technological developments such as over the counter blood pressure, diabetes and pregnancy tests. The internet, as a technological development, has also made access to information which was previously the preserve of professions much easier. This empowers patients thereby shifting the power balance.

1.4.3 Management perspectives

Management are important as shapers and resourcers of services. Most, but not all, positions which involve shaping and resourcing services are held by 'managers'. For example, in the Department of Health it is civil servants or policy leads who shape services. It is therefore important to use the wider term 'management' in this study to refer to a function rather than a group of staff.

The importance of management in the NHS and other welfare services started in the mid-1980s to the 1990s, when 'new managerialism' was introduced to tackle perceived inefficiency and ineffectiveness (Gray and Jenkins, 1993). It moved public sector organisations towards a more corporate, private style and managers were appointed across the NHS, replacing administrators (Gray and Jenkins, 1993). Prior to the 1980s, the public sector was predominantly professionally organised, with the administrative function assisting professions. The introduction of managers can be seen as a way of controlling professional power (and resources) and it could be argued that managers have now become the dominant power in the NHS, or are at least a group with substantial power, with control over resources and allocation (Kearins, 2000). It is therefore important to consider the perspectives of management on the topic of skill mix in primary care.

Management is important in policy terms, occupying key positions throughout the policy process levels which are outlined in figure 1.2. Management at the systematic level agree broad policy goals and negotiate resources for the NHS. It is at this level that civil servants and policy leads influence the process, as opposed to 'managers'. At the programmatic level, strategic health authority (SHA) managers determine priorities, allocate resources and manage local performance. In Primary Care Organisations, including PCTs, managers determine the way local services actually operate. At the instrumental level, where policy is made and implemented, there is still a management influence – practice managers – although GPs also have an important role in management decisions. When studying management, it has been noted that views held by management at national and regional levels may be subject to politics rather than expertise or adding to knowledge (Hull *et al*, 1999). However, it is still considered useful for them to be included in the discussion, understanding that they may bring a political dimension to the process.

Figure 1-2: Policy process levels in the NHS

1. The systematic level shapes the health system overall; the Department of Health may be seen at the systematic level in the UK. The role of the Department is primarily to agree broad goals of health policy, negotiate with the Treasury, allocate the overall NHS budget, liaise with other Government departments and negotiate with professions regarding policy proposals. However, it can be argued that government policy making is much less certain than in previous administrations and that there is no “blueprint” for primary care, rather a general direction for the NHS. However, the centre retains a powerful role over budgets and the quality of services. It is at the systematic level that the majority of ‘core’ functions are carried out: strategic thinking, policy making, setting objectives and standards, co-ordinating the purchase of services, and overall budgetary control.
2. The programmatic level is concerned with deciding health priorities and resource allocation at macro level. The programmatic level may be seen to be the Strategic Health Authority. Strategic Health Authorities formed to: “lead the strategic development of the local health service and performance manage PCTs and Trusts” - although development and accountability may be seen to be incompatible! Strategic Health Authorities are somewhat removed from specific roles in primary care policy, although their decisions will filter through.
3. The organisational level is concerned with the way health services operate, such as the organisation and management of primary care organisations. The organisational level involves the production of services. Roles blur here as practices are involved in delivery and PCTs are also involved in organisational decision.
4. The instrumental level is where management policy is ‘made’ and relates to the implementation of services. The GP practice can be seen at the instrumental level, where policy is made in relation to service delivery. However, ‘practices’ can be seen as premises, managerial units, and sites for service delivery. As managerial units, GP partnerships act not only as professionals but also managers, employers and commissioners; their employment role is increasing, with more nurses and managers being employed by GPs. Patients most readily identify the practice as unit of service delivery, dominated by registration with a GP; however, GPs work is increasingly reshaped by primary care nurses and other attached staff.

Source: Adapted from Taylor-Gooby and Lawson, (1993); Peckham and Exworthy (2003)

1.5 Definitions

Definitions are often not uniform and the terms skill mix and primary care may be used in different ways. It is therefore important to define how these terms are interpreted and used here. To consider issues of interpretation, Speel (1997) developed an interesting framework for the analysis of policy. The concepts of interaction, replication and lineage from biological evolutionary theory are used. Speel notes that policy processes take place in an administrative structure - an institution - where rules stipulate which actors have the power to make decisions, write down proposals and influence decision-makers. In institutional systems, policy making takes place in an environment where it is decided which ideas and actions (memes) end up as policies. However, difficulties of selection interaction occur when there are differences of opinion on what a term, or meme, means. Memes can also change meaning over time, and changes are termed lineage. When considering the definitions (memes) of primary care and skill mix, issues of selection interaction and lineage will be noted.

1.5.1 Primary care

It is not easy to define primary care, not least because the nature of primary care is changing from primary medical care to primary *health* care (Peckham and Exworthy, 2003). This is an example of lineage in policy, where a term changes meaning over time (Speel, 1997). Primary medical care refers to care delivered by GPs and their teams, whereas primary health care is a

broader concept, involving health services directed towards the needs of a community. Primary care is not so closely associated with general (medical) practice and this change can be linked to skill mix, where traditional professional and organisational boundaries blur.

In the broadest sense, primary health care can include self-care and any provider who is the first point of contact, offering holistic, personal care such as pharmacists, NHS Direct and walk-in centres (Audit Commission, 2001; Gregory, 2002). Primary medical care tends to focus on GPs and their directly employed team of practice nurses, managerial and administrative staff. However, district nurses and health visitors are increasingly included. It is noted that the reason primary care may be so difficult to define is that it means different things to different people, and it is unique in every locality and in every country (Gregory, 2002). This is an example of selection interaction, where different meanings are applied to a term (Speel, 1997).

Starfield's (1994) definition of primary care has been widely accepted and is often quoted:

“Primary care is first contact, continuous, comprehensive, and co-ordinated care provided to populations undifferentiated by gender, disease or organ system.” (p. 1129)

This is a suitably broad definition, focusing on primary health care, but there are other ways of recognising primary care. These include a set of activities, a level of care, a strategy for organising health care, and a philosophy underpinning health and health care (Peckham and Exworthy, 2003). Coulter (1995) notes that Starfield's definition of primary care may be being blurred

through skill mix, as procedures are transferred from hospitals to community settings and doctors and nurses develop specialist skills to provide extra services in the practice setting.

In this study, the term primary care focuses on primary medical care. That is GPs, their directly employed team of practice nurses, managerial and administrative staff, and community nurses who are attached to practices. This is because in the area being studied, these professionals are considered to be core to the primary care team. Other services and professionals are considered for the impact they have on the general practice team, for example, physiotherapists and podiatrists.

1.5.2 Skill mix

Having explored the definition of primary care, skill mix is another term that is widely used and has different meanings and is itself undergoing rapid and substantial change. The National Primary Care Research and Development Centre note that:

“Skill mix is a term without precise definition which is used variously to refer to the:

- *mix of disciplinary groups involved in the delivery of a service;*
- *mix of skills within a given disciplinary group;*
- *mix of skills possessed by an individual.*

(Halliwell *et al*, 1998, p. 3)

They go on to identify two conceptually different ways in which skill mix in primary care can be perceived:

“Delegation/Substitution:

Task(s) formerly performed by one type of grade or professional are transferred to a different type or grade of professional. Skill mix change in British primary care is largely focused on the transfer of tasks from highly qualified, expensive professionals to less highly qualified, cheaper professionals. Examples include task delegation from GPs to senior nurses and from senior nurses to junior nurses or nurse assistants. The intention is to reduce costs and achieve service efficiency.

Diversification:

The range of services provided within primary care is enhanced through recruitment of new types of professionals or through the acquisition of new skills by existing professionals. Examples include the addition of practice counsellors and the introduction of clinics for minor operations in general practice. The intention is to fill previously unmet health needs and/or replace services previously provided within hospital or other settings.”

However, delegation/substitution and diversification are not mutually exclusive. Skill mix developments are by their nature complex and can involve combinations of, for example, doctor to nurse delegation/substitution and diversification (or complementation). Nurses may substitute for doctors and release doctor time or resources, complement doctors and enhance services in certain areas such as dermatology, or undertake additional tasks to meet previously unmet need (Kernick and Scott, undated article). Richardson (1999) notes that true substitution of doctors by nurses may not actually occur, because increased roles for non-medical staff tend to result in service development or enhancement rather than substitution. This theme is not exclusive to doctor/nurse substitution though. Although more services are being provided from primary care, it does not seem to be resulting in a reduction in demand for secondary care services (Coulter, 1995).

For the purpose of this study, the working definition of skill mix includes the mix of professionals providing services and the skills held by those professionals, collectively and individually. The outcome of such skill mix can be delegation, where tasks are transferred between grades and types of professionals, and diversification where new types of professionals join the team, or existing professionals acquire new skills to enhance the range of services offered.

1.6 Methodology

The methodology to be used is determined by the research aim and objectives. The purpose of the study is to understand and analyse human experience in a specific social context: perspectives on skill mix in primary care in Torbay. It also aims to examine the issue from different perspectives. The methodological approaches that will be taken to achieve the purpose include ethnography at home, case study design and questionnaire surveys.

To improve understanding, it is intended that a mix of focus groups, interviews and questionnaires will be used. The methodology chapter explains the detail behind the combined methodologies. The methods used are also guided by how much is known already about the subject, derived from the literature review. The review identifies a number of key issues that help to focus what is being studied and how the research is to be undertaken. The key themes emerging relate to what influences perspectives, how the term skill mix in

primary care is interpreted, service issues, drivers for change and issues specific to each profession.

In terms of patient perspectives, the research which has been undertaken is largely quantitative and does not cover skill mix in primary care as a complete topic. The focus for the initial stages of the patient research will be qualitative, to discover more about patients' understanding and interpretation of skill mix. This will then be triangulated with a quantitative study as a secondary process, to test the emerging views. Focus groups will be held, with key themes followed up by interviews, and the results tested through a questionnaire survey. There is already a substantial evidence base covering professional views on specific aspects of skill in primary care. It is therefore considered to be most appropriate to take a quantitative approach initially, to test the current evidence base. This will be followed by a qualitative approach, to go into more detail where views differ between professional groups or where findings differ from current studies. This stage of the research will start with a questionnaire survey, to be followed up by interviews. The literature on management perspectives shows little prior research. For this reason, a purely qualitative approach is taken. This will allow for a more thorough investigation into what influences views, and follow up on issues raised through the patient and professional stages, and in the literature. In-depth interviews are held to achieve this.

Throughout the research, some attempt is made to explore patient views from skill mix and traditional practices in Torbay, and the samples and results

reflect this. In terms of data collection and analysis, all the interviews were tape-recorded and transcribed. The transcripts were read several times to identify significant remarks or observations, to review and refine key words and codes, and make connections. For the questionnaires, the data were input into a pre-designed coding frame on the Statistical Package for Social Sciences (SPSS) for Windows software, and a number of exploratory and confirmatory tests were run on the data.

1.7 Boundaries of the research and key assumptions

This section establishes the boundaries of the research. The section on the aim and objectives states that the focus of the research is to consider the perspectives of patients, professionals and management on skill mix in primary care. The section on definitions identified that skill mix in primary care in this study is focused on delegation and diversification between GPs, their directly employed staff, and community nurses. Other professionals and services are considered if they have a significant impact on the core primary care team.

Considering the participants, the research is carried out predominantly in Torbay. The patients are registered with practices in the Torbay PCT area. Primary care professionals – GPs, nurse practitioners, practice nurses, health care assistants, district nurses and health visitors – working in Torbay practices are involved. Practice and PCT managers from Torbay are involved. In addition, management from the South West Peninsula SHA and

the Department of Health are involved to allow for a consideration of views across the policy process levels outlined in figure 1.2.

It is considered useful to state the profile of Torbay PCT, to allow other researchers to consider the generalisability of the results to their area. This is done by showing the key demographic and socio-economic factors in Torbay, the morbidity profile, and the nature of the practices in Torbay. It is important to note at this point that research into primary care may not be easily generalisable to other areas because primary care has been identified as meaning different things to different people, and is unique in every locality and country (Gregory, 2002).

The demographic and socio-economic profile of Torbay in comparison to the rest of the south west and England is shown in table 1.1.

Table 1-1: Demographic and socio-economic profile of Torbay, compared with England and the south west

<i>Factor</i>	<i>Torbay</i>	<i>England</i>	<i>South West</i>
Persons per km2	2103	385	211
Ten year population change (%)	7.1	3.9	5.9
Households with no car (%)	27	27	20
Average age (years)	43.2	38.6	40.6
Working age (%)	72.9	75.1	78.8
Male life expectancy (years)	76.4	76.6	77.8
Female life expectancy (years)	81.7	80.9	82
Non-white ethnicity (%)	1.2	9.1	2.3
Teenage conceptions (per 1000 women aged 15-17)	43.8	42.4	35.5
Pupils achieving 5+ GCSE passes (%)	52.7	55.8	56.5
Infant mortality (per 1000 live births)	5.62	5.42	4.77
Average full time pay (£)	19878	27682	24434
Unemployed (%)	5	4.9	3.5
Average house price (£)	178491	202369	197201

Source: Government Office South West (GOSW) regional intelligence team (2006)

The table shows that Torbay is a densely populated area, with a rapidly growing population. The population is older, and subsequently there is a lower proportion of those of working age. The proportion of those from an ethnic minority is below average. It is important to state this as factors such as age and relative travelling distances can influence patients' views on services. Socio-economic factors, including levels of education and employment status, can also influence views on services. The rate of pupils achieving five or more GCSE passes is below average, and the rate of teenage conceptions above average. The average wage and house prices

are relatively low. The number of households with no car is the same as the national average, as is the percentage of those who are unemployed.

Table 1.2 shows disease prevalence (morbidity) in Torbay, compared with the South West Peninsula SHA (Devon and Cornwall) and England. It is useful to show this comparative information as differing levels of disease prevalence can indicate the extent to which skill mix develops.

Table 1-2: Disease prevalence in Torbay, compared with the South West Peninsula SHA and England

<i>Disease prevalence (%)</i>	<i>Torbay</i>	<i>England</i>	<i>SWPSHA</i>
Coronary heart disease (CHD)	4.7	3.6	4.1
Left ventricular dysfunction (LVD)	0.5	0.4	0.5
Stroke	3.1	1.5	2
Hypertension	14	11.3	12.9
Diabetes	3.6	3.3	3.4
Chronic obstructive pulmonary disease (COPD)	1.5	1.4	1.3
Epilepsy	0.7	0.6	0.7
Hypothyroidism	2.8	2.2	2.7
Cancer	0.7	0.5	0.6
Mental health	0.6	0.6	0.6
Asthma	7	5.8	6.3

Source: Quality and outcomes framework (2004-5)

The table shows that Torbay has relatively high rates of CHD, stroke, hypertension and asthma. Rates of LVD, diabetes, COPD, epilepsy, hypothyroidism, cancer and mental health are close to the local and national averages. Relatively high rates of asthma and diabetes could suggest a greater role for nurses, as they are increasingly taking on this work. There are increasing numbers of GPs with a special interest (GPSIs) in some key disease areas, for example CHD and diabetes, and high rates of these diseases may drive the development of GPSIs.

Table 1.3 shows the characteristics of local GPs and their practices, compared with the south west and England. This information helps to show the extent to which there is scope within the local practices for skill mix development, and the relative quality of services.

Table 1-3: Torbay GP and practice characteristics, compared with the south west and England

<i>GP and practice characteristics</i>	<i>Torbay</i>	<i>England</i>	<i>S West</i>
Average list size ¹	1497	1666	1437
% full time GPs ¹	73%	78%	N/A
% PMS practices ¹	55%	43%	N/A
Practice staff per practitioner ¹	2.8	2.3	N/A
Practice nurses as a % of practice staff ¹	17.1%	18.8%	N/A
Average QOF points/practice ²	1022.1	958.7	1001.4

Source:

- 1 General and Personal Medical Services Statistics England and Wales (2001-2004)
- 2 Quality and outcomes framework (2004-5)

The table shows that the average list size per full time GP in Torbay is well below the national average, but above the regional rate. The proportion of GPs who work full-time is lower than the national rate. This helps to indicate the scope for development of GPs with a special interest through skill mix. A higher proportion of practices in Torbay have a Personal Medical Services (PMS) contract, and there is more staff per practitioner than the national average. This suggests high levels of practice development in Torbay. Achievements against the quality and outcomes framework in Torbay were well above both national and regional rates, suggesting high quality primary care services in Torbay.

1.8 *Study outline*

This section briefly describes the outline of the research report by chapter.

- Chapter 2 is the review of the literature relating to skill mix in primary care from patient, professional and management perspectives. This chapter aims to present and critically analyse existing research, to provide a framework and further justification for the research through identification of deficiencies, and limits of the evidence base. The key themes, which are used as headings to structure the chapter, include influences on perspectives, interpretation of the term, service context, drivers for change, and professional issues. An emerging model for the body of knowledge relating to skill mix in primary care is presented at the end of the chapter.
- Chapter 3 is the methodology chapter which outlines who was involved in the research and what was actually done. It details the used of combined methodologies including case study design, ethnography at home and questionnaire surveys. There is a description of the survey and qualitative sampling methods used. The interview, focus group and survey methods used to collect the data are described and then analysed. A description of how the qualitative data were analysed through thematic analysis and the questionnaire survey through exploratory and confirmatory data analysis is given. Consideration is also given to ethical issues, validity and reliability.

- Chapter 4 is the results chapter where the findings (and discoveries) of the research are presented. The results are presented as factual statements on the outcomes of statistical analyses, supported by figures and tables as appropriate. Emergent themes are supported by quotations and observations from participants. The emergent themes are used as headings to structure the chapter, and include interpretation of the term 'skill mix in primary care', service issues, drivers, issues determining skill mix, and profession specific findings. The key findings from the results are summarised in figures at the end of the chapter.
- Chapter 5 is the analysis and discussion chapter, where the results are analysed in terms of the research aim and objectives. The findings are also considered alongside the existing body of knowledge. The chapter specifies where this study supports existing research and where it reaches different conclusions. New findings emerging are also shown.
- Chapter 6 is the conclusions chapter which draws conclusions about the research aim, and how well the research has met the objectives. The contribution of the research is stated. Implications for policy and practice are suggested. The chapter finishes by suggesting further areas for future research to complement this study.
- Chapter 7 is the reflective chapter, allowing the author to explore the research experience through 'reflection on-action'. The chapter focuses on key issues relating to the experience including generalisability, practical issues and the use of key informants. Limitations of the research are also considered here.

- The references and bibliography are included at the end of the thesis. These are followed by the appendices which include supplementary material such as letters of permission from ethics committees, interview schedules, questionnaires, an interview transcript, and an overview grid.

1.9 Summary

This chapter has laid the foundations for the study. It has introduced the background to the research area, stating the importance of health services, primary care and skill mix. Consideration is given to the existing research, with the conclusion that little is currently available. The aim of the research, to contribute to the understanding of skill mix in primary care by studying the perspectives of patients, professionals and management, is stated. Specific knowledge, skill and attitudinal objectives are then presented to achieve the aim.

The justification for undertaking the research is given, highlighting why the views of recipients of services (patients), providers (professionals) and shapers and resourcers (management) are important. Differing definitions of 'primary care' and 'skill mix' have been explored and the way they are interpreted in this study stated.

The rationale for the combined methodologies of ethnography, case study design and questionnaire surveys are briefly introduced. The boundaries for the research – in terms of the nature of Torbay as an area, demographics and

practice characteristics – are analysed and discussed. The structure of the study, with a brief overview of the contents of each of the chapters, is then presented. On these foundations, the study can now proceed with a detailed description of the existing research in chapter 2.

2 Literature Review

2.1 Introduction

This chapter aims to build a theoretical foundation upon which the research is based. It does this by reviewing the relevant literature to identify issues worth researching and which have not been answered by previous researchers. The literature review therefore is not an end in itself, but a means to the end of identifying the worthy research issues, which are shown in the emerging model of the body of knowledge at the end of the chapter. This review relates to patient, professional and management perspectives on skill mix in primary care. The literature search strategy is in appendix 1.

In attempting to take this chapter beyond being merely descriptive of the current literature, the chapter sub-headings are derived from the key concepts emerging from the literature. The sub-headings relate both to the issues emerging from the literature and to the categories of the literature reviewed, i.e. patients, professionals and management.

The themes that form the main headings to be discussed are:

- Interpretation of the meaning of 'skill mix in primary care';
- Influences on patient, professional and management perspectives;
- Services issues in skill mix in primary care;
- Drivers for change and development in skill mix;
- The different health professionals involved in skill mix.

2.2 Interpretation of the meaning of 'skill mix'

A number of themes in the literature seem to relate to how the term skill mix could be interpreted. Perhaps not surprisingly, there is little in terms of patients' understanding and interpretation of skill mix. The main studies that are relevant relate to patients' experience and knowledge of different services and professional roles. The focus in the literature was on the meanings given to skill mix by professionals. Professionals identified factors such as knowledge of the role and contribution of others, teamwork, personal and professional development, medical models of care, and concerns around the loss of the generalist role.

2.2.1 Knowledge and understanding

The literature review found that patient knowledge and understanding was an issue in skill mix, particularly with regard to the greater use of nurses. However, the potential lack of knowledge and understanding of others' roles also emerged as problematic for professionals, and this could inhibit the use of a range of professionals through skill mix.

With regard to patients' views on nurse services provided through skill mix, research has shown that patients who used walk-in centres and a nurse-run PMS pilot practice, were more positive about them when they had actually

experienced them (Chapple *et al*, 2000; Chapple *et al*, 2001). This can be linked to findings that patient perspectives on health services can be affected by their knowledge and use of services (Mangen and Griffith, 1982; Bond and Thomas, 1992; Chambers, 1998; NHS Executive, 1999). Patients do seem to have a lack of knowledge on the role and contribution of other professionals, such as nurses. They have been found to be unclear of the role of nurses in their care, although they guessed that the doctor carried out medical functions and that the nurse was the guardian/advisor (Staniszewska and Ahmed, 1998). The Forum on Teamworking in Primary Care (2000) has identified that this is an issue. They have recommended that patients need more and better information on the skills and knowledge of different health and social care professionals, what they do, and the links between them, which would positively influence skill mix.

However, it is not only patients who experience difficulties understanding the changing roles of health professionals. For professionals themselves, role boundaries are becoming increasingly blurred, and role identity and understanding is an increasing problem (Hutchinson and Gordon, 1992; English, 1997; Farrell, 2000). Taking the role of the GP, this is not easy to define and nurses have identified that GPs may need a clearer definition of their role, before they feel able to delegate to others through skill mix (Chambers, 1998). One of the few clearly-defined areas of the GP role is being the first point of contact for patients, but this is the most often-cited area for delegation (Chambers, 1998). Diagnosis and treatment seem to fall within the GP's role and as a result, many are opposed to others, such as physician

assistants or nurse practitioners, taking this on through skill mix (McKinstry and Gillies, 1998; Walsh and Walsh, 1998; Hutchinson *et al*, 2001). The Audit Commission (2002) has suggested that day-to-day work could be devolved to nurses through skill mix. However, GPs could feel threatened by this. A study of GPs' views on nurse practitioners showed that they do indeed feel threatened and this is forming a barrier to the development of the nurse practitioner role (Wilson *et al*, 2002).

Understanding the roles of different types of nursing staff can also be problematic. GPs have a good understanding of the medically-orientated work of practice and district nurses, but they can be unclear about the roles of nurses with preventive public health perspectives, such as health visitors and community psychiatric nurses (CPNs) (Boothroyd Brooks, 1973; Dyke, 1984; McClure, 1984; Thomas and Corney, 1993; West and Poulton, 1997). This can potentially limit the extent to which a wider range of nurses are involved in skill mix in primary care. Within nursing, there is also concern about role confusion. For example, the nurse practitioner role, which is relatively new to the UK, still lacks an accurate description (Kerfoot, 1997; Walsh *et al*, 1999).

2.2.2 Delegation

When considering how skill mix may be defined or interpreted, delegation is frequently identified in the literature. It most commonly refers to delegation between doctors and nurses, and less frequently between nursing grades.

The term can mean that work is moved from one team member to another, usually in a downward direction.

There are other terms found in the literature which are also used including 'substitution', 'allocation' and 'reconfiguration'. Substitution is taken to mean that the work of doctors and nurses are separate and different and that tasks should be allocated to nurses only if they can perform them more efficiently, whilst maintaining quality (Zwarenstein *et al*, 1997). Allocation suggests that work is distributed equitably and according to skills (Richards and Tawfik, 2000). Reconfiguration is linked to practitioners producing hierarchies of appropriateness – of work, patients and personnel – which can lead to new distributions of what would have previously been medical work (Charles Jones *et al*, 2003). This suggests that 'delegation' may be interpreted differently, and produce different outcomes through skill mix.

There is a strong focus on doctor to nurse delegation in the literature. However, it has been noted that although doctors may complain about their workload, they can be reluctant to delegate tasks to others (Bowling, 1981). The Royal College of General Practitioners (RCGP) has also stated that much of GPs' work could *not* be delegated (RCGP, 1998). Some of this reluctance to delegate may be due to doctors retaining legal responsibility for delegated tasks (Bowling, 1981; McKinstry and Gillies, 1988; Georgian Research Society, 1991; Magennis *et al*, 1999; Richards and Tawfik, 2000). Despite these difficulties though, some studies have found that GPs seem to be increasingly willing to delegate some tasks to other professionals. Demand

for immediate care, skin complaints, respiratory tract problems, screening, contraception, prescribing, advice and musculo-skeletal problems have been identified as possibilities for delegation (Marsh and McNay, 1974; Jenkins Clarke and Carr-Hill, 1996; Illiffe, 2000). Practice nurses and nurse practitioners are the professionals that GPs are most willing to delegate tasks to, but others have been identified including counsellors, social workers, receptionists, behavioural therapists, pharmacists and management (Richards and Tawfik, 2000). However, nurses do not always agree that delegation is a good thing. Some are of the view that extended roles may be used as an excuse for doctors to offload mundane tasks. There is also a view that nursing should be about practical help and not delegated medical tasks, which reinforce the nurse as the doctor's assistant (Bowling, 1981; Magennis *et al*, 1999).

2.2.3 Teamwork

Skill mix is often seen as synonymous with teams and teamwork in primary care. Both topics have become increasingly important, as healthcare becomes more complex and no longer just in the gift of doctors (Burns, 1969; Georgian Research Society, 1991; Audit Commission, 2002).

The continued focus on primary health care teams in the literature may be due to the fact that studies have found that there are difficulties achieving true teamwork in primary care, which scores low on measures for functioning and orientation (West and Poulton, 1997). There are also structural and attitude

difficulties (Forum for Teamworking in Primary Health Care, 2000). The effectiveness of teams can be linked to a number of variables which can be grouped together under the headings of inputs, processes and outputs (West, 1996; Huczynski and Buchanan, 2001). Considering the literature relating to professionals and teamwork in primary care, much emphasis is given to the inputs to group work, such as team size and membership, but relatively little is known about processes or outputs.

At this stage it is also worth noting that the terms 'team' and 'group' are often used inter-changeably, although they have different characteristics. Primary health care teams include elements of both work groups and real teams. Members often act on their own, only interacting socially, but they should be committed to a common purpose and members' skills should be complementary (Katzenbach and Smith, 1993). 'Real teams', with a common purpose and complementary skills, are most likely to develop where there are a small number of members, a meaningful purpose, clear allocation of tasks, and the output is unachievable by individuals working alone. The scope for development of real teams in primary care will differ. Skill mix aims for the right mix of skills, and the purpose of the team means something in terms of patient care. However, there is also a tendency for the size of teams to grow through skill mix to the extent that they may more accurately be described as organisations. There is also an increasingly diverse mix of professionals, employed by different people, so clarity and accountabilities can be issues. Therefore, skill mix can move groups towards real team status but may

introduce new barriers, including the size of the team and confusion over who does what.

An interesting factor relating to primary care teams is that the members have different employers. This can cause problems and limits the potential for teamwork and skill mix because of diverse management, different cultures within each organisation, and competing funding arrangements (Reedy, 1981; Salisbury, 1991; Hutchinson and Gordon, 1992; Ross and Tissier, 1997; Edwards, 2000; Forum for Teamworking in Primary Health Care, 2000). GPs presently employ practice nurses and agree that they should continue to do so (Fox *et al*, 1996). Practice nurses seem to like being employed by GPs, because they feel they have more flexibility and can negotiate their role (Atkin and Lunt, 1996). However, employment issues such as job descriptions, contracts, and pay are common sources of dissatisfaction (Atkin and Lunt, 1996). Other primary care nurses do not want to be employed by GPs, although the practice has been suggested by GPs as a logical focus for the employment of community nurses who are employed by NHS or primary care trusts (Salisbury, 1991; Jackson, 1994; Monkley Poole, 1995).

Management has a role in helping to increase the effectiveness of primary care teams, as a number of definitions of management show. The role of management to control the activities of a team (Oxford English Dictionary), to co-ordinate and control the work of organisations (Dictionary of Sociology, 1999), and coordinate/combine disparate efforts (Collins, 2000) are all examples. There may also be an explicit role of a 'team manager' who should

draft job descriptions, interview, appoint, induct, assign and review work, and ensure quality (Ovretveit *et al*, 1997). Management, as a profession, are also changing to become more team focused. The early scientific management approaches of Taylor (1911) and Fayol (1949) were based on planning, organising, commanding, co-ordinating and controlling. The 'new manager' needs to be more people-orientated, is motivated by goals and depends on relationships to satisfy the organisation (Buchanan and Badham, 1999). The 'new leader', as opposed to manager, relies on strategies such as team-work and multi-skilling.

2.2.4 Personal/professional development

Skill mix has been linked to improved job satisfaction and morale for professionals. Some practice nurses' think that taking on tasks delegated from doctors through skill mix makes nursing more interesting and increases job satisfaction (Bowling, 1981; Leonard, 1999; Magennis *et al*, 1999). Some GPs also favour the GP specialist role in skill mix as it provides them with personal development and increased job satisfaction (Jewell, 1997; Dobson, 2000; Department of Health, 2002). Despite this, there is widespread evidence in the literature of low morale throughout primary care, particularly amongst community nurses (Jenkins-Clarke *et al*, 1997; RCGP, 1998; Audit Commission, 2002). There is also some evidence that the use of unqualified and support staff through skill mix increases stress and reduces job satisfaction for nurses (McKenna, 1995; Keys, 1997). Skill mix can therefore

provide opportunities to develop and improve satisfaction, but it may also have the opposite effect.

2.2.5 Models of care

In interpreting skill mix, and how primary care has developed over the last decade or so, the impact of the 'medical model' of care is highlighted in the literature. Nurses in particular have experienced difficulties defining medical and nursing care and for some, taking on what they see as 'medical' tasks. What constitutes nursing and medicine has been the subject of discussion for both professions.

Charles Jones *et al* (2003) suggest that GPs are being reconfigured as medical specialists or consultants, moving away from general practice as social medicine. They point out that medical work is increasingly distributed across the primary care team through skill mix, reducing general practice work to biomedical problems or tasks. As nurses and others assume more physician responsibilities, it can also become more difficult to define nursing and some see nursing developing as the lowest part of the medical pyramid (Casey and Smith, 1997; Jacox, 1997). The focus for many of these discussions has been the nurse practitioner (NP) role. Some support the role, as it allows medical and nursing functions to be combined, although to others it is a retrograde step, in opposition to the caring ethic of nursing (Trnobanski, 1994; Chambers, 1998; Leonard, 1999; Walsh *et al*, 1999). A more liberal view is that nursing and medicine should be seen as a part of a continuum,

where cure and care are part of the relationship which shifts depending on the context (Nolan, 1995; Kernick, 1999).

2.2.6 Specialisation

Not only is there tension between medical and nursing models of care as skill mix develops, there is also tension between the 'generalist' view of general practice and greater specialisation, particularly amongst GPs. It has been noted that the development of GP specialists should be clinically and cost-effective, but evidence is scarce (Rosen *et al*, 2003). Many studies focus on consultant outreach care, where clinics are popular with patients but costs are higher (Gosden *et al*, 1997).

Notwithstanding this, a key part of the NHS Plan is to have up to 1000 specialist GPs taking referrals from other GPs for ophthalmology, orthopaedics, dermatology and ENT (Department of Health, 2002). Professionals' think that improved patient access to services through GP and nurse specialists is an advantage of the schemes, as is professional development for those involved (Jewell, 1997; Dobson, 2000; Pathmakanthan *et al*, 2001; Ward, 2003). Some GPs are keen to point out, however, that specialists should not jeopardise the 'core business' or degrade general practice (Dobson, 2000; Audit Commission, 2002). However, patient care may be enhanced if one person carries out a specific procedure or test (Roland, 1995). Further, Mont and Towse (1995) feel that the increasing number of specialists increases, rather than decreases, the demand for

generalists dealing with undifferentiated health problems, the management of non-life threatening conditions and preventive care.

The increasing drive for specialisation can be linked to 'scientific management' principles, first identified by Taylor (1911), Follett (1941) and Fayol (1949). Scientific management established increased specialisation at work, breaking up 'traditional' working practices into component parts to be re-allocated to a number of workers. By working together, the output could be more than each skilled person could produce. Cost-savings occurred because fewer highly skilled individuals were left to reward. A contrasting approach to scientific management is that based on Japanese management principles. This is characterised by decentralised plans, the allocation of activities through group decision-making, internal motivation, mutual co-ordination through teamwork, and normative control based on trust and teamwork (Collins, 2000). Although scientific and Japanese management may be seen as at either end of a continuum, modern approaches to skill mix include both. Greater specialisation occurs, with lower skilled workers taking on previously skilled tasks but within a climate of teamwork and group decision-making.

2.3 Influences on perspectives

A number of themes relating to what influences views on health services, including some aspects of skill mix, were found. The literature includes a number of studies of patients' perspectives on health services. Patients'

perspectives on services are sometimes termed 'satisfaction' in the literature; that is, the extent which patients' felt their needs and expectations were met. The literature focuses on the effects of age, social class, gender, health status, and depth of relationship with care professionals. None of the studies related to patients' 'satisfaction' with skill mix. However, some inferences can be drawn as to how particular characteristics influence preferences for services which may be delivered through skill mix. These include the acceptability of delegation to other professionals, existing professionals taking on new roles and new professionals joining the team.

The professional studies briefly explore the influence of gender on views of delegation. The management literature highlights the influence of 'new managerialism' values on service matters, the diversity of management backgrounds in the NHS (including clinical), history, and organisational relationships.

2.3.1 Patients

The age of a patient was one of the most frequently cited influences on views on services (Treadway, 1983; Hull and Hull, 1984; Grogan *et al*, 1995; Jenkins-Clarke *et al*, 1997; Howie *et al*, 1999; Larsson, 1999; Department of Health, 1999; Crow *et al*, 2002; Department of Health, 2002). Older people may be more resistant to skill mix as they wanted more traditional services, including continuity of care, personal lists, and GPs giving advice, taking blood and giving injections (Lewis, 1994; Baker and Streatfield, 1995;

Williamson, 1995; Jenkins-Clarke *et al*, 1997). The difficulties this may hold for skill mix is emphasised by the Forum for Teamworking in Primary Healthcare (2000) who note that older people may be accustomed to an individual approach to care and therefore resistant to team-working and skill mix. In contrast, younger people are concerned about access to services (Department of Health, 1999; Forum for Teamworking in Primary Care, 2000; Department of Health, 2002). For younger people, skill mix involving nurse-led services at weekends or early in the mornings/late at night (Dobson, 1999) may help to meet their needs better. Chapple *et al* (2001) also found that young people were more likely to use walk-in centres, suggesting they may be less concerned about who they see so may be more likely to be happy with skill mix, which allows them access to other professionals.

Patients' health status, that is the conditions that they present with in primary care, influences the nature of the services they wish to receive. Hopton and Dlugolecka (1995) found that lifestyle help and advice, pain management and advice on welfare benefits were universally popular with patients, regardless of health status. These services may be provided through diversification in skill mix. However, for patients with chronic or serious illnesses continuity of care was most important, and these patients may find team-working and skill mix form a barrier to care (Freeman and Hjortdahl, 1997; Forum for Teamworking in Primary Care, 2000). Those with acute problems tend to be less concerned about continuity and prepared to see a range of professionals (Taylor, 2001). For those with acute problems, skill mix may provide more

prompt access to services and the opportunity to see a range of professionals.

Although it has been stated that there are few class differences in patient perspectives on services some preferences relevant to skill mix do emerge amongst the manual and non-manual social classes (Kaim-Caudle and Marsh, 1975; Department of Health, 2000; Crow *et al*, 2002; Department of Health, 2002; Bower *et al*, 2003). Nurses are valued by those in the manual classes because they find them easier to talk to, and skill mix involving the greater use of nurses may be advantageous for this group (Bowling, 1980). Those in paid work or full-time education find access to services difficult and skill mix developments such as greater use of the community pharmacy or quicker access to a range of professionals, may meet their needs better (Hassell *et al*, 1997; Department of Health, 1999; Department of Health, 2002).

Depth and quality of relationship are important to patients. Of relevance to skill mix, patients seem to enjoy good relationships with nurses (Baker, 1990; Crow *et al*, 2002). Shum *et al* (2000) also found patients were satisfied with practice nurse consultations for minor illnesses, in terms of the depth of the relationship which formed. However, in a study where patients were seeing the nurse for the first time, the depth of relationship was the worst scored aspect of care (Poulton, 1995). It is therefore important in skill mix that patients are allowed to see nurses on several occasions to build a satisfactory relationship.

Gender has been found to influence patients' perspectives on services. Women favour access to a female GP and continuity (Gray, 1982; Baker and Streatfield, 1995; Jenkins Clarke *et al*, 1997; Phillips and Brooks, 1998; Department of Health, 1999; Department of Health, 2002). Skill mix which enables quicker access to doctors, particularly female GPs, may therefore be advantageous. However, skill mix may also form a barrier to care and threaten continuity.

2.3.2 Professionals

GP views on various aspects of skill mix appeared in the literature. GPs most in favour of extended nursing roles in skill mix were found to be newly qualified, members of the Royal College of General Practitioners (MRCGPs), trainers and have a treatment room, a computer system, a practice manager and staff meetings (Robinson *et al*, 1993). Miller and Beckett (1980) also found that younger doctors were more positive about delegation.

The perceived complexity of consultations or illnesses has been found to influence GPs' views on delegation. GPs involved in increasingly complex consultations are less likely to consider delegating these whereas those concerned about the presentation of 'trivia' are more likely to want to delegate to other staff (Bowling, 1981; Jenkins-Clarke *et al*, 1997). Charles Jones *et al* (2003) notes GPs increasingly categorise patients in this way, with a consideration of the appropriateness of presenting with 'trivia', when patients

are categorised as medically interesting (or not), requiring the expertise of the GPs.

GPs' views on teamwork were found in the literature. It has been suggested that most GPs' choose to work in primary care because it provides autonomy. Teamwork, an important aspect of skill mix, can be seen to conflict with this (Pringle, 1992; NHS Confederation, 2002). GPs' views on teamwork and skill mix may also be influenced by the time they feel it takes and that skill mix/teamwork may threaten continuity (Boothroyd Brooks, 1973; Bowling, 1981; Clayson, 1993; Jenkins-Clarke *et al*, 1997; Chambers, 1998; RCGP, 1998). However, as more GPs work part-time, personal continuity may not be viable and continuity across the team for an episode of care is suggested as an alternative (Freeman and Hjortdahl, 1997; NAPC, 2000; Audit Commission, 2002). It has also been found that practice nurses may be resistant to teamwork, preferring autonomy (Pringle, 1992). However, other studies found that both teamwork and autonomy are important to nurses and most identify themselves as part of a team (Thomas and Corney; 1993; Eve *et al*, 2000; NHS Confederation, 2002).

Gender seems to have some influence on professional views on skill mix. Jacox (1997) notes that gender can influence group work and that the health care professions involved in skill mix, medicine and nursing, have traditionally been defined by gender. However, group dynamics are beginning to change; an early study on GP views found that well over half the GPs interviewed stated they would prefer to work with a female practice nurse (Miller and

Beckett, 1980), whereas now more doctors are women (Christensen and Abbot, 2000; Forum for Teamworking in Primary Health Care, 2000; Audit Commission, 2002). Therefore, views on GPs' willingness to work with both male and female nurses in skill mix may have changed.

2.3.3 Management

Many managers in the NHS were introduced as part of 'managerialism', which includes values relating to efficiency, economy and responsiveness (Peckham and Exworthy, 2003). It seems likely that these issues would form part of managerial views on skill mix in primary care. The views of managers, as with other groups, can also be influenced by their backgrounds. The majority of NHS managers come from health service administrative backgrounds, with around a third from medical and nursing backgrounds. However, some general practices, particularly fund-holders, did attract managers with non-NHS backgrounds because they were trying to 'break the mould' (Peckham and Exworthy, 2003). The background of a manager may consequently influence how they interpret and understand skill mix, particularly if as clinicians they have been involved as providers of services.

Management may also have a different focus than health professionals. Doctors and nurses tend to focus on individual patients as opposed to managers, who have to be responsible for the collective good (Cole, 2001). Different outlooks have been identified by Antrobus (1997) who presents management as scientific, rational, performance and outcomes driven, in

conflict with nursing which is identified as holistic, intuitive, humanistic and caring. When considering approaches to the implementation and development of skill mix, the background of managers and the different outlooks of clinicians and managers may produce conflict and differences in understanding. However, it can be argued that there is a continued need for clinicians and managers to think differently for the success of the health system (Edwards *et al*, 2003).

The level of a manager in the organisation can also influence their views on a range of topics, including skill mix. Recent research into management in primary care trusts shows two distinct, polarised styles between middle and senior managers (Marshall *et al*, 2003). Senior managers tend to adopt a directive style, challenging the norms and values of clinicians to deliver the political agenda which may bring about short term change but can also bring managers into conflict with doctors. Middle managers have been found to be more inclined to work with the prevailing cultures of general practice, trying to facilitate change from within rather than forcing it from outside. This is supported by earlier work by Atkin and Lunt (1996) and Mares (1998) who found that Family Health Services Authority (FHSA) managers were aware of the difficulties in intervening in general practice and attempted to 'influence' rather than 'direct'. These different styles have an influence on how management may seek to promote skill mix in primary care. Middle managers and those from FHSA backgrounds are likely to try to work with general practice and influence them to develop skill mix. However, senior

managers are more likely to wish to direct practices to change their skill mix, possibly to meet targets.

2.4 Service context

A number of issues pertinent to skill mix which can be classified as being part of the 'service context' were found in the literature, particularly in the patient studies. Matters which were important to patients included access to professionals with good communication and information-giving skills, the convenient location of services, preservation of continuity of care and adequate consultation lengths. Some aspects of these were also highlighted by professionals as important in skill mix.

2.4.1 Communications skills

It is important for patients to be able to communicate well with the health professionals they see (Chambers, 1998; Heywood, 2000; Little *et al*, 2001). Nurses have been identified as good in this respect and skill mix can involve the greater use of nurses (Reveley, 1998; Venning *et al*, 2000). Older patients, who may find it difficult to articulate their needs, find district nurses most approachable (Rapport and Maggs, 1997). However, GPs are also viewed as having good communication skills in comparison with hospital doctors (Murphy *et al*, 1992; Williams, 1994). Skill mix can allow patients with

specific conditions to see GPs with special interests rather than hospital doctors.

Patients also expect good communication between professionals, to reduce the requirement for the patient to be asked for the same information again. However, this does not seem to routinely occur (Ovretveit *et al*, 1997). There is clearly potential for skill mix which involves an increasing range of professionals to make inter-professional communication more difficult. The possible reasons for poor internal communications are alluded to in the literature. Primary care teams are growing in size as more professionals work alongside GPs through skill mix and this may threaten communication unless carefully co-ordinated and managed (Huczynski and Buchanan, 2001). Team size is important, as the more members in a group there are the more relationships can exist and greater levels of communications are required.

Communication between professionals may also be hampered by limited understanding of each others roles and by physical surroundings (Huczynski and Buchanan, 2001). To try and overcome this, the attachment of staff to GP practices through skill mix can increase collaborative working and communications (Hodgson, 1998). Nearness has also been found to be beneficial to work relations and teamwork (Reedy, 1981; Forum for Teamworking in Primary Health Care, 2000). Sharing the same building has been found to promote collaboration between GPs and attached staff such as district nurses, health visitors and CPNs. However, some GPs do not want health visitors attached to practices as some do not understand their role and

relatively few GPs were found to be interested in illness prevention (Burns, 1969; Dyke, 1984; McClure, 1984; Bond *et al*, 1987; Hasler, 1992; Hutchinson and Gordon, 1992; West and Poulton, 1997).

2.4.2 Location of services

The location of services is important to patients. Services provided in the home or community through diversification in skill mix are generally viewed favourably in terms of access, surroundings and familiarity (Gillam *et al*, 1995; Hindler *et al*, 1995; Wiles, 1997; Forum for Teamworking in Primary Healthcare, 2000; Barber *et al*, 2001). For example, a study on diabetes care found that patients saw integrated care for diabetes as advantageous in terms of time, continuity and reduced cost to them, although they mentioned lack of quality as a disadvantage (Diabetes Integrated Care Evaluation Team, 1994). Patients' think that services such as physiotherapy should be routinely available at the GP surgery, and practice-based Citizens Advice Bureaux (CAB) advisers are also popular (Surender *et al*, 1998; Galvin *et al*, 2000; Sherratt *et al*, 2000). Development of these services, and others, at the practice is possible through diversification in skill mix where additional professionals may join the team or GPs may take on work previously carried out in hospitals.

Primary care professionals also think that practice based services are useful and good for patients and favour diversification (Leese and Gillam, 2000). Doctors think that patients like improved access to services, such as outreach

clinics provided from the practice, and they feel that most patients do not need the wide range of diagnostic services in hospital (Gillam *et al*, 1995; Bailey *et al*, 1994).

2.4.3 Continuity of care

Continuity of care is important to patients and professionals and the introduction of a nurse or other health care professional through skill mix could be viewed as forming a barrier between doctor and patient (Bowling, 1981). For patients, 'seeing the same GP a lot of the time' is important and being seen by an array of providers raises concerns for some patients (Lewis, 1994; Jenkins Clarke *et al*, 1997; Chapple *et al*, 2000; Bower *et al*, 2003; Haggerty *et al*, 2003). There are few studies on nursing continuity, but Reveley (1998) raises an important issue that nurse practitioners triaging patients with self-limiting illnesses, which is a common skill mix development, do not get the chance to follow patients through. This can cause dissatisfaction for nurses and patients.

Despite the importance of continuity, visiting the same doctor may be seen as 'old-fashioned' and in opposition to the development of modern primary care (Gutherie and Wyke, 2000). There is some professional concern that NHS reorganisations intended to promote the development of general practice, such as group practices and drop-in centres, have reduced continuity (Bowling, 1981; Hull and Hull, 1984; Baker and Streatfield, 1995; Neuberger, 1998; Williamson, 1995; Jenkins-Clarke *et al*, 1997; Chambers, 1998; RCGP,

1998; Gutherie and Wyke, 2000). Although not explicitly mentioned, skill mix may also be seen as one of these developments. Proposals have been put forward to achieve continuity within existing policies. For example, larger practices could consider personal lists and dividing the practice into smaller clinical teams, with shared administrative and support functions (Baker and Streatfield, 1995; Forum on Teamworking in Primary Healthcare, 2000).

2.4.4 Consultation length

The organisation of consultations is important and patients like spending time with a health care professional and nurses have been found to consult for longer (Poulton, 1995; Reveley, 1998; Kinnersley *et al*, 2000; Shum *et al*, 2000; Venning *et al*, 2000; Department of Health, 2004). Skill mix changes which allow patients to see nurses as well as GPs can give them a chance to have longer consultations for specific conditions or treatments. Venning *et al* (2000) noted that the difference in consultation length may be at least partly due to the fact that nurses carried out more tests, particularly with regard to opportunistic screening.

Most patients feel GPs spend the right amount of time with them, usually five to nine minutes (Kaim-Caudle and Marsh, 1975; Department of Health, 1999; Department of Health, 2002). Where continuity exists, usually in smaller practices where the doctor knows the patient well, the consultation length is often less, with no apparent reduction in satisfaction (Campbell *et al*, 2001; Mechanic, 2001). Professionals see skill mix as an opportunity to allow

patients more time for consulting. The literature focused on the experiences of nurses who may allow GPs to spend more time with patients (Bowling, 1981; PMS national evaluation team, 2000). It is noted that nursing time may suffer as a result, however, the use of health care assistants (HCAs) and nursery nurses could help nurses find more time (Reeve, 1994; Seymour, 1994; Leonard, 1999; Magennis *et al*, 1999; Charles Jones *et al*, 2003).

2.4.5 Information-giving

Patients feel they need to receive high quality information and nurses are popular in this respect (Baker, 1990; Poulton, 1990; Lewis, 1994; Heywood, 2000; Department of Health, 2004). Greater access to nurses through skill mix can improve the patient experience in this area. Nurses are particularly popular in this respect in minor illness clinics (Reveley, 1998; Kinnersley *et al*, 2000; Shum *et al*, 2000). CPNs also score highly for information-giving (Paykel *et al*, 1982).

Patients have also expressed satisfaction with the information they get from GPs, although others felt they did not get as much information as they would have liked (Kaim-Caudle and Marsh, 1975; Baker, 1990; Grogan *et al*, 1995; Department of Health, 1999; Department of Health, 2002). Diversification through skill mix, where other services may be based at the practice, can improve access to information-giving services. For example, CAB advisers are popular for the information they give out on a range of issues, particularly benefits (Galvin *et al*, 2000).

2.5 Drivers for change

Some themes were found in the literature which appeared to have acted as drivers for skill mix changes. For patients, improving access emerged as very important. There is also an increasing move towards specialist roles, particularly for GPs. There are concerns about managing workload for GPs and nurses and making best use of limited resources, leading to critical appraisals of 'who does what'. These issues have been grouped under a heading of 'drivers for change' although they may also be seen as service issues or outcomes from skill mix. There is not a clear distinction for these complex factors; for example, the need to improve access to meet national targets could be a driver to develop skill mix but would also be an expected outcome.

2.5.1 Access to GPs and primary care professionals

Access to primary care, that is the ease of getting an appointment, is important to patients (Hjortdahl and Laerum, 1992; Grogan *et al*, 1995; Allen *et al*, 1998; Chambers, 1998). However, many have reported difficulties getting appointments and as a result, the primary care access target was set in the NHS Plan (Department of Health, 1999; Department of Health, 2001; Department of Health, 2002). This target aimed for all patients to be able to see a GP within 48 hours and a primary care professional within 24 hours.

Skill mix has helped a number of practices to meet these targets, with initiatives including extended opening hours, and developing the roles of nurses and others to provide care at the first point of contact (Wilkin *et al*, 2001). A team approach can also improve access, involving pharmacists and nurse practitioners, who offer patients the chance to be seen quickly (Reveley, 1998; Forum on Teamworking in Primary Healthcare, 2000; Gravelle and Bojke, 2001; Hassell *et al*, 2000; RPSGB, 2003). However, the more complex the organisation and larger the practice, the harder it is to get an appointment (Arber and Sawyer, 1981; Campbell *et al*, 2001). This is a concern as through skill mix, practice teams do tend to get larger and organisation – who to see for what – can become more complex.

2.5.2 Specialist roles

Increasing diversification in primary care through skill mix has led to more specialist or expert roles being taken on by existing team members or through new professionals joining the team. A key part of the NHS Plan is to have up to 1000 specialist GPs to enable GPs to develop their skills and patients to be seen quicker (Department of Health, 2002). Theoretically hospital consultants can then offer faster access to patient with more complex problems, whilst GPs deal with more straightforward cases (Rosen *et al*, 2003).

Other specialist roles in primary care, which can allow a more diverse range of services to be offered at the practice through skill mix, include diabetes, ear care, respiratory health and heart disease (Cockcroft *et al*, 1987; Murphy *et al*,

1992; Fall *et al*, 1997; Wiles, 1997; Ward, 2003). Outreach clinics may also be run in primary care, where hospital-based specialties hold outpatient clinics in GP surgeries, an option that was particularly attractive to those who were GP fund-holders (Black *et al*, 1997).

2.5.3 Workload

GP workload emerged as a key issue in the literature, and how it could be reduced through skill mix. Relatively little consideration was given to nurse workload. It has been noted that GPs do have an increasing workload and a team approach to care, where they delegate to others through skill mix, has been advocated (Burns, 1969; RCGP, 1998; Audit Commission, 2002; Forum for Teamworking in Primary Health Care, 2000). However, it has also been noted that there is little evidence for GPs' claims of increased workload because of a shift of services from secondary to primary care. Although there is anecdotal evidence of increases in workload, this may be caused by increased patient expectations and administrative burdens (Pederson and Leese, 1997).

Whatever the cause, it has been noted that although GPs would like to ease their workload they can feel insecure when other professionals try to take on some of this work (Wilson *et al*, 2002). A further difficulty is that GP workload might not reduce as a result (RCGP, 1998; Wilson *et al*, 2002). For example, GPs' are unconvinced that the involvement of pharmacists in practice skill mix would reduce their workload although non-medical prescribing, where

pharmacists and nurses may take on prescribing, may alter this (Barber, 1998; Department of Health, 2003). It has been noted that if prescribing did shift in this way, it could save GPs up to half an hour a day (Zermansky *et al*, 2002).

Another significant part of GP workload is seeing patients with minor ailments, which can account for between 30% and 70% of all consultations (Morris *et al*, 2001; RPSGB, 2003). GPs can find this frustrating and some have introduced nurse triage through skill mix (Charles-Jones *et al*, 2003). Greater involvement of pharmacists in skill mix may also allow them to see patients with minor ailments and GPs' think that more patients with minor ailments should see the pharmacist first, or try self-management (Barber, 1998; Morris *et al*, 2001; Audit Commission, 2002; RPSGB, 2003). However, some GPs' think that minor illness consultations help balance the working day, diluting the more demanding consultations. They are also concerned about the possibility of something important being missed if others see patients (Morris *et al*, 2001).

Primary care nurses' workloads are also increasing and some working in an expanded role in skill mix are worried about workload and the increasing pressure on them (Robertson *et al*, 1997; Leonard, 1999). GPs are also noticing that nurses are working very hard and that further potential for delegation may be limited (Zermansky *et al*, 2002). District nurses in particular have been found to be concerned about their demanding workload (Rapport and Maggs, 1997).

2.5.4 Resource limitations

The professional literature included concerns about scarce resources which could limit skill mix developments, rules on the use of investment and concerns about skill-mixing to cut costs. Shortage of resources has been identified as a barrier to skill mix, with GPs noting that staff budgets need to be sufficient for doctors to employ nurses to delegate to (Georgian Research Society, 1991; Robinson *et al*, 1993; English, 1997; Wilson *et al*, 2002). Nurse practitioners and GPs' think that that sufficient resources need to be made available to develop the NP role which should be separate from the 'normal' staff budget because of concerns about the cost of training and employment (Fox *et al*, 1994, Walsh, 1999) Wilson *et al*, 2002).

The rules around the use of resources can also influence skill mix. Pringle (1992) notes that if staff budgets had included the employment of professionals such as physiotherapists and social workers, the nature of primary care would be very different. These professionals are funded through different budgets which can be a barrier to inter-professional collaboration, which is important for skill mix (Reedy, 1981; Biggs, 1997). The financial barriers to joint working in primary care are also noted by Leese and Gillam (2000) in the primary care 'tracker' survey, although unified budgets in primary care groups and trusts were intended to go some way to overcoming this.

Skill mix has also been linked to the need to reduce expenditure on staff costs. Some nurses' think that extended role, skill mix and the use of HCAs, may be used solely to save money (Magennis *et al*, 1999). GPs have expressed similar concerns about district nurses being replaced by cheaper, less skilled staff in skill mix (Rapport and Maggs, 1997). A literature review by McKenna (1995) discovered that the use of unqualified staff can lead to increases in costs though – because absenteeism and sickness increases.

Not only do sufficient resources need to be available to employ staff, there needs to be adequate numbers of staff available to delegate to and this influences attitudes to delegation (Bowling, 1981; Forum for Teamworking in Primary Health Care, 2000). Lack of space at the practice is also a commonly identified barrier to delegation and diversification (Georgian Research Society, 1991; Robinson *et al*, 1993; Gillam *et al*, 1995; Audit Commission, 2002).

The effective use of limited resources is one of the main purposes of management. Skill mix may be seen as one of the key 'tools' to enable management to make effective and efficient use of resources, impacting on human resource management and the delivery and costs of patient care (Gibbs *et al*, 1991; Roberts, 1994; Anglia and Oxford NHSE, 1996; Friesen, 1996). The purpose of management, to control and make the best use of resources, can however bring them into conflict with professionals. Traynor (1994) found that nurses' felt that they were interested in patient care whereas they thought managers were only interested in money. Elsewhere, attempts by management to implement the recommendations of the controversial NHS

Management Executive Value for Money Unit Study on district nursing skill mix ran into problems, with many reports in professional journals of conflict between managers and nurses (Jones, 1993; Potrykus, 1994). Managers for their part felt subject to the ebb and flow of implementing various policy changes, trying to do the best they could (Laurent, 1992; Rapport and Maggs, 1997).

Resource 'efficiency' in skill mix has been found to be important. Charles-Jones *et al* (2003) studied the views of practice managers, GPs and nurses, on the distribution of medical work in primary care. Their interviews revealed that complex medical problems were defined by practice managers as requiring doctor input whereas conditions without a biomedical label, such as a cold, were felt to be more appropriately dealt with by a nurse. Professional roles were also framed by cost effectiveness considerations. For example, an 'expensive' G grade nurse doing 'basic' tasks, such as dressings or vaccinations. It is noted that this perception is task-focused and that the object is for the task to be completed by the cheapest possible employee.

2.6 Professionals involved in skill mix

There are some aspects of the literature which relate to specific professionals involved in skill mix in primary care. This includes patient views on particular professionals and perspectives from the different professional groups on each other. The literature has largely focused on the development of existing professionals in primary care, particularly nurses, but it has been argued that

patients' want a wide range of services and professionals to be available in primary care (Neuberger, 1998). Views on other services are less frequently reported.

2.6.1 General practitioners

The literature on the role of GPs in skill mix is linked to their management and leadership roles in the primary care team. GPs' feel that it is important for them to remain the clinical leader of the team, and this may be the only pragmatic option (Clayson, 1993; Cook, 1995; Long, 1996; RCGP, 1998). However, the multi-disciplinary Forum for Teamworking in Primary Health Care (2000) note that it may be preferable for the team leader to be selected on the basis of their skills, rather than traditional hierarchies. Alternatively, leadership could be shared (Pringle, 1992). To this end, GPs and nurses asked for a change in the law to allow nurses to become partners alongside GPs (Salisbury, 1991; Pringle, 1992; Giles, 1993; Long, 1996). This is now an option available to nurses and other primary care professionals, who may also hold primary medical services contracts (BMA, 2003). However, it seems to occur relatively infrequently, with few instances in the south west.

The GP's influence and power in the primary care team comes from reward, coercive and referent power (Huczynski and Buchanan, 2001). Reward power is the ability of the leader to access rewards which will be dispensed for compliance. Coercive power is dispensed as penalties or sanctions. Referent power means the leader possess abilities and personality traits

which should be copied. GPs, as owners of the 'business' and employers, coupled with the continued dominance of the medical model, can draw on all three in their continued leadership role. There is a blurring of the definitions between 'leadership' and 'management', but GPs also have a wide range of managerial roles. These include employment, direction and supervision of staff, commissioning health care, and committal of expenditure (through prescribing and treatment).

To help them with their management roles, many GPs have employed practice managers and this is in itself a form of skill mix (Macmillan and Pringle, 1993). Doctors adapt differently however, following the appointment of a practice manager. Some relinquish what they see as the burden of administration, whereas others are reluctant to let go and may retain some areas of work, such as practice income. This means that the term 'practice manager' is quite a broad definition of the role. Some take on a true managerial role, with others being more like practice administrators. Administrators have often worked their way up through the ranks, being given added responsibilities such as claiming fees and allowances, ordering stationery and organising the staff rota. Practice managers oversee all these but their remit is wider and may include some elements of team management, which can impact on skill mix. Another important role for the manager is liaison between the practice and primary care trust, but relations are not always easy as the remit for both parties is to 'manage' primary care and this can lead to conflict (Peckham and Exworthy, 2003).

2.6.2 Nurses

In terms of professionals as providers of services through skill mix, the main focus in the literature has been on nurses. There is particular emphasis on the relatively new nurse practitioner role and the changing roles of practice nurses. Less has been written on the roles of other types of primary care nurses, such as health visitors, district nurses and mental health nurses.

The nurse practitioner role is not easy to define and can lead to different applications of the job title (Chapple *et al*, 2000). A somewhat limited definition of their role is that they have received specialist education to enable them to offer direct access to clients, undertake initial assessments and initiate treatments, including prescribing (Poulton, 1995). This differentiates them from practice nurses, who do not take sole responsibility for patients. In the UK, it is generally accepted that nurse practitioners provide an extra service through skill mix rather than acting as a substitute for the general practitioner (Scott, 1995; Salisbury and Tettershall, 1988; Venning *et al*, 2000). However, there is also potential for them to work with people not presently registered with a doctor, such as the homeless and some are setting up and running their own practices (Scott, 1995; Chapple, 2001). Other nurse practitioner-led schemes include open access and early/late appointments, which are popular with patients (Dobson, 1999). Nurse practitioners and practice nurses have been found to be popular with patients (Marsh and Dawes, 1995; Poulton, 1995; Dolan *et al*, 1997; Jenkins Clarke *et al*, 1997;

Salisbury and Tettershall, 1998; Kinnersley *et al*, 2000; Shum *et al*, 2000; Pritchard and Kendrick, 2001; Department of Health, 2002).

As the nurse practitioner is a relatively new role, with different definitions applied to it, research has investigated how patients learn about the role. The findings from these studies can be used to consider how skill mix changes are communicated to patients. Patients learned about the role from the doctor, comments from receptionists, newspaper articles, information leaflets, their own and other patients' experiences, and previous contact with a nurse practitioner (Salisbury and Tettershall, 1998; Chapple *et al*, 2000).

Little has been written on the involvement of health visitors and district nurses in skill mix. This may be because they are not employed by GPs and therefore in terms of skill mix in GP practices, their roles may be less subject to change. Patients seem to like seeing health visitors for children with acute minor illnesses, in preference to GPs or practice nurses (Pritchard and Kendrick, 2001). Patients also like district nurses in terms of the professional care they give and perceived time for consultations (Poulton, 1996). Difficulties with role overlap between district nurses and health visitors and practice nurses have been noted, this can cause difficulties in skill mix (Bowling, 1981; Mackereth, 1995). When practice nurses were introduced, GPs tended to prefer 'their' nurse as they did more practical tasks than district nurses, and the role could be negotiated directly between the nurse and GP as the employer (McKinstry and Gillies, 1988; Georgian Research Society, 1991; Robinson *et al*, 1993). When the 1990 GP contract was introduced,

many GPs substituted practice nurses for other nurses who then became increasingly frustrated (Halser, 1992; Mackereth, 1995). For example, Salisbury (1991) found that health visitors felt undermined by practice nurses taking on health promotion, which they felt was their role (Mackereth, 1995).

Skill mix can improve access to primary care based mental health services, which are popular with patients. Primary care based services, predominantly provided by CPNs, are popular with many patients who preferring talking therapy to medication (Spiers and Jewell, 1995; Goldberg *et al*, 1996; Priest *et al*, 1996; Katon *et al*, 1997; Greener, 2000; Simpson *et al*, 2000). However, although patients valued nurses interpersonal skills, they also needed to know that the technical aspects of medicine were covered (Mangen and Griffith, 1982).

There are limits to the nurse role, from the patient perspective, which will influence the extent to which skill mix can develop. In a nurse-led minor illness service, 31% of those who had seen the nurse still wanted to see the doctor next time and 60% expressed no preference (Shum *et al*, 2000). In a study on walk-in centres, Chapple *et al* (2001) found that people wanted access to both doctors and nurses as there was a view that nurses cannot replace doctors. For other areas of care, such as women's health, surprisingly few women wanted to see the practice nurse, preferring to see a GP (Brooks and Phillips, 1998). These concerns may relate to the issue that patients' value access to nurses but they are seen as assistants to GPs, and there may be a lack of understanding of the potential of nursing skills

(Williamson, 1995; Wiles, 1997; Brooks and Phillips, 1998). This could be a barrier to skill mix but it may be overcome by recognising the important role of GPs in building awareness and confidence in patients to see other members of the team (Williamson, 1995; Jenkins-Clarke *et al*, 1996; Wiles, 1997).

2.6.3 Other professionals

There are relatively few examples in the literature of other staff working with primary care teams through diversification in skill mix. An NHS Beacon site, Hoveton Surgery, have a nurse and occupational therapist-led clinic providing a 'one-stop shop' for rheumatoid arthritis care, which is popular with patients (NHS Executive, 2000). There is also an increasing move for patients with self-limiting illnesses to visit the pharmacist for advice rather than see a GP. Patients' view this favourably in terms of ease of access but express concerns about the competencies of pharmacists, the efficacy of over the counter medicines, and the lack of access to medical records (Hassell *et al*, 2000).

Gillam and Levenson (1999) reported on link workers in primary care who provide a cultural bridge between doctors and patients in areas with ethnic minority populations. The role includes interpreting, advocacy, health education and it can help interactions with the primary care team, local authority and benefits agency. Galvin *et al* (2000) reported on CAB advisers based in GP surgeries, who were well received by patients to help them with financial problems, benefits and legal advice, advocacy, form filling, and employment problems.

2.6.4 Professional competence

The competence of health professionals is important to patients and care should be taken when skill mix develops that patients feel comfortable about the competencies of staff to take on new roles. Some studies have suggested that patients cannot assess personal and technical competence although others note they can, although they may judge technical ability using different criteria from professionals (Mangen and Griffith, 1982; Brearley, 1990; Bond and Thomas, 1992). Patients' views on competence are complicated as some aspects of care, such as teaching self-care, may induce dissatisfaction because of changes in lifestyle (Fitzpatrick, 1991). It has also been identified that patients' attitudes to competence are largely determined by other qualities, such as a friendly and reassuring manner. This may be because patients' assume competence in health care professionals so instead they focus on human factors (Bowling, 1997).

Despite difficulties in assessing competence, patients have judged the competence of GPs and nurses as favourable in terms of knowledge, skills and attitudes (Paykel *et al*, 1982; Department of Health, 1999; Department of Health, 2002). Nurse practitioners in particular have been judged highly for professional care (Poulton, 1995; Poulton, 1996; Reveley, 1998; Shum *et al*, 2000; Chapple, 2001). Patients do have some concerns about nurses' competence when taking on new roles through skill mix. For example, patients with heart disease receiving follow-up care from practice nurses did

not question the technical abilities of the nurses in terms of blood pressure measurement, taking blood or pulse readings but they were viewed by patients as half way between no care at all and care from 'experts' - GPs, cardiac nurses and hospital doctors (Wiles, 1997). A study on patient views on nurse prescribing showed that patients' felt that it was a good idea, but raised issues around the need to limit nurses to 'minor' items (Brooks *et al*, 2001). Regarding GPs, most patients, particularly those from manual classes, feel GPs know which treatment is best, and they make the right decisions and diagnosis. However, those in poor health are more likely to want a second opinion (Department of Health, 1999).

Some professionals' have expressed concerns about the competencies of those taking on new roles through skill mix. Nurses in a medical unit were concerned about competencies when working in an expanded role (Leonard, 1999). Primary care nurses have expressed concerns when taking on triage (Richards and Tawfik, 2000). Nurses are also concerned about the competencies of HCAs to take on nursing tasks, although this may be because they are largely ignorant of their training (Reeve, 1994).

A key part of developing and assuring competency in technical and interpersonal aspects of care is education and training. Nurses' think that if they take on tasks delegated from GPs, they want to be adequately trained (Bowling, 1981; Luker *et al*, 1997; Robertson *et al*, 1997; Magennis *et al*, 1999). However, they are concerned that in some cases no suitable programmes exist, or pressure of work limits attendance (Rapport and Maggs,

1997; Walsh, 1999). GPs do accept that it is their responsibility to agree and fund basic training, as it is their responsibility to ensure the nurse is competent. However, they are concerned about the lack of suitable training and how this may inhibit the practice nurse role (Georgian Research Society, 1991; Robinson *et al*, 1993).

2.7 Synopsis of the literature review

The main findings from the literature review are summarised here, with the aid of figures. The key issues which emerge from the consideration of how the term skill mix is interpreted can be considered as factors which influence group effectiveness. The dynamics which influence perspectives are predominantly focused on patients' perspectives on services. A number of drivers for change and service issues emerge from the literature including political, environmental, social and technological factors which influence skill mix.

2.7.1 Interpretation of the term 'skill mix in primary care'

When considering how the term skill mix was interpreted across the literature, delegation was frequently cited. GP to nurse delegation was most common, with only a few studies on delegation to health care or nursing assistants. When considering how the term was interpreted, most of the findings emerged from the professional evidence base. A number of the key issues

can be located within the overall concept of 'teamwork', or more accurately, factors which influence group effectiveness. The key issues which emerge from a consideration of how the term is interpreted, within the context of group effectiveness, are shown in figure 2.1. The figure will be revisited at the end of the study in the conclusions chapter to assess to what extent it remains valid. Factors influencing group effectiveness and skill mix included the size of the team, professionals' competencies, and the range of professionals involved. Availability of resources and education and training were also important. Group processes influencing effectiveness included leadership of the team and the inclusion of attached staff. Evidence of effectiveness – outputs – were scarcely mentioned and restricted to innovation, with the development of new roles, and job satisfaction.

Figure 2-1: Factors affecting group effectiveness and interpretation of the term 'skill mix' (derived from the literature)

GROUP EFFECTIVENESS PRIMARY CARE CONTEXT POSSIBLE SKILL MIX IMPLICATIONS

INPUT

Composition of group

Size	Primary care teams getting larger	More services available, greater specialisation, increasing complexity
Homogeneity/heterogeneity	Primary care teams composed of people from diverse professional backgrounds (heterogeneous); demographic homogeneity, similarity of age, sex and educational levels will differ	Creative decisions for skill mix from heterogenous groups; demographic homogeneity predicts cohesiveness and group stability but not effectiveness
Knowledge/skills	High levels of knowledge and skills in primary care teams which include doctors and nurses, qualified professionals and semi-professionals	For some further desire to acquire knowledge/skills - GPs with special interests, nurse practitioners
Competencies	Some concerns expressed about nurses and assistants competencies to take on new roles	Limits to delegation if concerned about own or others competencies

Organisational context

Availability of resources - human, financial and physical	Concerns about recruitment of GPs, money to train and employ nurse practitioners	Recruitment difficulties of GPs will drive some skill mixes, perceived shortage of money inhibit development of NPs
Task	First contact, continuous, comprehensive, and co-ordinated care provided to populations undifferentiated by gender, disease or organ system	Complexity of task outside the gift of one type of professional
Education and training	Joint approach advocated, general lack of clarity over others training	Greater understanding of training of others needed to appreciate contribution and willingness to delegate
Policies	Contrary policies/procedures between GP employed and other team members	Barrier to some developments

GROUP PROCESSES

<i>Leadership</i>	GP as leader, employer, owner of building	Powerful position to implement skill mix as GP led
<i>Information exchange</i>	Meetings	Can be time consuming, poor communication between professionals in skill mix bad for services
<i>Participation</i>	Attached staff not as involved in primary care team	Role and contribution of attached staff not maximised through skill mix
<i>Norms/rules</i>	Different employers of team members	Barrier to some developments

OUTPUTS

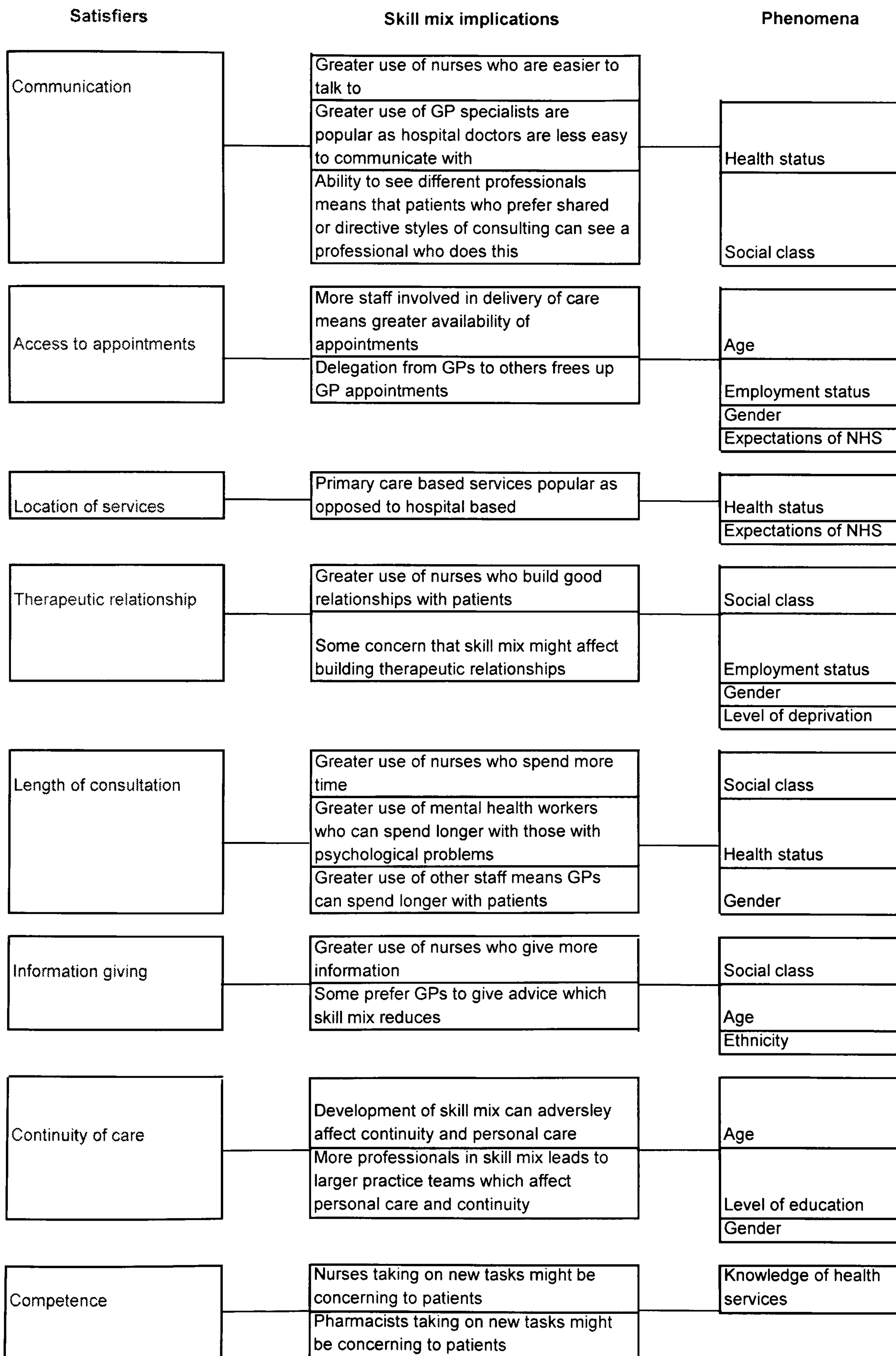
<i>Goals</i>	Lack of clear shared goals	Lack of buy in to skill mix changes
<i>Productivity</i>	Workload concerns	GPs or nurses unable to take on more work through skill mix
<i>Innovation</i>	New roles	GPSIs, new nursing roles
<i>Job satisfaction</i>	Low morale, some get more satisfaction from delegated tasks though	Nursing more interesting as tasks delegated to them, GP take on more interesting special areas

2.7.2 Influences on perspectives

The literature review discovered a number of variables which seem to influence perspectives on services. The main influences identified related to patients and included health and socio-economic status, age and gender. Depending on the characteristics identified, service preferences emerged and the implications for skill mix are shown in figure 2.2. This figure will be revisited at the end of the study in the conclusions chapter to consider to what extent it will change as a result of the research.

Considering what influences professionals' views, GP views were influenced by their beliefs on the presentation of trivia. Age, years since qualification, and whether they were members of the RCGP also had an effect. Management were found to be predominantly influenced by their background, that is whether they were from the private sector or from health service administration.

Figure 2-2: Influences on patient perspectives: links between patient phenomena, satisfiers and service implications for skill mix (derived from the literature)



2.7.3 Drivers for change/service issues

Drivers for change, which includes some services issues, were identified from the review. They are brought together in figure 2.3, a PEST (Political, Economic, Socio-Cultural and Technological) analysis of skill mix in primary care.

Figure 2-3: PEST analysis: Environmental factors influencing skill mix developments (derived from the literature)

Environmental factors		Skill mix implications
<i>P</i>	<i>Political/legal</i>	
	Government policies on secondary services into primary care	Diversification, GPs with special interests (GPSIs), enhanced services
	Government target for access to GPs and primary care professionals	Greater use of nurses and assistants to increase access to primary care
	Primary care led NHS	Increasing workload in primary care, skill mix may help to manage
	Rules on use of staff budgets	Limits involvement of a range of staff in primary care
	Independent contractor status	GPs employ their own staff other primary care staff employed by NHS
<i>E</i>	<i>Economic</i>	
	Availability of skills and staff	Staffing shortages and difficulties both driver and barrier for skill mix
	Finite resources	Skill mix helps make best use of finite resources
	Cost of skilled labour	Nurse practitioners and higher graded practice nurses more expensive
	Spend on premises	Not enough space in practice premises
	Size of practice	Larger teams, harder to communicate around team
<i>S</i>	<i>Socio-cultural</i>	
	Patient expectations	Communications with professionals, continuity, length of consultation, access, local services
	Specialisation	GPSIs, more disciplines involved in primary care
	Skill developments in GPs and nurses	GPSIs, nurse practitioners, enhanced practice nurses
	Changing roles	Diversification and delegation
<i>T</i>	<i>Technological</i>	
	Diagnostic/investigative work able to be done in practices	More services from secondary to primary care

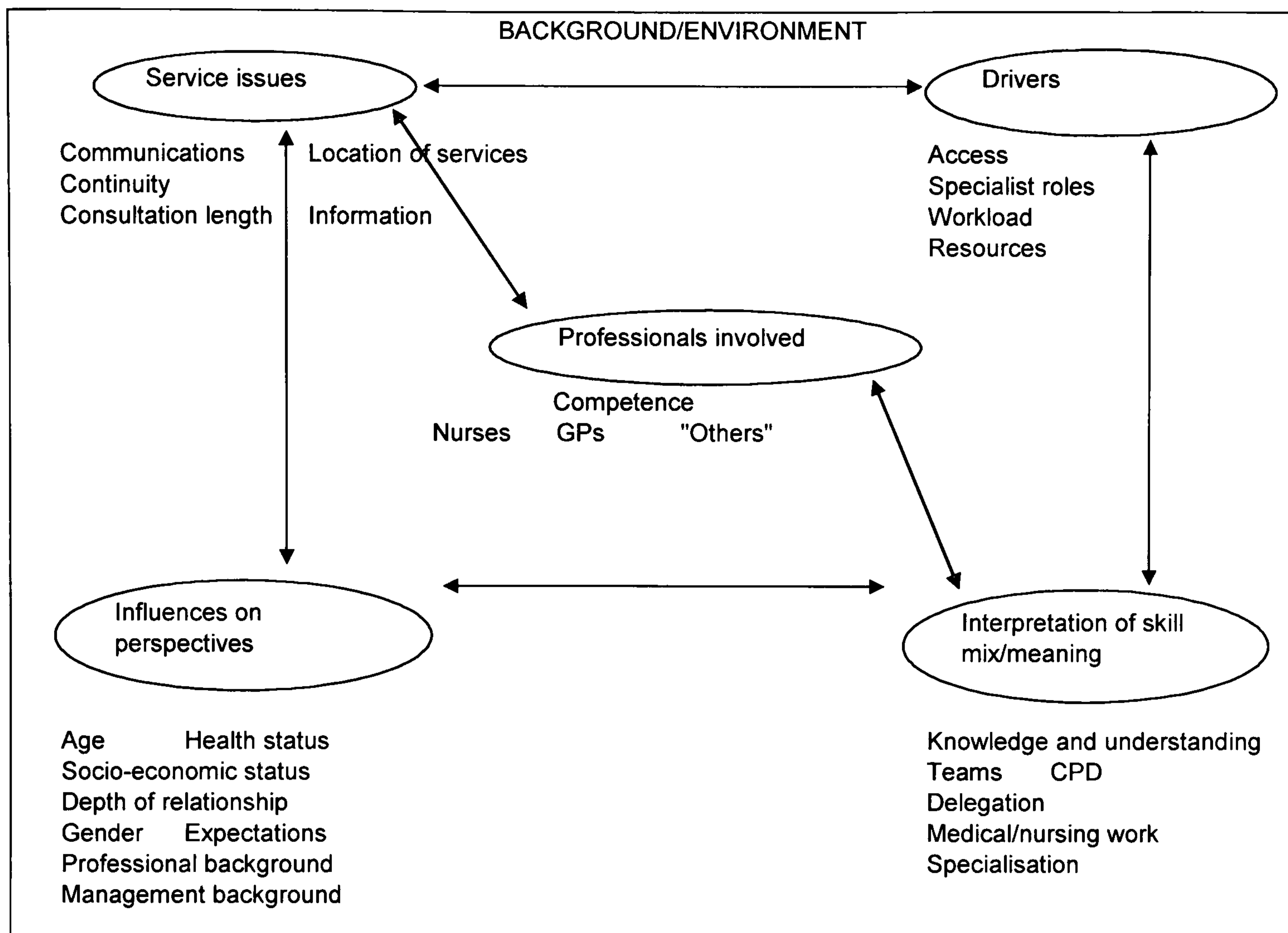
Source: Adapted from Johnson and Scholes (1993)

Following the study, the figure will be revisited in the conclusions chapter to check validity. There are political/legal drivers mentioned in the literature, including the move of secondary care services into primary care and a target for improved access to primary care services. Economic factors include the availability of skills and staff for skill mix, and resource limitations. Socio-cultural factors include role changes and developments, and changing patient expectations. An objective of the research will be to discover what factors have influenced the development of skill mix in primary care.

2.8 Summary/conclusions

This chapter has provided a review of the relevant literature to establish what is already known about the topic. It has considered the literature relating to patient, professional and managerial perspectives on services which may be influenced through skill mix. It has also considered how skill mix may be interpreted, what influences views, service issues, drivers for change, and issues relating to specific professionals involved in skill mix. However, it is important to note that these themes do not stand in isolation, they interact with each other. Therefore, in attempting to take this review further, an emerging model of the body of knowledge has been developed, which may be seen as a model for the research framework. The emerging research framework model shows in more detail how the concepts from the body of knowledge can be clustered together according to themes – shown in figure 2.4.

Figure 2-4: Emerging model of the body of knowledge relating to skill mix in primary care: patient, professional and management perspectives



The key headings from the chapter are shown in each ellipse: service issues, drivers for change, professionals involved, influences on perspectives, and interpretation of skill mix. The key issues emerging from each theme are then shown underneath. The arrows indicate the links between each theme as they do not stand in isolation. When considering how the term skill mix is interpreted, personal characteristics and professional background influences perspectives. These can in turn be influenced by how an individual understands skill mix and the impact it has on services which are important to them. Service issues are influenced by the professionals involved in skill mix, for example, the extent to which nurses are used and what has driven the particular skill mix development. Drivers for skill mix development, as noted

previously, are closely linked to service issues and in many cases the driver and the outcome may be similar, for example, the desire to improve access. Added to this is the importance of the background or the environment in which the developments take place; that is, the nature of area and the GP practices within it. This model will be revisited in the conclusions chapter following the research to assess validity.

Having detailed the existing research in this chapter the next chapter considers the methodology for collecting the original primary data for the study.

3 Methodology

3.1 Introduction

This chapter describes how the research was undertaken and the key decisions taken on the approach. The chapter details the chosen methodological approaches, and the approach and principles of the research. The samples for the qualitative and quantitative stages of the research are described. The instruments and measures to be used are presented. The data collection and analysis processes are described in some detail. Ethical issues, reliability and validity, and research boundaries are also considered.

3.2 Design

This section presents the overall plan for the research and details the chosen methodologies, the approach and principles behind the research. The aim and objectives of the research are restated as it is important that the chosen methodologies are determined by the research questions.

3.2.1 Details of the chosen methodologies

Methodological approaches should link to the purpose of a study. For studies such as this, designed to understand and analyse the nature and meaning of

human experience in a particular context, a number of methodological approaches may be used, as identified by Holloway and Walker (2000). These include qualitative interviewing, observation and interviewing using ethnography, and case study design. Studies which also aim to examine an issue from different perspectives and describe/compare attitudes can also use the approaches of questionnaire surveys and methodological or sampling triangulation. As stated in the introductory chapter 1, the aim of the study is to contribute to the understanding of skill mix in primary care by studying the perspectives of patients, professionals and management. When considering which methodological approaches may therefore be appropriate to achieve the aim and purpose of the study, qualitative interviewing, ethnography, case study design, questionnaire surveys and triangulation emerge.

The approach to this research is therefore focused on case studies, triangulated with survey research and ethnography. Triangulation of the case study approach with other methods, to form a multi-method approach, is recommended to help increase the validity of findings (Jensen *et al*, 2001). Case studies are not representative of entire populations and do not claim to be, so care must be taken not to generalise beyond cases similar to the one studied. It is therefore important to define in some detail the area in which cases studies take place (Yin, 1994). The study takes place in Torbay, so a thorough consideration of the population of Torbay in demographic and socio-economic terms has been provided at the end of introductory chapter 1. The profile of the participants involved in the study is covered later in this chapter and also at the start of the results in chapter 4. The comparative element of case studies for this study

focuses on comparing views on skill mix from the perspective of patients, professionals and management. It also includes comparisons of views of patients from 'skill mix' and 'traditional' practices in Torbay. In terms of data collection in case studies, qualitative and quantitative instruments and measures can be used.

Ethnography is a form of research focusing on the sociology of meaning through close field observation, typically focused on a community. Participants are selected on the basis of having an overview of the community's activities. In ethnography, the researcher is immersed in the culture, for months or years (Denzin and Lincoln, 1994). This research focuses on skill mix in primary care in Torbay PCT, over a period of five years, from the perspective of the researcher who has lived and worked in the area for the duration and prior to the study. Qualitative approaches to data collection are usually associated with ethnography, such as observation and interviewing.

Survey research is a method of gathering data from respondents thought to be representative of a population; it is the predominant form of data collection in social sciences, being most efficient for data collection (Fink, 2002). Surveys are characterised by wide and inclusive coverage, taking a relatively large sample of subjects drawn from the population to actively seek necessary information to be measured and recorded (Denscombe, 1998). They usually involve a series of questions to obtain information about practices, opinions, attitudes and other characteristics and a broad range of demographic data are usually collected to link to patterns (Powers and Knapp, 1995). Surveys can be descriptive – in

terms of identifying and counting the frequencies of a specific population - or analytical in terms of trying to determine relationships between different variables (Hussey and Hussey, 1997). In this study, the surveys will be a mixture of descriptive, in terms of determining attitudes, and analytical in terms of trying to identify why certain views are held. Gathering data using surveys requires a predominantly quantitative approach, most often through the use of questionnaires.

The combined methodological approaches used in this study are increasingly used in studies of health service organisation and policy to explore changes from the perspectives of those affected (Pope and Mays, 1995). The use of a combined approach for researching primary care has also been advocated through work linking general practice to complexity theory. It is noted that change and development in general practice is complex and the use of combined research can help to understand this (Griffiths, 2000).

In terms of considering the instruments/measures used, the literature review also helps to guide the methods used and in what order. Much of the literature on patient views was quantitative and not specifically related to skill mix. Therefore, to discover more about patient views on skill mix a predominantly qualitative approach is taken. This will allow discovery of views on a complex topic, such as skill mix, with lay participants; the chosen methods are focus groups and interviews. Qualitative approaches for studying patient views have been advocated to allow for a full understanding of views in contrast to the reductionism of quantitative approaches (Crow *et al*, 2002). The qualitative

approaches in the study are supplemented with a quantitative approach, to confirm findings through the use of a postal questionnaire. The literature review found that there is already a considerable evidence base of professional views on skill mix. Therefore, the study will test this evidence through a quantitative approach, using a postal questionnaire. Qualitative research with professionals is a secondary process to discover more about areas of difference, and interviews are the chosen method. The literature on management views is sparse so the approach is purely qualitative, using in-depth interviews. As a guide to the overall research plan, table 3.1 provides an overview of the methods and instruments used in the study. Justification for the use of the specific instruments/measures is given later in the chapter.

Table 3-1: Chronological overview of the case study, ethnography and survey research conducted

<i>Participants</i>	<i>Method/instrument</i>	<i>No. respondents</i>	<i>When</i>
Patients	Focus groups	12	July-September 2001
	Interviews	10	November-December 2001
	Questionnaire	241	March-May 2002
Professionals	Questionnaire	128	December 2002-February 2003
	Interviews	8	April-June 2003
Management	Interviews	8	December 2003-July 2004

3.2.2 Approach and principles behind the research

This section considers the nature of the research paradigm, assumptions and

classifications. This research is part exploratory to look for new patterns, ideas and theories, and part analytical, to discover and measure relationships between phenomena. A combined qualitative and quantitative approach is taken. Qualitative research is often associated with exploratory research as it examines and reflects on perceptions to understand human activities. Quantitative research supports the analytical purpose of the research by analysing data and phenomena to establish links (Hussey and Hussey, 1997). The research moves between inductive and deductive logic, from the specific to the general, allowing a theory to be developed from the observation of particular instances and tested with a larger sample than would be used in purely inductive research (Powers and Knapp, 1995).

A paradigm is a way of viewing phenomena in the world and may be seen as a framework that contains concepts, assumptions, beliefs, values, and principles. It provides a way to interpret a subject and certain research methods are considered to be best suited to generating knowledge within a particular framework (Powers and Knapp, 1995). The phenomenological paradigm has been argued by some social scientists as most appropriate for social sciences that deal with behaviour and action (Van Maanen, 1983). It is concerned with understanding human behaviour from the researcher's own frame of reference and understanding the *meaning* not frequency of phenomena. This enables the researcher to explore new phenomena about which there is little current understanding (Hussey and Hussey, 1997). Another characteristic of phenomenological research is that events or phenomena are identified and interpreted as they occur through the research process. This differs from

positivist approaches where the research starts from a fixed belief or hypothesis to be confirmed or disproved (Gardiner, 2004).

However, phenomenological studies which do not produce statistics are sometimes viewed as not being as valid as quantitative research, historically used in social sciences and based upon the approach taken in natural sciences (Bowling, 1997). In health research, there is a strong tradition of bio-medical research using conventional, quantitative methods. Qualitative approaches are sometimes criticised for lacking scientific rigour (Mays and Pope, 1995). In positivistic studies, the facts or causes of social phenomena are gathered with little regard for the subjective state of the individual. Data collection methods can be inflexible and cannot easily accommodate data presented as expressions of beliefs or values. The means of data collection involved in positivistic studies, such as surveys or structured interviews, also limits the range of responses which imposes constraints on results, which can ignore interesting findings (Fulop *et al*, 2001).

However, phenomenological and positivistic approaches can be seen as extremes at either end of a continuum. There are approaches which use a combination, where the two are brought together in a single study, whilst still respecting the branches of philosophical thought they are derived from (Bowling, 1997). In this research, methods are used to complement each other, although the overriding philosophy of the research may be taken to be phenomenological in that events and phenomena are identified and interpreted as they occur through the process (Gardiner, 2004).

Assumptions are notions taken to be real and there are a number of assumptions associated with each paradigm – ontological, epistemological and axiological (Creswell, 1994; Powers and Knapp, 1995). The ontological assumption relates to the nature of reality. In this research, the nature of reality is likely to be subjective and problematic, because attitudes are unlikely to be objective and simple. The epistemological assumption refers to the relationship between the researcher and that being researched. In this research, the relationship between the researcher and the participants will be mixed. It will be interactive during the qualitative phases, although less so during the quantitative stages. The axiological assumption refers to the values the researcher brings to the research, which will influence what is determined as fact from the attitudes expressed. My assumptions are a combination of personal beliefs and values and accepted knowledge about the research and topic. Assumptions are that skill mix is a 'good thing' and that patients' views are important and are as valid as those of management and professionals. Personal beliefs and values are also influenced by work experience and background; the researcher's background and experience are outlined in appendix 2.

Easterby-Smith *et al* (1991) also discuss assumptions and traditions in relation to policy research such as this, identifying two research models: the 'social engineering' model and 'enlightenment' model. The 'social engineering' model sees research as a linear, rational process where the results of studies are fed into specific decisions, to enable decision makers to take the right course of action. It is popular with governments and research sponsors as it may provide

answers to specific questions, but it can only describe the current situation and gives little guidance on the future. The social engineering model of policy research can be seen to be broadly positivistic. The 'enlightenment' model sees implementation as an incremental process, with different viewpoints held at different levels in the social system. It is more democratic than the social engineering model, providing a wider range of options and ideas, without necessarily suggesting the right approach to take or answering specific questions. The enlightenment model can be seen to be broadly phenomenological and thus this research may be mostly linked to the enlightenment model of research.

Easterby-Smith *et al* (1991) also identify three main management research outcomes: pure, applied and action, although the distinctions do not always clearly hold in practice. Pure research is intended to lead to theoretical developments and there may, or may not, be any practical implications. Applied research is intended to lead to the solution of specific problems or issues. Action research has developed where research does not 'neatly' fit into the pure or applied categories; the over-riding view is that research should lead to change. It has been noted that it is uncommon for research to be wholly pure, applied or action, and this is the case in this study. The research aims to lead to theoretical developments, from the discovery of new ideas of explanations emerging from empirical research. However, it is also hoped that there will be practical implications. Although the research does not provide a 'solution' to a specific problem or issue, it should be useful to the NHS. It is hoped that discovery of new issues may lead to service changes.

Having detailed the chosen methodological approaches, the design and the principles of the research, the next sections describe in some detail how the study was actually undertaken.

3.3 Samples

This section gives an overview of the sampling processes. The identification of Torbay practices as 'skill mix' and 'traditional' to inform the patient research is presented first. The sampling processes for the questionnaire surveys with patients and professionals are then described. The processes for sampling those involved with the qualitative research are then considered, for the patient focus groups and interviews, and the professional and management interviews. The two figures below, 3.1 and 3.2, give an overview of the processes involved.

Figure 3-1: Overview of survey sampling processes

Patient survey - multi-stage sampling ('samples from samples')

- Natural sample of GP practices – those willing to be involved (4 skill mix and 4 traditional practices)
- Random sample of 129 patients from each practice's registered list
- 206 responses needed - 103 from skill mix and 103 from traditional practices
- Response rate anticipated to be <20%
- Total sample size 1030

Professional survey – no sample necessary

- All Torbay GPs, nurse practitioners, practice nurses, health care assistants, district nurses and health visitors (n = 278).

Figure 3-2: Overview of qualitative sampling processes

Patient focus groups – multi-stage sampling ('samples from samples'):

- Natural sample of GP practices – those willing to be involved (1 skill mix and 1 traditional practice)
- Convenience/natural sampling – recruit patients in waiting room on a given day, to join later focus group
- Aim for six from each practice

Patient interviews - multi-stage sampling ('samples from samples'):

- Purposive sample of CHC health panel membership list – Torbay residents only (30 members)
- Natural sample of those then willing to be involved – aim for 8

Professional interviews – purposive sampling ('participants selected on the basis of knowledge/characteristics'):

- Purposive sample to include GPs, nurse practitioners, practice nurses, health visitors, district nurses and health care assistants – aim for 8

Management interviews – purposive sampling ('participants selected on the basis of knowledge/characteristics'):

- Purposive sample to include practice managers, and PCT, SHA and Department of Health management involved in primary care – aim for 8

As can be seen, targeting patients to be included in the study was complex and at all stages, multi-stage sampling was necessary to access patients either through GP practices or the CHC Health Panel. Access to health professionals and management was comparatively easy.

3.3.1 Skill mix and traditional practices

Throughout this research some attempt is made to explore patients' views from 'skill mix' and 'traditional' GP practices in Torbay, in accordance with the need for comparison in case studies (Jensen *et al*, 2001). Comparisons are aimed at identifying patients' perspectives from different types of practice, to allow for a consideration of whether experience of skill mix influences views. Having determined that it would be useful to try to distinguish between the different types of practices, a way of categorising practices was necessary. Following discussions with fellow professionals with an academic interest in skill mix, the phenomena in figure 3.3 were identified in 2001. Delegation and diversification, as the prime aspects of skill mix, were used as the key themes. It was thought that these questions would give a good indication as to the level of skill mix development in practices. Although more questions or more complex questions could have been posed, it was decided at the time that it would be more helpful to keep the questions relatively straightforward and capable of being answered 'yes or no', to encourage practices to respond.

Figure 3-3: Phenomena used to identify levels of skill mix development, focusing on delegation and diversification

Delegation:

- Health care assistant at the practice?
- Nurse practitioner at the practice?
- Direct access for consultation to a professional other than a GP?

Diversification:

- Counsellor at the practice?
- Physiotherapist at the practice?
- GP approved to provide secondary care services in primary care?

In October 2001, all 23 Torbay GP practices were contacted by an e-mail to the practice manager and asked to answer yes or no to the six questions. Seventeen practices responded (74%). Of those, 2 answered yes to one question (12%), 3 answered yes to two questions (18%), and 8 answered yes to three questions (35%). Three answered yes to four questions (18%), and 1 answered yes to five questions (6%); no practice answered yes to all six questions. Those practices answering yes to three or fewer questions were identified as more 'traditional' in nature (13 or 76%). Those answering yes to four or more were identified as having developed their skill mix (4 or 24%). The decision to make the distinction between three and four questions was essentially a pragmatic one, drawing the line at the half way point. There was some concern at this point that this may not provide enough distinction between the groups, and this did turn out to be the case. This is discussed in more detail in the analysis and discussion and conclusions chapters, 5 and 6.

3.3.2 Survey samples

The patient survey is considered first. Multi-stage sampling was used to generate patient survey samples. Multi-stage sampling involves selecting samples from samples (Denscombe, 1998). In this case, patients were sampled from GP practice lists which had been selected as a suitable cluster (i.e. skill mix or traditional practices). The sampling frame for practices was the list of the 23 practices in the Torbay PCT area. The aim was for eight Torbay practices to be

involved: four traditional and four skill-mix practices. A further aim was to get a good mix of practices, in terms of size and socio-economic characteristics. The sampling frame for the patients was the practices registered patient lists. Random sampling was decided to be an appropriate way to select patients from the lists, as it was thought that the number of examples selected was large enough, the selection was genuinely random and was likely to provide a representative cross section of the whole population (139,000 people registered with a Torbay GP in 2001).

Statistical advice was sought on the sample size necessary for the patient survey. It was calculated that 206 usable responses were required in total, with 103 from each practice type ('skill mix' and 'traditional'). This would allow the study to identify differences in patient views of 20% between the two practice types (e.g. 50% to 70%), 80% of the time ($p < 0.05$). Consideration was also given to the likely response rate, which influenced the sample size. It was predicted that the response rate might be no more than 20%. On this basis, the total sample size needed to be no less than 1030, to provide 206 responses. To try and ensure the minimum response rate was reached, questionnaires were as short as possible and included a reply paid envelope to make it easier for participants to respond. Random samples were generated from GP practice clinical systems to produce a list of names and addresses for 129 patients, aged 16 and over (patients aged under 16 years were excluded as a condition of ethical approval for the study). With eight practices involved, this would give the total sample size needed of 1030 ($129 \times 8 = 1032$).

It might have been possible to restrict the patient samples to frequent attendees of primary care, as they may have more knowledge on the topic and a change in organisation would affect them most. However, those who are dissatisfied with the way services are presently organised and do not attend often do not get a chance to comment. These people are typically excluded from surveys and this has been noted as a limitation in some studies (Lewis, 1994; NHS Executive, 1999). It was therefore decided to be important not to exclude them from contributing to research which may influence how services develop in the future. The literature review identified patient phenomena which seemed to influence patient perspectives on services, shown in figure 3.4. One of the objectives of the study was to test the extent to which these phenomena influenced views on skill mix. As the samples taken from the practice lists were random, purposive inclusion of these phenomena was not possible. However, it was anticipated that because of the truly random nature of the samples, the range of phenomena required to test views should be available.

Figure 3-4: Phenomena which influence patient perspectives on health services (derived from the literature)

- Age - older patients (65+ years), those of working age (25-64 years) and young people (16-24 years)
- Knowledge of skill mix and new roles - patients from skill mix and traditional practices
- Health status - patients who describe their health as good, moderate and poor
- Ethnicity - *white European patients and those from an ethnic minority*
- Social class - *patients from non-manual and manual social classes*
- Employment status — patients in paid work and those not working
- Socio-economic factors - patients from practices with a high deprivation scores and those from practices with lower scores
- Gender - males and females
- Length of registration with the practice – less than 5 years and 5 year or more

Note: Those phenomena shown in italics are difficult to gather information on as the topics may be sensitive. For the other phenomena, practice derived data are available at PCT level or the characteristics can be observed or derived from the participants themselves.

The phenomena shown in italics, social class and ethnicity, would be difficult to identify in participants at any stage of the research. Although it would have been possible in the survey to ask about these factors, this would have not been without difficulties. When asking for personal information, it is generally considered preferable to do so at the end of the questionnaire as it is hoped that the respondent's interest has been engaged (Crombie and Davis, 1996). If sensitive questions are not completed, this does not threaten completion of the questionnaire. However, with self-administered questionnaires, people often read through them and will not complete them if they object to any of the questions (Bowling, 1997). Therefore, inclusion of any sensitive questions must be justified. On balance, it was not considered to be appropriate to ask patients about their ethnicity or social class, as these were considered potentially sensitive issues. There were implications of this for the research. Opportunities to explore in more detail the links between social class and patient-professional relationships was not possible. Neither was it possible to study the relationship between continuity of care and ethnicity. Discovering different views of these groups on other aspects of skill mix in primary care was not possible either. However, the loss of information on these phenomena needs to be weighed up against the opportunity to get a more positive response rate to gather other information on views on skill mix. Although it may have been possible to observe these phenomena in the focus groups and interviews, social class cannot always be assumed and no individuals from an ethnic minority were involved in the qualitative stages.

Undertaking the professional survey was comparatively easy, as a sample was not necessary. This was because the population was relatively small (n = 278). It was assumed that health professionals would be easier to contact, and Crombie and Davies (1996) note that they are among the easiest groups to contact because they are listed in professional bodies' registers and by the organisations they work for. After taking statistical advice, it was agreed that all primary care professionals in the Torbay GP practices should be approached for the survey. That is, all GPs, nurse practitioners, practice nurses, HCAs, district nurses and health visitors (in 2002 there were 278 such professionals). The mix of the professionals within the population was four nurse practitioners, 13 health care assistants, 30 health visitors, 62 practice nurses, 81 district nurses, and 88 GPs. Although it was anticipated that the response rate from professionals would be higher than from patients, it was judged that it would be unlikely to have more than a third of the questionnaires returned. So, assuming no more than a third of the 278 professionals returned their questionnaires, the results would still give 95% confidence intervals of approximately $\pm 8\%$.

The literature review identified a range of phenomena which seemed to influence professional views on skill mix, outlined in figure 3.5. It was decided that there did not appear to be any phenomena which were particularly contentious or personally sensitive. On this basis, all the issues were followed up in the professional questionnaire, to allow an analysis of views against the phenomena. Gender was the only phenomena on which information was held about the sample prior to the distribution of the survey: 64 males and 214 females.

Figure 3-5: Phenomena which have been shown to influence professional views on skill mix in primary care (derived from the literature)

- Years since qualification
- Gender
- Age
- GP trainer status (GPs only)
- Membership of the Royal College of General Practitioners (GPs only)
- Continuing professional development (nurses only)
- Based at the GP surgery (community nurses only)

3.3.3 Qualitative samples

It is worth noting that as the data collected during the qualitative stages of the research would be rich and subjective, the sample sizes only needed to be relatively small (Hussey and Hussey, 1997). Further, as focus groups and interviews can be time-consuming to conduct and analyse, it was also appropriate to keep the sample sizes small (Denscombe, 1998). Non-probability sampling, for example natural or convenience sampling, is often used with qualitative research when it is not feasible to include large numbers in a study and there is not sufficient information about the population to undertake probability sampling.

The patient focus groups were undertaken first in the study, and as has already been stated, gaining access to patients was more difficult than for professionals and management. The sampling process for patients to be involved with the

focus groups began with multi-stage sampling. Two GP practices in Torbay – one traditional and one skill mix – were approached and agreed to be involved. They allowed the researcher to sit in the waiting room for half a day and approach patients to ascertain their interest in joining a focus group. The aim was for six participants in each group. Approaching patients in this way combines convenience and natural sampling, whereby the researcher samples those who are 'first to hand' in a given situation. Both sampling methods are not without difficulties. The samples will be biased as there was little opportunity to justify the inclusion of people within the study, but this is of less importance in qualitative research where the focus is on depth of understanding (Hussey and Hussey, 1997).

Multi-stage sampling was also used to recruit patients to be interviewed. The Torbay and District CHC health panel membership list was used as the sampling frame. There were about 80 members on the panel, drawn from across south Devon. The aim was for participation from no less than 10 individuals, from a sub-set of 30 who lived in Torbay. This stage of the process involved an element of purposive sampling, where the sample is picked for the research from people who are likely to produce valuable data (Denscombe, 1998). As those on the list were likely to be knowledgeable and interested in local health services, it was anticipated that they would add valuable data to the study. It has been noted that the involvement of patients in research does pose problems in terms of representativeness, and some claim that lay participants are rarely typical and that lay people are biased or partial (Entwistle et al, 1998). However, Entwistle *et al* also note that if the aim is for lay input to improve the relevance and quality of

research, rather than legitimise a decision or project, the involvement of people with a range of expertise and insight is more appropriate than statistical representativeness.

Securing professional involvement in the interviews was comparatively straight forward. Purposive sampling was used to select health professionals to be interviewed. This is where the researcher consciously considers: 'given what I already know about the topic and the events being studied, who is likely to provide the best information' (Denscombe, 1998). The health professionals did not need to be representative of their colleagues, as the focus was on in-depth examination of particular issues. GPs, nurse practitioners, practice nurses, health visitors, district nurses and HCAs known to the researcher were approached to be interviewed, to pick up on interesting issues from the survey stage of the research. The aim for the total sample was eight professionals.

A similar approach was taken with the management participants. Purposive sampling was necessary to secure involvement of management at different levels of the primary care policy process chain, as identified by Peckham and Exworthy (2003) - shown in figure 1.1 in chapter 1. It was decided to be sufficient to interview two managers from Torbay general practices, two from Torbay PCT, two from the South West Peninsula SHA, and two from the Department of Health. The interviewees were hand picked as they needed to be in jobs with responsibility for primary care development, at particular policy levels. In most cases, there were only one or two people who fulfilled these criteria. However, for the practice manager interviews there were more participants to choose from

(22 in Torbay in 2003). The aim was therefore to purposively select one manager from a 'traditional' practice and one from a 'skill mix' practice.

3.4 *Instruments/measurements*

The research instruments used were focus groups (with patients), interviews (with patients, professionals and management) and questionnaires (with patients and professionals). This section identifies the instruments used in each case and how they were designed. The questionnaires and interview guides are included as appendices to the study.

3.4.1 Focus groups

Focus groups involving patients were the first stage of the research. Focus group research is based on facilitating an organised discussion with a group to bring out insights through interaction, which may allow people to reveal more than they would be prepared to do individually (Kreuger, 1988). They are particularly suited to the study of attitudes and experience. They can encourage participation from those who feel they have nothing to say, or who do not want to be interviewed alone. They can also allow researchers to identify shared and common knowledge, and gather large amounts of data shorter periods of time (Fitzpatrick, 1991; Kitzinger, 1995; Gibbs, 1997). However, there are disadvantages identified by these authors: group dynamics can silence individual voices of dissent, confidentiality may be compromised by the presence of others, and they can be

intimidating for inarticulate or shy members.

Focus group research is different to group interviewing because there is no standard instrument, only a topic to be explored where group interaction is important (Kreuger, 1988). Skill mix is a complex topic for a lay person to understand so to promote discussion, 'key cards' were designed. Fourteen key cards were used with a range of statements in large font on A4 sheets of paper. The key cards were left in the middle of the table for each group and the task of the group was to discuss the statements and sort them into piles of those they agreed with, disagreed with, and did not know about. The process of deciding formed the outcome of the discussion. The statements on the cards are shown in appendix 3. They were designed to enable the focus groups to discuss the key themes relating to skill mix, identified in the literature. The statements covered diversification (GPs with special interests, a range of professionals based at the practice) and delegation (to practice nurses, health care assistants, and pharmacists). Service issues (communications, advice-giving, consultation length, access, knowledge on who does what, and continuity) were also included.

The role of a moderator is important in focus group discussions, to facilitate but not dominate the discussion, and encourage participation (Kreuger, 1988). Open-ended questions used as prompts may also be asked by the moderator if appropriate to draw out participants' views on interesting topics. Due to the strong role of the moderator, the same one is usually used in each group. The researcher was the moderator for each focus group in this study. Moderators may also take notes or record the group conversations, although this is often left

to an assistant (Kreuger, 1988). In this study, an assistant was not used; the difficulties this posed are discussed in the data collection section.

3.4.2 Interviews

Interviews were used with all three stakeholder groups in the study – patients, professionals and management. There are a number of advantages of interviews including easy administration, complex questions can be used, answers may be probed, and there is the capacity to correct misunderstandings and record spontaneous answers (Oppenheim, 1992; Sarantakos, 1993; Crombie and Davies, 1996). There are disadvantages identified by the authors though. The data generated can be cumbersome, they are time consuming and interview bias may have an effect. To help overcome these disadvantages, the discussions in the study were transcribed immediately after the event to keep on top of the data, overview grids were used to manage the data, and the sample sizes were kept relatively small. Throughout the study, the researcher was aware of the potential for class and gender bias in particular. Using a series of focus groups and interviews with patients, professionals and management also allowed for themes emerging in one interview to be tested in further discussions with the same stakeholder group, or with different groups later on.

The patient interview framework was designed to follow on from the focus group discussions. The framework was also designed to be used with interviewees who were likely to have some knowledge of skill mix in primary care as members

of the CHC health panel. The interview framework included thirteen questions and is attached in appendix 4. It was designed to give the participants a quick resume of skill mix, elicit general views, and probe in detail areas where no clear view emerged from the focus groups or where group findings appeared to contradict the literature.

The main method of collecting data from professionals was the postal questionnaire. This was supplemented with an interview framework, designed to follow on from the questionnaire to allow for an exploration of the survey results in more detail. The framework is shown in appendix 5; it includes questions on topics where the survey results appeared to contradict the literature. Five questions on influences, positive outcomes, difficulties and teamwork, were asked of all professionals. A number of filter questions were also included, designed to pick up issues with specific professional groups. Nurse practitioners were asked four questions, GPs eight, district nurses three, health visitors three, health care assistants four, and practice nurses three.

The interview framework for the management interviews was deliberately longer and included more complex questions. This was because it was the only measurement instrument used. The framework is included in appendix 6. Fifteen questions were posed, all open ended. The questions were designed to discover the work characteristics of the interviewees, and probe on the topics also included in the patient and professional stages of the research including the meaning of skill mix, influences, outcomes, barriers and concerns. The framework also aimed to follow up on issues identified in both the management

and policy literature.

3.4.3 Questionnaires

Questionnaires were used with patients and professionals. They are the most common measurement instrument of survey research and are popular for gathering views as they are relatively cheap, and quick and easy to administer (Denscombe, 1998). The advantages of questionnaires are that data is measurable, large numbers can be covered quickly, they are fairly low cost, they allow for anonymity, they allow the standardisation of answers, and they provide a considerable amount of research data. Pre-coded questionnaires are also easier for respondents to complete and answer, and the data tends to be easier to collect and analyse (Gibbs, 1997; Denscombe, 1998). However, the disadvantages are that a full understanding of attitudes is not possible and questions may be misunderstood. They may also have low response rates, which may bias the results. Whilst there is no acceptable response rate, when it is above 70%, most non-response bias disappears. This rate is rarely achieved though, so the potential for non-response bias remains in most questionnaire surveys (Barclay *et al*, 2002). To try and overcome these disadvantages, the use of a combined approach in this study enabled a more comprehensive understanding of the issues. Questionnaires were devised using participants' own words and piloting was undertaken to identify difficulties with understanding. Reminders were used to reduce the risk of non-response bias as much as possible, and the sample sizes allowed for lower response rates.

Both the questionnaires in the study were primarily analytical, intended to discover associations and explanations, rather than focus on description and enumeration (Oppenheim, 1992). A mix of response structures were used including multiple-choice, rating scales, ranking, and classification questions. Both questionnaires began with questions clearly related to the purpose of the survey and then moved on to more specific attitude questions. Background items were included at the end of both questionnaires. It is interesting to note that standard research approaches to checking the consistency of responses, such as repeating questions worded in slightly different ways, does seem to annoy participants who may refuse to answer the question again (McDonald and Langord, 2000). Therefore, this approach was not pursued. It was also thought that it would make the questionnaires longer. Questionnaires often go through a number of drafts before the final version and they should be piloted a number of times (Crombie and Davis, 1996). Both patient and professional questionnaires were piloted and went through three and four draft versions respectively. Both were designed for self-completion and return by post, and pre-coded so that results could be easily analysed.

During the patient stage of the research, the use of the questionnaire was designed to enable the inductively derived theory from the focus groups and interviews to be tested in a deductive way, with a larger number of people. Skill mix is a complex issue, particularly for patients, and the questionnaire utilised patients' own words as far as possible. However, there were still difficulties explaining some of the terms, particularly some hospital procedures which could

be carried out in primary care. The use of several sources, including English and medical dictionaries and the internet, allowed for some of the terms to be described in plain English. It was also important that the patient questionnaire was short as possible, thus it was restricted to two sides of A4 and included thirteen items; the questionnaire is included in appendix 7. The items in the patient questionnaire were designed to determine levels of agreement for delegation and diversification, and to identify tasks which patients' felt could be delegated. It also covered the relative importance of different service issues, which professionals patients would like at the practice, and views on flexibility and specialisation. Classification questions included health and working status, age, length of registration, and how many times patients had visited the surgery. Gender and practice ID were available from the distribution list.

A study by Jinks *et al* (2001) found that postal surveys in primary care could cause concern to patients, who may experience anxiety or anger as a result of unsolicited mail. The authors suggest ways of overcoming this. They include the inclusion of a contact name and number on documents, and a willingness to take calls and answer queries. Assurances that participation is voluntary, that information is confidential, and that care and treatment will not be affected are also suggested. The patient information sheet that accompanied the questionnaires covers these issues and is included in appendix 8. This was also adapted to accompany the professional questionnaires.

In the stage of the research involving professionals, questionnaires were used to deductively test existing theory from the literature, and from the patient stage of

the research. The professional questionnaire was considerably longer, including 30 items and running to four sides of A4. Devising the questionnaire for this stage in the study was easier as it could be longer and use a range of terms without too much explanation e.g. skill mix and continuity. The questionnaire is included in appendix 9. The items in the professional questionnaire related to delegation and diversification, influences on skill mix, advantages and barriers, concerns, teamwork, and role development. There were also filter items for GPs and registered nurses. These included identifying tasks suitable for delegation, views on special interest roles, continuity issues, and classification questions. Classification questions relevant to all included job title, gender, age, and years since qualification.

3.5 Ethical issues

This section is an explanation of the ethical issues relevant to this study. There are general ethical issues which apply to all research: informed consent, openness and honesty, the right to withdraw, protection from harm, debriefing, and confidentiality (Denscombe, 1998). Ethical considerations such as these are important in all research, but particularly so for health services research involving patients (Coolican, 1992). These factors are considered towards the end of the section.

In the NHS, there are additional processes for health researchers to consider. The research governance framework was put in place after concerns were raised

over medical research on organs removed without relatives' consent from NHS patients at Alder Hey (Department of Health, 2001). The key components of research governance include ethics approval, the identification of a sponsor, indemnity, data protection and management accounts checks, and local trust approval. The formal research governance processes described here were introduced after the start of this study. However, parts of the process were still applicable. Torbay PCT could be identified as the sponsor for the study, and as the researcher is an NHS employee, indemnity is offered by the employing organisation. Data protection issues were part of the ethics approval process, described below. Management accounts checks and local trust approval was not applicable at the time.

A key part of the research governance process remains the ethics approval process. This was in place when the study commenced. Ethics approval seeks to assure the safety and rights of participants in research through a system of Local Research Ethics Committees (LRECs) and Multi-Centre Research Ethics Committees, for multi-centre studies (MRECs). A lengthy form is filled out by all researchers seeking ethics approval, which is submitted to an ethics committee. The application form for this study is included as [appendix 10](#). The application for this study was submitted to the Torbay LREC, and the researcher attended their meeting in June 2001 to answer questions on the research. Ethics approval was given for the study by the Committee in June 2001. A copy of the approval letter is included in appendix 11.

As highlighted previously, there are ethical considerations for all research. It is

important that participants give informed consent for their involvement. The NHS ethics approval process requires that participants are given a comprehensive information sheet and that patients should give informed, written consent for participation. The patient consent form used in this study is attached as appendix 12. Participants should also be informed as to the specific purpose of the study, and the aforementioned information sheets fulfil this purpose (see appendix 8). The information sheets also included statements that participation was voluntary, and that participants could withdraw at any time. Although exposure to harm was not a large consideration in this study, it was thought that some patients may feel some psychological distress when recounting 'stories' of their experiences. Therefore, contact details for support and advice were included on the information sheet. Debriefing, which requires researchers to provide an account of the study and procedures, was communicated through the information sheets and verbally at each interview or group discussion. Confidentiality or anonymity was offered to participants and in this study, assured in written form on the information sheets and verbally during interviews and focus groups. In this study, further confidentiality clauses were added by the ethics committee. They stipulated that the interview tapes should be wiped following transcription and that the PCT Data Protection Officer be notified of the study. Both requirements were fulfilled. The necessity to wipe the tapes does mean that one of the cited benefits of tape recording, that the content may be analysed by other researchers, is not possible.

3.6 Data collection

This section describes the process of data collection in some detail, including actions carried out to enhance cooperation and response rates, letters to gatekeepers and participants, and problems encountered. The response rates are also reported at the end of each section. The focus groups are described first, followed by the interviews, and then the questionnaire survey.

3.6.1 Focus groups

The first stage of the research started in July 2001, with patient focus groups. Two GP practices, one traditional and one skill mix, fulfilled the role of gatekeepers to patients. They allowed the researcher to sit in their waiting rooms for a morning and afternoon respectively, to approach patients with a view to joining a group discussion. At the traditional practice, the level of agreement to participate was good, with nine patients volunteering to get involved. This may be because the receptionist on the day kindly asked people to give the researcher a couple of minutes. At the skill mix practice, recruitment was more difficult, with only three patients agreeing to participate. It seemed at this practice, patients were not interested, too busy or felt that making their views known would not make a difference. The names and addresses of those who agreed to participate were taken, and they were sent a letter to confirm the meeting details. The letter is attached as appendix 13.

Difficulties securing patient participation had been predicted at the outset, and Torbay PCT agreed financial support of a £10 attendance fee (for a one hour meeting), out of pocket expenses, and refreshments. Entwistle *et al* (1998) has also noted that it is important to remunerate lay participants for their efforts. Despite these measures, only three patients turned up to each group meeting, which were held in neutral settings: hotel meeting rooms. Those who gave reasons for non-attendance found they could not make the date, had lost interest, or were ill. Those who did attend were older people who did not work, and were mostly female.

As a result of poor attendance, it was determined that a further focus group was necessary. A different method of securing participation was explored, as the approach to patients in waiting rooms had yielded poor results. A range of ideas was considered to try and target men and younger people to provide a balance to the participants in the previous groups. Ideas included donating the unused attendance fees to a charity group such as Rotary and asking for half an hour after a meeting to hold the discussion or, going to a pub. Other options could have included targeting a specific group, such as a mothers and toddlers meeting. The option that was pursued was that a colleague approached one of their friends at a local sports and social club for help. Six people they knew agreed to get together for a drink after Sunday lunch to discuss the key cards. All six turned up, and the group included three men and five people of working age. In total, 12 patients participated in the focus group discussions.

All the focus groups were tape-recorded, but not without difficulties. All participants were made aware that they are being recorded so its presence was only a minimal distraction. One of the cited benefits of tape recording is that it allows the researcher to observe non-verbal communication and other cues. However, this benefit realised very little in the focus groups because of other pressures such as making sure the tape was recording, asking questions and prompting, and keeping to time. If focus groups were to be carried out again, it would be helpful to have an observer who could oversee the taping process, whilst the researcher focused on facilitating the discussion (Gardiner, 2004).

3.6.2 Interviews

Patient interviews followed the focus groups in November 2001. The CHC acted as gatekeepers to the participants. It was hoped that it may be easier to get involvement for the interviews as those who were approached were already on the CHC health panel, so were likely to be interested in health matters and making a contribution. The letter which was sent to them is attached as appendix 14. However, only eight patients from the Torbay sub-set of 30 responded and agreed to be interviewed. All eight were interviewed at the CHC offices. Again, the participants were mostly older people and it was decided that younger peoples' views would be necessary to get a reasonable range of perspectives. Two GP practices in Torbay known to have patient participation groups were approached to help with identifying possible interviewees. Both practices helpfully contacted a number of patients, but only two patients agreed to be

interviewed. In total, ten patients were interviewed.

The professional interviews were undertaken from April to June in 2003. As anticipated, it was easier to secure participation. This was because colleagues were selected who knew something about the area being researched and their involvement would therefore produce the most useful results. As the focus was on discovering the meaning behind the survey results, particularly picking up on where the results were different from the literature or between professional groups, large numbers did not need to be interviewed. It was decided that one interviewee from each profession would be sufficient, although as it emerged that GPs' views differed most from the literature and other professionals, two GPs were interviewed. Two GPs known to the researcher, one male and one female and from different practices, were approached and agreed to be interviewed. One was a member of the professional executive committee (PEC) of the PCT and may not be necessarily representative of colleagues, but did have wide insights into the area. There were only four nurse practitioners in Torbay; one known to the researcher was approached to be interviewed, and she agreed. The nurse involved is also the part-time practice nursing adviser for the PCT so similar issues to those previously identified as applying to the GP PEC member are relevant. One health visitor previously known to the researcher was approached to be interviewed and agreed. The district nursing adviser for the PCT was asked to provide names of district nurses who might be prepared to be interviewed, as the researcher had little previous contact with district nurses. The first one contactable by phone agreed to be interviewed. A practice nurse, who was also a PEC member and previously known to the researcher, was

approached to be interviewed and agreed. The practice nurse adviser was approached to provide details of HCAs who might be prepared to be interviewed and the first HCA contacted agreed to be interviewed. In total, eight primary care professionals were interviewed.

The management interviews commenced in December 2003. It was initially easy to secure participation for the interviews as those approached were colleagues in the PCT and constituent practices. Similarly, those approached at the SHA were also colleagues. It did, however, prove much more difficult to identify and secure the involvement of those from the Department of Health. Initial difficulties were experienced identifying suitable individuals following a restructuring of the Department. As a result, an e-mail was sent to the enquiries address from the Department website, with a brief overview of the study and a request for contact details of those who may be willing to be interviewed. An e-mail was received back with four suggestions and the two who seemed most relevant to the aims of the study were contacted. Both agreed to be interviewed. However, despite getting agreement in December for one interview, by May it had been cancelled three times. So as not to hold up the study, another web search of the Department website was undertaken. A policy lead from an 'agency' of the Department, the Modernisation Agency, was approached and agreed to be interviewed in July 2004. In total, eight interviews were held with management.

As with the focus groups, all the interviews were tape-recorded. However, the sound quality of some of the recordings was poor and only a few were of sufficient quality to be transcribed by another person. Another equipment

difficulty in this area related to the use of video conference (VC) technology. One of the management interviewees was based in Leeds and it was decided to conduct the interview by VC. Unfortunately, the technology was incompatible and the interview turned into a telephone interview. A Dictaphone was held to the receiver which did pick up most of what was said and the remainder was done from notes taken immediately after the interview.

3.6.3 Questionnaires

The final stage of the patient research, the postal questionnaire survey, started in March 2002, following on the focus groups and interviews. The involvement of GP practices was necessary, as they were gatekeepers to patient samples. However, it proved difficult to secure interest from a range of practices because time was needed to run a random sample from their clinical systems and merge the names and addresses into a cover letter. Although it was hoped that eight practices would be involved, only six agreed to take part – three traditional and three skill mix. A further difficulty was that one of the skill mix practices wanted to write to patients first, to seek volunteers. Discussions with supervisors indicated that this would introduce sample bias, as the sample would then not have been random and so they were excluded. In total, five practices agreed to act as gatekeepers to patient details.

To help get a reasonable response rate, the cover letter asking patients to help with the research was on the practice's headed note-paper and signed by the

GPs (see [appendix 15](#)). A stamped address envelope was also included. Despite this, the response rate was only 28%, with 241 usable returns from the total of 860. However, this was sufficient to allow the results to be produced with the degree of confidence required. The issue of a reminder letter was considered, but not sent as the required response rate had been achieved and the postage costs and time involved were prohibitive. In total, 241 usable patient questionnaires were returned.

The professional stage of the study commenced in December 2002 with a postal questionnaire to all GPs, nurse practitioners, practice nurses, health visitors, district nurses, and HCAs working in Torbay PCT. Administration was easier than during the patient research as the mailing lists were readily available in the PCT. The internal courier system was also used for the distribution and return of the questionnaires, helping to keep the costs down. Possibly because the researcher works in the area being studied, the response rate was generally good; 48% of the questionnaires were returned, 128 out of the total 278. One reminder was necessary to achieve this. In this case, a reminder was issued because the initial response rate was not high enough to allow the results to be produced with the degree of confidence required. Although the professional questionnaire was piloted with a number of different health professionals prior to distribution, some responders claimed it had taken them a very long time to fill in and not everyone could answer all the questions. This did not emerge during the piloting; estimated completion times were only ten minutes and the wording was altered if it posed difficulties. This could have affected response rates. In total, 128 useable professional questionnaires were returned.

3.7 Data analysis

This section describes the way in which data were analysed, including the organisation and management of the data, and instruments used. The analysis of the qualitative data is considered first, and described step by step. The statistical techniques used to analyse the quantitative data are then described and justified.

3.7.1 Qualitative analysis

The approach taken to analyse the qualitative data was thematic analysis, which is a way to analyse how informants talk about their experiences (Taylor and Bogdan, 1984). Aronson (1994) describes the pragmatic process of thematic analysis, the steps of which have been followed here.

1. Collect the data through audiotapes to study the talk of a session. From transcribed conversations, patterns of experiences can be listed which can come from direct quotes or paraphrasing common ideas.
2. Identify all data that relate to the already classified patterns. All talk that fits under the specific pattern is identified and placed with the corresponding pattern.
3. Combine and catalogue related patterns into sub-themes. Themes are defined as units derived from patterns such as conversation topics, vocabulary, recurring activities, meanings and feelings. Themes that emerge from the informants' stories are pieced together to form a comprehensive picture of their collective experience. The coherence of ideas rests with the

analyst who has studied how ideas or components fit together in a meaningful way, when linked together.

4. Build a valid argument for choosing the themes. This is done by reading the related literature. By referring to the literature, information is gained that allows the interviewer to make inferences. Once the themes have been collected and the literature has been studied, the researcher is ready to formulate theme statements to develop a story line.

The actual analysis was undertaken by coding, which is the starting point for most forms of qualitative data analysis. Bryman (2001) identifies a number of steps and considerations in coding, shown in figure 3.6 and these steps are followed for the analysis of the data.

Figure 3-6: Qualitative data analysis: steps and considerations in coding

- | |
|---|
| <ol style="list-style-type: none">1. <u>Code as soon as possible.</u> It is preferable to code as you go along to sharpen understanding of data and alleviate feelings of being swamped by data.2. <u>Read through the initial set of transcripts, notes, documents etc.</u> Do this without taking notes at this stage.3. <u>Read through the transcript again.</u> This time make marginal notes about significant remarks or observations; initially, they will be basic key words used by respondents or names given to data themes. This is the start of coding, generating an index of terms to help with interpretation of the data.4. <u>Review the codes.</u> In relation to the transcripts. Are two words being used to describe the same phenomena? Do some codes relate to concepts and categories in the literature? Are there connections between the codes?5. <u>Consider general theoretical ideas in relations to codes and data.</u> Try to outline connections between concepts and categories. How do they relate to the literature?6. <u>Keep coding in perspective.</u> It is part of the analysis, albeit important. It helps to reduce the vast amount of data collected. |
|---|

Source: Adapted from Bryman (2001)

To analyse the qualitative data, the researcher started by typing up each transcript as soon as possible after the event. Although typing of this kind can be onerous, it may be seen as the starting point for analysis through familiarisation with the data once more. As far as possible, each transcript was coded after the event, following the stages outlined in figure 3.6. The transcripts were also read for specific remarks and quotes which could be used to illuminate emerging findings. An example of an analysed transcript is shown in appendix 16. As can be seen from the transcript, interesting quotes which help to illuminate what is being said at that point, and which could be considered for inclusion in the results chapter, are highlighted in yellow. Notes in the margins to summarise/explain what is being said are made if appropriate and these may be used as codes. Key words in the text which may also be codes are highlighted in blue. Where possible, codes are linked to the literature review.

The patient focus group transcripts were the first to be analysed and overview grids were produced. These have been advocated as an effective way to proceed with the interpretative part of the analysis of focus group transcripts (Morgan, 1993). It involves constructing a large chart or table, produced on an Excel spreadsheet in this case, which provides a descriptive summary of the content of the group discussions. Topic headings – in this case the key card statements - appear on one axis and focus group session identifiers on the other. The cells contain brief summaries of the content of the discussion for each group. The overview grid produced as a result of the patient focus groups is attached as appendix 17. Coding the transcripts before constructing the overview grid was useful. The process of developing the grid often leads to insights that contribute

to later stages of interpretative analysis. The use of overview grids proved so useful in managing the data that they were also used for the three sets of interviews.

The use of computer software to assist with the qualitative analysis was considered. For example, NUD*IST, one of the leading content analysis packages, and TextSmart which is SPSS's module for coding and analysing open ended questions. However, access to such software was limited and it was determined that an equally useful analysis could be done manually, as the number of transcripts was not too onerous.

3.7.2 Quantitative analysis

The questionnaire data were input into a pre-designed coding frame, produced from the questionnaire, on the Statistical Package for Social Sciences (SPSS) for Windows software. An appropriate range of statistical tests to run on the data were identified following discussion with a statistician. The aim of the tests was to summarise, describe and display the data, and make inferences from sample data. As it was not possible to ascertain whether the data had a normal distribution because of insufficient detailed information on the population, non-parametric techniques were suggested for confirmatory data analysis. Exploratory data analysis included presenting frequencies in tabular and graphical form, measuring location through means, and measuring dispersion through standard deviations.

Confirmatory data analysis included tests of difference including chi-squared tests, Wilcoxon Mann-Whitney and Kruskal-Wallis tests. Chi-squared tests are non-parametric tests of statistical significance for bivariate tabular analysis (also known as crossbreaks), which allow the researcher to determine the degree of confidence they can have in accepting or rejecting a hypothesis. Chi-squared tests are typically used with two different samples, and in this study were used for analyses involving two characteristics (such as gender or practice type) and questions with only two possible answers (for example, yes or no). The Wilcoxon Mann-Whitney Test is a powerful non-parametric test used for comparing two populations, which can also be applied to ranked, ordinal data. These tests were used for analyses of ranking questions against those where there were no more than two characteristics (such as gender or practice type). The Kruskal-Wallis test is used most frequently in the analysis, to compare three or more samples, to test the analysis of variance. It is the logical extension of the Wilcoxon Mann-Whitney Test. The test was used in analyses with more complex characteristics of more than two possible answers (such as age ranges) against questions involving ranking (such as preferences for professionals to be based at the practice).

3.8 *Validity and reliability*

Validity and reliability are associated with the credibility of research (Hussey and Hussey, 1997). Put simply, if findings can be repeated then a study is reliable and if the findings accurately represent what is really happening, it is valid. It has

been argued that qualitative studies, such as this, achieve higher validity as the data produced are closer to reality, the opinions and views of the researcher are considered, the methods used are more open and flexible, there is a communicative basis, and there is a successive expansion of data (Sarantakos, 1993).

However, reliability may be weaker in predominantly qualitative studies. Specific strategies to reduce threats to reliability include the review of findings and peer examination, and using a variety of data sources (Powers and Knapp, 1995). In this study, findings have been presented for publication and poster displays for review and peer examination. Regular discussions with supervisors on findings have taken place and data sources include existing literature. Combined methods are used through the study. It has also been noted that a study may be determined to be reliable if the reader can follow an 'audit trail' and if another researcher (given similar data, perspective and situation) could draw comparable conclusions (Lincoln and Guba, 1985). The aim in this chapter has been to be clear and open about the perspectives taken and the situation in which the study took place, to provide the necessary audit trail.

Generalisability is the extent to which the results can be applied to situations beyond the study, and is linked to reliability. It has been noted that generalisability is usually weaker in predominantly phenomenological studies and that local research does tend to suffer problems of generalisation (Sarantakos, 1993; Crombie and Davis, 1996). However, Gummesson (1991) argues that in a phenomenological study you may be able to generalise from one setting to

another if the analysis captures the interactions and characteristics of the phenomena being studied. The aim in this study is to be clear about the analysis of findings and the characteristics of the area and participants in the study. Further, it was noted in the national survey of patient views on general practice that, other than those living in London, there were few regional differences in patient views (Department of Health, 1999). Therefore, local research into patient attitudes on skill mix in primary care may be generalisable to other areas.

Triangulation is a popular means for improving rigour in research. Seeing things from different perspectives and the opportunity to corroborate findings can enhance validity (Denscombe, 1998). In this study, questionnaires supplement the focus groups and interviews as instruments. A mix of methodologies does not prove the researcher has got it right, but it can help to give some confidence that findings are not too closely tied up with the method of data collection. However, it has also been noted that triangulation is difficult to perform properly as data collected using different methods comes in different forms which can defy direct comparison (Barbour, 2001).

3.9 *Boundaries of the research*

As with any research, there are boundaries and it is important to define these. This research focuses on skill mix in primary care. By implication it does not cover the changes and developments in skill mix which have been made in secondary and tertiary care. However, some of the changes in these sectors have impacted on primary care and this is considered. The study does not

include consideration of skill mix in intermediate care, where care alternatives between acute and primary care are developed, focusing on nursing home care and domiciliary care. Primary care in this research is taken to mean the GP and the practice team, and practice-based services. It does not cover other aspects of care which may fall into the primary care definition such as NHS Direct and A&E services. Although in the UK, primary care is predominantly delivered through the NHS, the focus of the study, it is not exclusively so. This study does not cover private primary health care provision.

There are geographic limits to the research which is undertaken in the researchers own organisation, Torbay Care Trust. Torbay can be considered a suburban area and these have been found to be more developed in terms of service provision and organisation (Leese and Bosanquet, 1995). The research took place in the time period from 2000 until 2004, which needs to be borne in mind when interpreting results. Policies which may have influenced views during this time included a new GP contract and a national target for access to a GP or primary care professional.

3.10 Summary

This chapter has described the major methodologies used to collect the data to meet the aim and objectives of the research identified in the introduction chapter 1. The chapter also provides a detailed description of the actual collection of the data, and analysis. Following on from this description and analysis of the methods used, the results of the study are shown in chapter 4.

4 Results

4.1 Introduction

This chapter focuses on the presentation and analysis of the collected data. It reports the findings from the patient focus groups, interviews and survey. The results of the professional survey and interviews are presented. The management interview outcomes are also shown. The qualitative results are presented in text form and as far as possible in the respondents' words. Direct quotes form an important part of the chapter. The quantitative data is shown in tabular form and supported by text explanations. Throughout, the quantitative results are noted as significant if $p < 0.05$. In each section, the results are reported as far as possible in the order in which the research was undertaken i.e. patient views presented first, followed by findings from professional and management stages of the research.

4.2 Structure of the chapter

This section briefly describes the outline of the chapter.

- The response rates section shows the response rates for the patient and professional surveys.
- The profile of participants shows the characteristics of those involved in the patient, professional and management stages of the research.
- The interpretation of the term skill mix section reports findings linked to delegation, diversification, teamwork, professional development, needs-led services, medical/nursing models of care and efficiency.

- The service context reports findings relating to communications, local services, continuity, consultation length, integration between health and social care and advice-giving.
- The drivers for change reports findings linked to access, workload, premises, the shift of work from secondary to primary care, costs, contracts and nurse prescribing.
- Issues in skill mix focuses on competencies, education and training, supervision, time, employer, independent contractor status, accountability, access to information, professional issues, quality and attitudes.
- Professionals involved in skill mix include attached nurses, GP-employed nurses, GPs, support staff and others.
- The summary and key points section at the end summarises the main findings from the research in figures.

4.3 *Response rates*

4.3.1 Patients

Twelve people participated in three focus groups. Ten patients were interviewed, eight of which were from the Torbay sub-set of the Torbay & District Community Health Council (CHC) health panel, which consisted of 30 people. Two further interviews were held with patients from Torbay GP practice patient participation groups.

Two-hundred and forty-one patients completed and returned usable questionnaires (28% response rate), from a sample of 860 patients, randomly selected from the lists

of five Torbay GP practices. The practices were categorised as either 'traditional or 'skill mix'. There were 135 responses from group 1 ('traditional' practices) and 106 from group 2 ('skill mix' practices). This exceeded the minimum number of responses needed to allow the study to identify differences of 20% between practice types (e.g. 50% to 70%), 80% of the time ($p = <0.05$).

4.3.2 Professionals

One-hundred and twenty-eight usable questionnaires were returned (46% response rate). This allows the results from the sample to give 95% confidence intervals of approximately $\pm 8\%$. The total population was 278 primary care professionals in Torbay - GPs, nurse practitioners (NPs), practice nurses (PNs), district nurses (DNs), health visitors (HVs) and primary health care assistants or equivalent (HCAs). Table 4-1 shows the response rates by profession. Other than for HVs and DNs, response rates were over 50%. It may be that lower response rates were recorded for DNs and HVs as the perceived salience of the study was less for them.

Table 4-1: Professional survey: response rates by profession

<i>Profession</i>	<i>Total number</i>	<i>Number and rate of Responses</i>
Nurse practitioners	4	4 (100%)
Health care assistants	13	8 (62%)
Practice nurses	62	34 (55%)
GPs	88	47 (53%)
Health Visitors	30	13 (43%)
District Nurses	81	20 (25%)

4.4 Profile of participants

4.4.1 Patients

Table 4.2 shows the patient interview and focus group participant characteristics.

Table 4-2: Patient focus groups and interviews: participant characteristics

		<i>Focus groups</i>	<i>Interviews</i>	<i>Total</i>
Gender	Male	4	2	6
	Female	8	8	16
Age	Over 60 yrs	6	7	13
	40 to 60 yrs	4	2	6
	Up to 40 yrs	2	1	3
Economic status	Retired	6	7	13
	Working	4	1	5
	Of working age, but not working	2	2	4
Ethnicity	White European	12	10	22
Self assessed health status	Good	3	7	10
	Moderate	3	2	5
	Poor	0	1	1
Registered practice level of skill mix	“Traditional”	4	4	8
	“Skill mix”	4	5	9
Registered practice level of deprivation	Jarman score <0	3	6	9
	Score 0-10	7	3	10
	Score > 10	1	2	3

Notes:

Level of skill mix development is taken from answers to six questions on levels of delegation and diversification (see chapter 3)

Deprivation is measured using the Jarman score, using population figures from 1st April 2000. The score is derived from eight variables taken from the 1991 census and indicates a practice’s workload. The national average is 0 so scores less than zero show lower levels of deprivation and higher than 0 higher levels.

Those participating were mostly female, retired, aged 60+ years, white European and in good health. The practices that they were registered with have quite high levels of skill mix development and relatively low levels of deprivation, measured using the

Jarman index of deprivation. These factors need to be borne in mind when considering the generalisability of the results.

For the patient survey, the practices whose patients were involved were allocated into a 'group'. Group 1 included patients from more 'traditional' practices and group 2 from practices with more 'skill mix' development. More information on the how practices were assigned to a group is in the methodology chapter 3, in the sampling section. There were three practices in group 1 and two in group 2 although it was hoped there would be three in each. This did affect responses: 135 (56%) from group 1 and 106 (44%) from group 2.

Overall, the profile of respondents indicated that most were female, in good health, not working and had been registered with their practice for more than 5 years. There were few significant differences in patient profiles by group. One-hundred and twenty-eight (53%) of the respondents were female and there were no significant differences between the groups ($\chi^2 = 1.04$, $df = 1$, $p = 0.309$). One-hundred and fifty-nine (66%) of those who responded described their health as 'good', with a further 70 (29%) describing it as moderate; there were no significant differences between the groups ($\chi^2 = 0.14$, $df = 2$, $p = 0.931$). One-hundred and twenty-five (52%) of those who responded described themselves as not working; significantly more in group 2 were not working (62% versus 43%, $\chi^2 = 8.29$, $df = 1$, $p = 0.004$). One-hundred and seventy-four (72%) had been registered with their practice for five or more years; there was no significant difference by group ($U = 6697$, $Z = -0.495$, $p = 0.621$).

When considering age ranges, there was a difference between the two groups. Table 4.3 shows the age ranges of respondents, by group. There is a fairly even split across age ranges although the mean age of those in group 2 was significantly higher ($U = 4670$, $Z = -4.139$, $p = <.001$).

Table 4-3: Patient survey: age range, by practice type group

<i>Age range in years</i>	<i>Group 1 'traditional practices'</i>	<i>Group 2 'skill mix practices'</i>	<i>Total</i>
16-24	12 (9%)	4 (4%)	16 (7%)
25-34	13 (10%)	13 (13%)	26 (11%)
35-44	31 (23%)	7 (7%)	38 (16%)
45-54	33 (25%)	13 (13%)	46 (19%)
55-64	17 (13%)	14 (14%)	31 (13%)
65-74	17 (13%)	29 (28%)	46 (19%)
75+	11 (8%)	23 (22%)	34 (14%)
Total	134 (100%)	103 (100%)	237 (100%)

4.4.2 Professionals

Table 4.4 shows the gender of those who responded to the survey, by job type. The table shows that 89 (73%) were female.

Table 4-4: Professional survey: job type and gender of respondents

<i>Profession</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
GPs	31 (72%)	12 (28%)	43
Nurse practitioners	0	4 (100%)	4
Practice nurses	0	34 (100%)	34
District nurses	1 (5%)	19 (95%)	20
Health visitors	1 (8%)	12 (92%)	13
Health care assistants	0	8 (100%)	8
Total	33 (27%)	89 (73%)	122

There was a significant association between job role and gender as the majority of GPs who responded were male yet the responses from the other professional groups were almost entirely made up of females ($\chi^2 = 68.666$, $df = 5$, $p = <.001$). This distribution was representative of the gender balance of the employment of professionals in Torbay.

Table 4.5 shows the age ranges of those who responded to the survey by job type. The table shows that the majority were aged 35-44 and 45-54 years. However, there were significant differences in age across the professional groups (Kruskal-Wallis = 13.33, $df = 4$, $p = 0.010$). Those aged under-35 years were predominantly DNs and HCAs. Those aged between 35-54 years were predominantly GPs and PNs. Those aged 55-64 years were predominantly PNs and HVs.

Table 4-5: Professional survey: age of respondents and % within job

	16-24	25-34	35-44	45-54	55-64	Total
GPs	0	2 (5%)	19 (46%)	19 (46%)	1 (2%)	41
Nurse Practitioners	0	0	2 (50%)	1 (25%)	1 (25%)	4
Practice nurses	0	1 (3%)	13 (38%)	14 (41%)	6 (18%)	34
District nurses	1 (5%)	5 (26%)	6 (32%)	6 (32%)	1 (5%)	19
Health visitors	0	0	4 (31%)	4 (31%)	5 (38%)	13
HC assistants	0	2 (29%)	1 (14%)	2 (29%)	2 (29%)	7
Total	1 (1%)	10 (8%)	45 (38%)	46 (39%)	16 (14%)	118

Table 4.6 shows how long those who responded had been qualified, by job type. The table shows that 84 (70%) of those who responded had been qualified for sixteen years or more. There was a significant association between job role and years since qualifying (Kruskal-Wallis = 11.741, $df = 3$, $p = 0.008$). The majority of

those qualified between one to five years were HCAs and those qualified between six and ten years were DNs, HVs and HCAs. GPs and DNs were mostly qualified between 11 to 15 years. Those qualified for 16 or more years were predominantly PNs and GPs.

Table 4-6: Professional survey: years qualified and % within job

	1-5	6-10	11-15	16+	Total
GPs	1 (2%)	1 (2%)	10 (24%)	29 (71%)	41
Nurse practitioners	1 (25%)	0	0	3 (75%)	4
Practice nurses	0	1 (3%)	1 (3%)	32 (94%)	34
District nurses	3 (16%)	3 (16%)	3 (16%)	10 (53%)	19
Health visitors	0	2 (15%)	2 (15%)	9 (69%)	19
HC assistants	2 (33%)	2 (33%)	1 (17%)	1 (17)	6
Total	7 (6%)	9 (8%)	17 (14%)	84 (72%)	117

Amongst the GP respondents, 19 (40%) were GP trainers and 27 (57%) were members or fellows of the Royal College of General Practitioners. Amongst the nurses, 63 (88%) were based at the GP surgery and 47 (67%) had undertaken a post-registration training course in the last year.

To follow up the issues raised in the survey at least one of each type of professional was interviewed. As GPs views differed more than other professional groups, two were interviewed.

The characteristics of the interviewees are shown in table 4.7; as can be seen the majority of the interviewees were female. There was a good mix of practice sizes and practices with different levels of deprivation.

Table 4-7: Professional interviews: participant characteristics

<i>Profession</i>	<i>Gender</i>	<i>Practice list size</i>	<i>Practice deprivation index 2002/3 (Average = 100)</i>
GP	Female	3624	109.53
GP	Male	10582	101.17
Nurse practitioner	Female	2306	102.59
Practice nurse	Female	4691	96.09
District nurse	Female	9262	103.92
Health visitor	Female	5847	96.81
HC assistant	Female	2301	102.59

4.4.3 Management

Eight individuals were interviewed who held management positions at different levels of the policy process. Two general practice managers (PMs) from Torbay and two managers from Torbay PCT (one middle level manager and one director) were interviewed. Two directors from the South West Peninsula SHA and two policy leads for primary care from the Department of Health (DH) and the National Primary Care Development Team (NPDT) were interviewed. Four were male and four female.

The interviewees were asked for their backgrounds, to ascertain whether this would influence their views. Three had held practice management roles, four health authority management roles, two PCT management roles, three other public sector management roles, two had health or social care professional backgrounds, one

private sector management experience, one had worked in secondary care and one had an academic background. The interviewees were also asked how long they had been in NHS management. The average length of service was 7.7 years, with the longest time in the NHS ten years and the shortest four.

4.5 Interpretation of the term 'skill mix'

Interpretation of the term skill mix by the respondents and from the literature included aspects of delegation, diversification, teamwork, personal development, needs-led services, medical and nursing models of care, efficiency. These topics thus form the sub-headings for this section.

4.5.1 Delegation

Patients in the focus groups and interviews mentioned delegation frequently, in the context of greater use of nurses to help GPs reduce their workload. However, it was noted that some patients may find skill mix less acceptable. There seemed to be a lack of experience of skill mix, with the majority mentioning fairly basic tasks carried out by nurses e.g. blood pressure, advice on weight loss:

"I think the whole thing with GPs is they take the complete workload and they haven't got round to the stage of realising what expertise they have got around them."

(Interview 3 – Patient)

"There seems to be time that could be saved if people were happy to see the practice nurse whereas my experience and of business as well is that people usually do not want to see the nurse they want to see the doctor they are registered with ... I think we need to educate the public that nurses are experienced and qualified and good at their job so to ease the pressure on the doctor's time."

(Interview 4 – Patient)

“The only thing I’ve any experience of is being seen by a Nurse for weight a few years ago but that is something that is traditionally done by a Nurse.”

(Interview 2 – Patient)

In the survey, patients were asked to rate their level of support for delegation from GPs to practice nurses and from practice nurses to assistants. One hundred and fifty nine (68%) agreed that PNs could take on more work from GPs; 48 (21%) were undecided and 27 (11%) disagreed. There were no significant differences in views by practice type ($U = 6456$, $Z = -0.579$, $p = 0.563$), for age (Kruskal-Wallis = 1.91, $df = 6$, $p = 0.928$), gender ($U = 6441$, $Z = -0.803$, $p = 0.422$) or length of registration (Kruskal-Wallis = 1.54, $df = 3$, $p = 0.673$). One-hundred and fifteen (49%) agreed that assistants could take on more work from PNs; 75 (32%) were undecided and 43 (18%) disagreed. Again, there were no significant differences on agreement by practice type ($U = 6449.500$, $Z = -0.348$, $p = 0.728$), for gender ($U = 6726.500$, $Z = -0.092$, $p = 0.927$), age (Kruskal-Wallis = 5.85, $df = 6$, $p = 0.440$) or length of registration (Kruskal-Wallis = 1.15, $df = 3$, $p = 0.765$).

Professionals, in the survey, were also asked to rate their level of support for delegation from GPs to practice nurses and from practice nurses to nurse assistants. One-hundred and seven (84%) agreed that PNs should take on work from GPs; 14 (11%) were neutral and 6 (5%) opposed. There were no significant differences in views in terms of years since qualification (Kruskal-Wallis = 2.562, $df = 3$, $p = 0.464$). However, NPs were significantly more supportive (Kruskal-Wallis = 26.424, $df = 5$, $p = <.001$) and professionals aged 16-24 years were significantly less supportive (Kruskal-Wallis = 15.374, $df = 4$, $p = 0.004$). One-hundred and six (83%) agreed that nurse assistants could take on work from PNs; 16 (13%) were neutral and 4 (3%) opposed. There were no significant differences in views by job type (Kruskal-Wallis =

9.741, $df = 5$, $p = 0.083$), years since qualification (Kruskal-Wallis = 2.486, $df = 3$, $p = 0.478$) or age (Kruskal-Wallis = 3.587, $df = 4$, $p = 0.465$).

In the interviews, the NP was supportive of delegation from GPs to nurses as it promoted patient choice. It was felt that it needed to be accompanied by appropriate, comprehensive training. In the management interviews, delegation was mentioned in relation to understanding of skill mix:

“It’s fine as long as it is appropriate and people are appropriately trained then, yes ... What we have to be sure is we’ve got the right people in the right place to make it possible. There is a worry that as more and more is delegated down but with less and less training, or it’s in-house ...”

(Interview 4 – NP)

“... it’s about delegation to people who may not have traditionally have been associated with giving a particular service or role.”

(Interview 3, PCT Manager)

“Well, as you said in your earlier definition I think it’s mostly about delegation.”

(Interview 7, DH Manager)

4.5.2 Diversification

Patients mentioned diversification, including enhanced roles for GPs and the use of other professionals, less frequently in the interviews and focus groups when thinking about skill mix. There seemed to be limited experience of this aspect of skill mix:

“Does it mean bringing in Physiotherapy into the surgery or counselling?”

(Focus group 2 – skill mix practice)

“We happen to know, because of my husband’s illnesses, that there is one particular doctor who specialises in heart problems ...”

(Interview 4 – patient)

“I’ve also been to some of the other doctors as well – Dr H does ophthalmology. He’s taken on my eyes from the hospital and he is helping the hospital side.”

(Interview 6 – patient)

In the survey, patients were asked to rank the importance of “a wide range of health and social care professionals at the practice”. This aspect of skill mix received a below average ranking of 3.6 (with 1 being the highest possible rank and 5 five the lowest). There were no significant differences in ranking by practice type ($U = 5888$, $Z = -0.998$, $p = 0.318$) or gender ($U = 5633.500$, $Z = -1.632$, $p = 0.103$). However, those aged 16-54 ranked it significantly higher (Kruskal-Wallis = 13.441, $df = 6$, $p = 0.037$).

Professionals were also asked about their levels of support for diversification where new professionals joined the team and staff acquired new roles. In the survey, 121 (95%) were supportive of new types of professional joining the team; 5 (4%) were neutral and 1 (1%) opposed. There were no significant differences in views by job type (Kruskal-Wallis = 8.290, $df = 5$, $p = 0.141$), years since qualification (Kruskal-Wallis = 1.950, $df = 3$, $p = 0.583$) or age (Kruskal-Wallis = 2.651, $df = 4$, $p = 0.618$). Ninety-three (73%) were supportive of existing team members taking on new roles; 32 (25%) were neutral and 3 (2%) in opposition. There were no significant differences in views by job type (Kruskal-Wallis = 6.158, $df = 5$, $p = 0.291$), years since qualification (Kruskal-Wallis = 3.420, $df = 3$, $p = 0.331$) or age (Kruskal-Wallis = 3.526, $df = 4$, $p = 0.474$).

Diversification, in terms of change and role development was mentioned in the management interviews, with a move from the more ‘traditional’ GP model of primary care:

“... it (skill mix) conjures up a picture for me of, both the range of professionals and the range of tasks that are provided in primary care, what has traditionally been considered as general practice. I think now we would want to, and most people in primary care would want to, challenge the traditional sort of view about what that was.”
(Interview 3, SHA manager)

“... skill mix in primary care for me is probably a changing of the traditional GP role to perhaps get practice nurses and other people, other professionals coming in.”

(Interview 6, PCT manager)

4.5.3 Teamwork

Professionals in the survey were asked to what extent they agreed with a range of statements on teamwork and skill mix. Table 4.8 shows the results.

Table 4-8: Professional survey: views on teamwork

Statement	In agreement	Neutral	Disagree
I feel part of the primary care team	107 (84%)	8 (6%)	6 (5%)
I am clear about my contribution to the goals of the team	101 (79%)	19 (15%)	5 (4%)
In our team there are clear, shared goals	55 (43%)	23 (18%)	10 (8%)
I feel that my role in the team is clearly understood by other team members	82 (64%)	28 (22%)	14 (11%)
Different professionals should lead the team for different functions	88 (69%)	28 (22%)	7 (6%)
Regular monitoring and review of the work of the team takes place	56 (44%)	30 (23%)	37 (29%)
In our team there are clear cut, non-overlapping roles	42 (33%)	31 (24%)	50 (40%)

As can be seen, the highest levels of agreement appear for feeling part of the primary care team and clarity of contribution. The main areas of disagreement emerged as clear cut, non-overlapping roles and regular monitoring of work. There were no significant differences in views by job type for shared goals (Kruskal-Wallis = 3.540, df = 5, p = 0.617), contribution to the team (Kruskal-Wallis = 3.200, df = 5, p = 0.669), clear roles (Kruskal-Wallis = 7.468, df = 5, p = 0.361), monitoring teamwork (Kruskal-Wallis = 8.141, df = 5, p = 0.149) and shared leadership (Kruskal-Wallis =

4.522, df = 5, p = 0.477). However, DNs, HCAs and HVs were less likely to feel part of the team.

Team effectiveness was followed up in the interviews when professionals were asked how well they felt their team functioned. Answers were generally positive and included the benefits of small teams, regular meetings, personality mix, co-location, social events and empowerment. However, it was also noted that maintaining teamwork could be time consuming and there could be conflicts over different pressures:

“I think we generally do work as a team, and we are small which helps, we have everyone on site which helps, district nurses don’t need to make an appointment with us to speak to us ...”

(Interview 1 – GP)

“I think sometimes maybe, everyone has their own pressures and maybe when you’re working in your room and people don’t appreciate your pressures ...”

(Interview 4 – NP)

Professionals in the survey were also asked to choose between “autonomy, where I have the ability to manage myself and my work as I see fit” and “teamwork, where I am part of a group where a range of activities are co-ordinated”. Eighty-eight (69%) favoured teamwork over autonomy and 29 (23%) favoured autonomy; the remainder did not answer the question. Taking into account job type, the main difference was that half the HVs favoured autonomy. The highest proportions of those who favoured teamwork were HCAs (7 or 88%) and GPs (39 or 82%). In the interviews, professionals were also asked whether they favoured teamwork over autonomy. There was a general feeling that teamwork was favoured, although the HV, DN and PN interviewed preferred to work autonomously. Group work was preferred because participants felt that they could not do everything and they recognised the

contribution of others. Working autonomously was preferred by some as it was felt by some to be the nature of the job, the individuals liked to make their own decisions and they felt they had the professional freedom and sufficient knowledge and experience to do so:

“Well, we can’t do everything ... and there are things that other people do better than me and I am very willing to let them do that. I’ve got my skills which are about diagnosis and therapeutics and nurses are good at following protocols ...”

(Interview 1 – GP)

“I prefer to work autonomously. I like to make decisions, I feel I know my job well enough and am experienced enough to make appropriate decisions and I know who to go to, who to refer to.”

(Interview 7 – DN)

Professionals in the survey were also asked whether their team had held a team building event during the last year. Ninety-three (73%) indicated that their team had. All four of the NPs had attended an event and 38 (80%) GPs and 26 PNs had (76%). The lowest proportion of those who had attended a team event was HVs (8 or 62%). There was no significant association between attending a team event and positive views towards the aspects of team development identified in table 4.8.

Teamwork was mentioned in the management interviews as important although it was noted that it did not always seem to occur in practice:

“Skill mix is actually using the whole team; it would be a complete and utter team effort to develop whichever service you want to provide for your patient population.”

(Interview 1, PM)

“Can I be provocative and say we still have some way to go before we make a reality of the primary health care team? Practically speaking, we are operating in a model where GPs see themselves as leaders of the team ...’ I own the business, therefore I have the right to determine how this business should be run’ ... so you have collections of individuals who practise under the same roof ...”

(Interview 3, PCT Manager)

4.5.4 Personal and professional development

Professionals in the survey were asked to consider to what extent professional development for GPs and nurses had influenced skill mix. Out of seven possible influences listed, professional development for nurses received a mean rank of 3.79 and GP development a mean rank of 5.40 (with 1 being the most influential and 7 the least).

Professionals were also asked about job satisfaction and making best use of skills as possible advantages of skill mix. Out of six possible advantages listed, making the best use of the skills received an average ranking of 2.42 (with 1 being the most important and 6 the least). Over half, 71 (56%) also indicated that it had actually occurred as a result of skill mix. There was a significant association between rank and whether the advantage had occurred ($U = 1417.500$, $Z = -2.131$, $p = 0.033$) but no significant differences in ranking by profession (Kruskal-Wallis = 5.237, $df = 5$, $p = 0.388$). Increased job satisfaction received an average rank of 3.95 (with 1 being the most important and 6 the least). Only 32 (25%) felt that increased job satisfaction had occurred as a result of skill mix. There were no significant differences in ranking by profession (Kruskal-Wallis = 5.069, $df = 5$, $p = 0.407$). Professionals were also asked how important an influence doctors concentrating on more complex cases was. This influence received an average rank of 4.12 (with 1 being the most important and 6 the least). Only 31 (24%) felt it had occurred as a result of skill mix. There was an association between whether it had occurred and ranking ($U = 848.500$, $Z = -3.050$, $p = 0.002$) with GPs ranking it higher (Kruskal-Wallis = 11.869, $df = 5$, $p = 0.037$).

All registered nurses in the survey were asked about their interest in the NP role, a key professional development for nurses. On a scale of 1 to 5, with 1 being very interested and 5 being not at all interested, a mean rating of 3.23 emerged. Existing NPs rated their interest as significantly higher (Kruskal-Wallis = 12.255, df = 4, p = 0.016) as did those aged 16 – 44 years (Kruskal-Wallis = 12.396, df = 4, p = 0.015). Similarly, GPs in the survey were asked to rate how interested they were in becoming a GP with a special interest (GPSI) and how interested they were in referring to one. The GPs were more interested in referring to a GPSI, which received a mean rating of 2.27 (with 1 being very interested and 5 being not at all interested). The level of interest in becoming a GPSI was rated at 3.14. There was no significant association between the level of interest in becoming a GPSI and being a GP trainer (U = 225.500, Z = -0.498, p = 0.618), a member or fellow of the Royal College (U = 204.500, Z = -1.117, p = 0.264), years since qualification (Kruskal-Wallis = 3.370, df = 3, p = 0.338) or age (Kruskal-Wallis = 3.327, df = 3, p = 0.344) or gender (U = 148, Z = -0.752, p = 0.452).

The GPs interviewed were asked to what extent they were interested in pursuing a range of clinical interests such as being a GPSI and there were differing views. One GP responded that she would need to add something to the service and that experience was important and she felt there would have to be a swap with the generalist GP role. The other was of the view that it was generally a good thing to have ambitions and aspirations which lead to a broader perspective and understanding:

“It would depend if I thought I would add something to the service. The only one I put down on my form was rheumatology that was only because I’ve done the benefits work and you are equipped with that from years of experience ... It

would be a swap though, I would have to choose to do that rather than be in practice.”

(Interview 1 – GP)

“I think it is quite important to have some ambitions or aspirations, be they clinical or non-clinical ... I think understanding the bigger picture does help in the practice, because you can see the direction of travel better and understand why and how certain things come about ... You can go all day without seeing anyone else, even in a big building. If you don't make some effort to get out, I think you get confused about what's going on, which we see all the time, practice's don't know where we are trying to go to, and also if you spend all your time busy beavering away, you don't have the opportunity to sit back and think about what it is you are actually doing and why. So, some sort of other interest is quite healthy.”

(Interview 5 – GP)

In the management interviews, positive outcomes from skill mix included new roles and responsibilities for staff:

“I think it is watching people that hitherto were coming to work to do a very confident job but not receiving accreditation for it and not necessarily being challenged, and watching them take on new roles and responsibilities, and new opportunities that extended themselves and the organisation ... I mean they're blossoming ...”

(Interview 2, PM)

“I would think from a practice nursing perspective it would be greater job satisfaction, where they are allowed to learn new skills themselves thereby taking off some of the things where historically GPs did ...”

(Interview 6, PCT Manager)

4.5.5 Needs-led services

Professionals in the survey were asked to rank the importance of the team being structured to best meet patient needs as a skill mix outcome. From a list of six possible advantages, with 1 being the most important and 6 being the least, it received an average rank of 2.19. However, only 60 (47%) felt it had occurred and

occurrence did not significantly influence ranking ($U = 1501$, $Z = -1.926$, $p = 0.054$) and nor did job type (Kruskal-Wallis = 7.831, $df = 5$, $p = 0.166$).

In terms of understanding and influences on skill mix, the management interviews also identified patient need as important:

“Patient need really, I think that is really the fundamental reason you look at the service and decide OK, what is the best way to decide what is needed for our patients.”

(Interview 1, PM)

“I guess it’s the shift in people’s roles and responsibilities to meet patient need ... a decisions been made to do some skill mix around individual’s roles.”

(Interview 5, S HA manager)

4.5.6 Medical/nursing models of care

Changes to medical and nursing roles through skill mix are potential concerns for professionals and the survey tested levels of concern over loss of nursing skills and the GP generalist role. Just under half, 57 (45%) were concerned about the loss of nursing skills; 36 (28%) were neutral and 31 (25%) not concerned. HCAs, DNs and PNs were significantly more concerned (Kruskal-Wallis = 15.361, $df = 5$, $p = 0.009$). Around a third, 43 (34%) were concerned about the loss of the GP generalist role; 41 (32%) were neutral and 39 (31%) not concerned. There were no significant differences in ranking by job (Kruskal-Wallis = 7.099, $df = 5$, $p = 0.213$).

Neither of the GPs interviewed considered that the generalist role was disappearing. Both felt there was still a need for someone to see patients with undifferentiated illnesses and treat or refer on as appropriate. However, the loss of the ‘traditional’ GP role was picked up in the management interviews:

“I’m not sure that there is a great threat to the GP generalist role as a result of skill mix. We still see everybody about everything, we still bring through a lot of the work, it’s not all going to disappear, the things we get rid of are things that you’ve identified what the problem is, you know what the options are, you know who is the best person to deliver the other options and you pass them on. People are still going to turn up with undiagnosed symptoms across the board which you still need to know a bit about everything so we weed out the right person to refer it to which is what we’ve always done; it used to be referral to a consultant and now there are a lot more options.”

(Interview 5 – GP)

“I’m also mindful that it’s watering down the role of the general practitioner, specialising, turning the general practitioner into a more specialist role, rather than a generic generalist role and that is always the danger with skill mix but we’ve got to be mindful that we can’t expect them to do everything.”

(Interview 6, PCT Manager)

4.5.7 Efficiency

Issues around skill mix and efficiency featured strongly throughout the management interviews. Participants were specifically asked to what extent they considered skill mix was driven by a need to cut costs. Most did not feel this was the case; rather it was more ‘efficient’. However, some did feel it was the case and the (poor) financial position of the South West Peninsula was noted:

“ ... I think it has not been a need to cut costs, I think it has been a need to cut time, to make more efficient use of time management, because patients’ demands are higher now ...”

(Interview 1, PM)

“There’s no doubt about it, and you’d expect somebody in a health authority to say, you would want as much, you would want to optimize really the efficiency of care ...”

(Interview 4, SHA manager)

“I don’t think that was the primary driver, I think it’s becoming one of the primary drivers though, certainly in the south west peninsula which is a bit of a shame, I think people are now looking it at as one way to cut costs, but I think that’s a bit of a sad day really.”

(Interview 5, SHA manager)

“I don’t think it has, it might be driven by a need to maximise profits which might be slightly different ...”

(Interview 8, NPDT manager)

4.6 Service context

Services issues relating to skill mix identified by the respondents and from the literature included communications, local services, continuity, consultation length, integration between health and social care, and patient information and advice. These topics thus form the sub-headings for this section.

4.6.1 Communications

Communications in the study were both between professionals and between professional and patient. Patients in the interviews were asked what they thought about communication between professionals. No real concerns emerged although poor communication between the hospital and practice was noted:

“In the practice that I am with I have been very fortunate that I have never had a lack of communication. They have been extremely good to me and I have never had many problems there. In the hospital I have but I haven’t had in my practice.”

(Interview 6 – Patient)

Professionals were also asked to rate communications in the practice team. In survey, they were asked to rate how they perceived team communications. It received an average rating of 2.38 (with 1 being excellent and 5 being poor). Professionals were also asked how frequently their team met annually. The minimum number of meetings reported was two and the maximum 52, with an average of 17.58 (SD = 14.34). Despite these quite positive survey results, in the

interviews a GP from a larger practice expressed concerns about team communications:

“I think one of the problems when you get more and more people involved is that communication becomes very difficult especially when you’ve got health visitors and midwives who aren’t part of your immediate close team ...”

(Interview 5 – GP)

Patients in the focus groups and interviews were also asked about communications between professionals and patients. They seemed generally satisfied with the ease with which they could talk to doctors, although it was dependent on the individual. The frequency with which they saw a particular professional was noted as influencing relationships. As most patients saw nurses infrequently this did influence views. Those who had seen a nurse were generally satisfied because of time spent, gender and seeing the nurse for specific, non-complex problems:

“I would think that some of the GPs are more forthcoming than the nurses actually, to talk to. But of course you know them more.”

(Focus group 2 – skill mix practice)

“The normal time to see a GP appears to be about 10 minutes and they’ve got a string of perhaps up to 20 patients ... in one way I’ve found the nurse easier in the sense that you get quarter of an hour. You can have longer. And I did. And it’s usually on a more specific issue with the nurse.”

(Interview 7 – Patient)

4.6.2 Local services

More local services through skill mix could involve GPs taking on work from the hospital or a range of professionals and services based at the surgery. Patients in the survey were asked whether they felt that GPs could take on more work from hospital doctors. Just under half agreed (100 or 41%); however, 79 (33%) were undecided and 63 (26%) disagreed. There were no significant differences in views

by practice type (U = 5891, Z = -1.461, p = 0.144), age (Kruskal-Wallis = 3.126, df = 6, p = 0.793) or length of registration (Kruskal-Wallis = 1.741, df = 3, p = 0.628). Patients were also asked which services they considered could be transferred from hospitals to GP specialists; the results are shown in table 4.9.

Table 4-9: Patient survey: transfer of services from hospital doctors to GPs

Service	Agreed could be transferred	Used service	Link between agreement to transfer and use of service?	
			χ^2	P
Diabetic eye checks	111 (50%)	15 (7%)	4.879	< 0.05
Dermatology	105 (47%)	33 (15%)	2.118	> 0.05
Rheumatology	91 (41%)	17 (8%)	5.493	< 0.05
Echocardiogram	61 (28%)	31 (14%)	31.475	< .001
Sigmoidoscopy	42 (19%)	36 (16%)	0.42	> 0.05
Endoscopy	37 (17%)	36 (16%)	1.146	> 0.05
Other ¹	7 (3%)	5 (2%)	98.92	< .001

1 – Others included urology tests, pain management and osteoporosis

The main tasks which patients thought could be undertaken by GPs were diabetic eye checks, dermatology and rheumatology. However, the most frequently used services were endoscopy, sigmoidoscopy, dermatology and echocardiogram. There was a significant association between patient experience of using eye checks, rheumatology, echocardiogram and “others” and whether they could be transferred. There were no significant differences by practice type on whether the following could be transferred: endoscopy ($\chi^2 = 0.723$, df = 1, p = 0.395), sigmoidoscopy ($\chi^2 = 0.591$, df = 1, p = 0.442), eye checks ($\chi^2 = 0.74$, df = 1, p = 0.786), rheumatology ($\chi^2 = 0.465$, df = 1, p = 0.495), dermatology ($\chi^2 = 0.158$, df = 1, p = 0.691) and “others” ($\chi^2 = 0.649$, df = 1, p = 0.421). However, there was a significant difference by practice

type on whether echocardiograms could be transferred, with more in the skill mix group agreeing that they could (36.2% versus 21.1%, $\chi^2 = 6.182$, $df = 1$, $p = 0.013$). However, there was no significant difference in use ($\chi^2 = 2.178$, $df = 1$, $p = 0.140$).

In the interviews and focus groups, patients who felt their GP could carry out surgical procedures linked this to confidence in the ability/experience/training of the doctor. There was concern regarding skills and experience however and whether facilities were sufficient. The impact on the GPs 'day-job' was mentioned. There was also a view that whether or not surgical procedures should be carried out depended on how complex or serious they were perceived by the patient. It was thought that GPs doing surgical procedures could reduce waiting times and be more convenient and patients may feel more comfortable if the GP carried out the procedure:

"I think because we know our surgery and doctor so well, I wouldn't be at all perturbed about it (doctor doing endoscopies)."

(Focus group 1 – traditional practice)

"And, if they think they are fully equipped, they're happy doing it, and obviously you've got to be qualified. And maybe, it might be more efficient. I think things have changed a bit and its time-availability and if a doctor's got patients waiting a week to see him, should he be doing that?"

(Focus group 2 – skill mix practice)

"I think I'd be a bit nervous about endoscopy because I've had one of them. I don't really want to have it done by a GP, I don't think. Why do you think that is? Well, I asked to have a general and I don't know whether GPs would be able to do that ..."

(Interview 3 - Patient)

"If it means being sorted out quicker then so much the better as worry plays a very negative part and the longer it drags on, the more you worry the worse you feel."

(Interview 10 - Patient)

Professionals were asked in the survey whether they supported existing staff taking on new responsibilities and 93 (73%) did. There were no significant differences in views by job type (Kruskal-Wallis = 6.158, $df = 5$, $p = 0.291$) nor for years since

qualification (Kruskal-Wallis = 3.420, df = 3, p = 0.331). They were also asked which secondary care activities GPs could take on. Table 4-10 shows that over half considered that dermatology, rheumatology, vasectomies and echocardiograms could be carried out by GPs.

Table 4-10: Professional survey: agreement to GPs carrying out secondary care activities

<i>Activity</i>	<i>Level of agreement</i>
Dermatology	95 (74%)
Rheumatology	75 (59%)
Vasectomy	71 (56%)
Echocardiogram	70 (55%)
Sigmoidoscopy	61 (48%)
Ophthalmology	58 (45%)
Endoscopy	55 (43%)
Other ¹	9 (7%)

1 - "Other" areas identified included colposcopy, STD/GUM, "anything", psychiatry, drugs and alcohol, ENT, and cardiology.

Patients in the interviews and focus groups were also asked whether a greater range of services available at the practice. Some considered that it could reduce waiting times, save resources and be more convenient. For some services there could be reduced stigma. Mention was also made of it being advantageous for patients with mobility and transport issues. However, whether practices should accommodate extra services was linked to geography. As Torbay is densely populated, travelling distances and times are shorter so it was felt to be less important. Concern was expressed over car parking at the surgery and not all agreed that a wide range of services needed to be based there. Of those that did, pharmacists and health/social advice services were thought to be useful although other services were also mentioned:

“I do think that a lot of people would feel more comfortable and would come forward if they could see someone in their own surgery. I think it is a familiar area to them and they don’t feel as though they have to go to that place where they deal with so and so ... if they could go to a Doctors surgery where nobody knows what each others problem, why can’t it all be under one roof?”
 (Interview 5 – Patient)

“If it is somebody elderly and is restricted in transport or movement it makes sense to have more facilities in one place than having to trundle around to different surgeries ...”
 (Interview 4 – Patient)

In the survey, patients were asked to rank a range of services that could be based at the practice, with 1 being the most wanted and 7 being the least. As table 4-11 shows, physiotherapists, chiropodists and dieticians ranked highest. Physiotherapists and chiropodists were most frequently used. There was a significant positive association between rank and the use of all services except physiotherapy.

Table 4-11: Patient survey: ranking and use of services which could be based at the surgery

<i>Service</i>	<i>Mean rank</i>	<i>Used service</i>	<i>Link between use of service and rank?</i>
Physiotherapy	1.70	23%	P = >0.05
Chiropody	2.78	13%	P = <0.05
Dietetics	3.07	3%	P = <0.05
Counselling	3.55	11%	P = <.001
Social work	4.52	2%	P = <0.05
Citizens Advice Bureau	4.74	10%	P = <.001
Other ¹	6.71	3%	P = <.001

1 - “Others” include complementary therapies, psychiatric nurse, occupational therapy, dermatology, and dental.

Professionals in the survey were also asked to indicate which professionals they thought should be based at the surgery. The results are shown in table 4-12. High

levels of support emerged for most services, with over half thinking it would be useful for all those listed to be based at the surgery, with the exception of complementary therapists.

Table 4-12: Professional survey: services which could be based at the surgery

<i>Service</i>	<i>Level of agreement</i>
Physiotherapy	96 (75%)
Podiatry	94 (73%)
Dietetics	88 (69%)
Social work	80 (63%)
Citizens Advice Bureau	80 (63%)
Community Psychiatric Nursing	79 (62%)
Pharmacy	71 (56%)
Occupational therapy	67 (52%)
Complementary therapies	62 (48%)

4.6.3 Continuity of care

Patients in the focus groups and interviews were asked how important they thought it was to see the same health professional at the practice each time and whether continuity may be more important for some. All agreed it was important but only those from the traditional practice felt they received it. Seeing the same person was thought to be important as they knew your history; the difficulty of not being able to see the same nurse each time was noted. The elderly, teenagers, those with chronic conditions (asthma and diabetes) and serious problems (heart disease, strokes, cancer and mental health problems) were identified as priorities to receive continuity:

“It would be nice to think you can always see the same doctor, but gone are the days when it was just one doctor.”

(Focus group 2 – skill mix practice)

“... it saves time too, as if you are seeing a different one you have to tell him the history and perhaps taking up more of his time.”

(Focus group 1 – traditional practice)

“But in my practice, the practice nurse, there’s a different one every time you go there.”

(Focus group 3 – mixed group)

“If you have a long-term illness then yes (it is important) so you can see the same people that you have been seeing all the time. But if you are one of these that are not ill very often then I don’t think it really matters.”

(Interview 9 – Patient)

Patients were also asked in the survey to rank the importance of “seeing the same person at the practice” out of a series of five statements. Continuity received an average rank of 2.6 (with 1 being most important and 5 the least). Those aged 55 and over ranked it significantly higher (Kruskal-Wallis = 26.670, df = 6, p = <.001). There were no significant differences in ranking by practice type (U = 6732, Z = -0.028, p = 0.978) or gender (U = 6752.500, Z = -0.134, p = 0.894).

Concerns over the possible loss of continuity were explored with professionals in the survey; 51 (40%) expressed some concern about this. There were no significant differences in views by job type (Kruskal-Wallis = 9.490, df = 5, p = 0.091). In the survey GPs were also asked whether they favoured pursuing a range of interests over providing continuous care. The majority (95 or 74%) thought that providing personal, continuous care was most important. This was tested further in the interviews and GPs stated that felt they needed to retain an overview and that this could be more difficult through delegation. Discontinuity was thought to be inefficient and communications could be more difficult. However, neither GP was particularly concerned that continuity was being lost:

“You just cannot keep an eye on everything that is happening with others, its management of the disease as opposed to management of the patient. We’re the only people who can put it all together. The more you delegate to someone else, the more difficult it is to keep a handle on the whole patient.”

(Interview 1 – GP)

“Some people, patients, value continuity higher than others. Some people don’t value it, they want a quick fix ... Some doctors value continuity more than others; I don’t personally, need people to come back to me and I don’t mind if they don’t and I don’t mind if they see other people but having discontinuity, or lack of, does bring inefficiencies ...”

(Interview 5 – GP)

Continuity of care was raised by management as a positive aspect of primary care. It was linked to the opportunity to help reduce emergency admissions to hospital although concerns were raised about risks to continuity through increasing specialisation:

“... if you take depression and the effective management of common mental disorders, they have huge service impacts ... depression in the elderly and loss of independence, it also has massive implications for health service costs ... good chronic disease management is largely, not entirely, but it is primary care in our system which holds the continuity line, this is where the patient has the over time, continuity relationship.”

(Interview 4, SHA Manager)

“I think there are some who would regret the passing of the generalist ... so GPs with a special interest ... you lose the generalist initially who can see the whole picture, and does that put general practice itself at risk with continuity of care.”

(Interview 8, NPDT manager)

4.6.4 Consultation length

Patients in the focus groups and interviews were asked whether they felt their appointments should be longer and whether longer appointments may be more important for some. All those in the focus groups thought that the appointment length

was about right. There was concern that if it was longer there would be fewer appointments. In the interviews, those with multiple problems, children, older people, those with serious problems (cancers and mental health problems), and those who are poor at communicating were identified as priorities for longer appointments. The opportunity to use double appointments was mentioned.

"It (appointment length) does really remain in the hands of the GP. They're not going to chuck you out after 10 minutes if something is wrong."

(Focus group 1 – traditional practice)

"I don't know if the appointment situation could cope with that (15 minute appointments)."

(Focus group 2 – skill mix practice)

Professionals were asked in the survey to rate the importance of spending more time with patients. From a list of 6 possible advantages from skill mix, with 1 being the most important and 6 being the least, spending more time with patients ranked relatively low, with a mean rank of 3.99. Only 12 (9%) thought that it had occurred as result of skill mix. There were no significant differences in ranking by job type (Kruskal-Wallis = 7.203, df = 5, p = 0.206).

Despite this finding, more time was still identified as a positive outcome from skill mix in the interviews by professionals and management:

"I think better patient care; people get more time and better care."

(Interview 2 – PN)

"A more comprehensive service than I am able to give, to help me with my workload and allow me to give more time ..."

(Interview 3 – HV)

"... the GP's got limited time whereas a practice nurse has longer, we have practice nurse run chronic disease management and they are 45 minutes long, the GP could no way spend that long with the patient."

(Interview 1, PM)

4.6.5 Integration between health and social care

Patients in the interviews and focus groups were asked whether they felt practices should accommodate social care services. They thought greater communication might be useful but the service need not necessarily be based at the practice.

Another patient was quite damning of the move towards social services in practices:

“At B for three years they had advice at the surgery, trying to encourage people to come, totally separate from the doctors and in three years the average response was one person per week ... I don’t rate social services at all I think they are a waste of space.”

(Focus group 3 – mixed group)

“I think certainly Social Services could work more with the GP ... They don’t really need to be in the same surgery just as long as they communicate.”

(Interview 3 – Patient)

In the survey, patients were asked to rank the inclusion of social care services at the practice along with six other services. Social work services ranked comparatively low with an average of 4.52, with 1 being the most wanted service and 7 the least. There was a significant association between ranking and the use of a social worker ($p = <0.010$). Professionals were also asked which services could be based at the surgery. In the survey, 81 (63%) agreed that social services should be based at the surgery with most support from NPs and DNs.

Management identified increasing health and social care integration as a strong influence for the future of skill mix in primary care:

“... we clearly want to maybe work well and integrate with social services I mean they’re seen as the outsiders, and they’ve got their own budgets and I know that is going to change now, so that if you are talking about skill mix it is not necessarily in primary care that we need to be developing skill mix, it’s with all the other agencies that touch on patients care.”

(Interview 1, PM)

4.6.6 Patient information and advice

Patients in the focus groups and interviews were asked whether they felt that only GPs should give advice on illnesses. There was some support for this but also confusion over what 'advice' was. Where alternative advice-givers were discussed, nurses were mentioned. Other professionals such as opticians, alternative practitioners, pharmacists and counsellors were mentioned less frequently:

"I mean, nurses – some might be midwives for instance – know more than the GP about that sort of thing (giving advice)."

(Interview 4 – Patient)

"I cannot see why anyone else who is qualified. I have nothing against going to a pharmacist at the chemist as long as I can see the pharmacist and not the lady behind the counter."

(Focus group 1 – traditional practice)

"If someone comes in new to the nurse, I would need to feel that she would refer I think that basically no. I feel that the initial assessment should be done by the GP."

(Focus group 3 – mixed group)

GPs, in the survey, were asked to what extent they would be prepared to delegate the function of advice-giving to others. Over half (29 or 63%) had already delegated it and a further 15% (7) would like to. Only 10 (22%) would not delegate it. In terms of who to delegate to PNs and NPs were most frequently mentioned, followed by HVs and HCAs.

4.7 Internal/external drivers

Internal/external drivers identified by the respondents and from the literature included access, workload, premises, secondary care, costs, human resources, contracts and nurse prescribing. These topics form the sub-headings for this section.

4.7.1 Access

Patients in the focus groups and interviews were asked whether they thought it should be easier to get an appointment, whether access was more important for some, whether appointment times should be more flexible and whether they would see anyone to be seen sooner. In the groups, those from the traditional practice did not find access a problem. Those in the other groups were of the view that access should be easier and some mentioned problems with receptionists. There was general agreement that they would see anyone to be seen sooner. Pharmacists were mentioned positively in terms of ease of access and convenience. In the interviews, there was no strong view on who should get quick appointments, with those who were worried mentioned most. Children, those with multiple problems, life-threatening problems (breathing difficulties and heart problems) and chronic diseases (diabetes and asthma) were also mentioned:

“I was lucky last time and got in to see a doctor, but that was a one-off, it is hard work sometimes ... Sometimes you have to get through the receptionists as well ...”

(Focus group 2 – skill-mix practice)

“Yes (I’d see), anyone you haven’t go to wait too long to see. Basically you’re worried and need to be reassured.”

(Interview 3 - Patient)

The patient survey also showed concerns over access. Over half (166 or 69%) agreed they would see anyone to be seen sooner. There were no differences in views by age (Kruskal-Wallis = 7.368, df = 6, p = 0.288), practice type ($\chi^2 = 7.807$, df = 4, p = 0.099) or gender (U = 6407, Z = -0.414, p = 0.679). However, workers ranked it significantly higher (U = 5566, Z = -2.191, p = 0.028). 'Being able to get an appointment quickly' was ranked as most important from a series of five statements on services, with an average rank of 1.7 (with 1 being the most important and 5 the least). There were no differences in rankings by age (Kruskal-Wallis = 9.091, df = 6, p = 0.169), practice type (U = 6210.55, Z = -1.046, p = 0.295), working status (U = 6106, Z = -1.446, p = 0.148) or gender (U = 6393.500, Z = -0.798, p = 0.425).

Patients were also asked to rank the importance of appointments at the weekend, early in the morning or later at night in the survey. This received an average rank of 3.2 (with 1 being the most important and 5 the least). There were no differences in ranking by practice type (U = 5789.500, Z = -1.293, p = 0.196) or age (Kruskal-Wallis = 9.091, df = 6, p = 0.169). However, workers ranked it significantly higher (U = 4418.500, Z = -4.276, p = <.001).

Professionals in the survey were asked to what extent they thought that the national target for patients to be seen by a GP within 48 hours and a nurse within 24 hours had influenced skill mix. Out of a series of 7 possible influences, the target had an average rank of 3.86 (with 1 being most important and 7 being the least). There was no significant difference in ranking by job type (Kruskal-Wallis = 7.709, df = 5, p = 0.173). Professionals were also asked how important an outcome from skill mix was patients being able to see the GP quicker. This received an average rank of 3.84

(with 1 being most important and 6 being the least). Professionals were also asked whether improved access had actually occurred and 58 (45%) felt it had. There was a significant association between the occurrence of improved access and ranking ($U = 1039$, $Z = -3.383$, $p = <.001$). There were no significant differences in ranking by job type (Kruskal-Wallis = 10.025, $df = 5$, $p = 0.075$).

Management also picked up the issue of access targets as influencing skill mix and considered that improved access could be a positive outcome of skill mix:

“Patients like a service to be accessible and that fits in with their lives.”
(Interview 1, PM)

“... the whole waiting list bit, the access bit, all the primary targets that certainly chief executives could get sacked for, that’s the real driver isn’t it really?”
(Interview 5, SHA manager)

4.7.2 Workload

Patients in the focus groups and interviews identified the workload of GPs as an issue and thought skill mix was necessary to reduce their workload. However, it was also noted that if GPs took on work from hospitals their workload may not reduce:

“Yes, I think it is quite feasible if GPs are so overloaded then it is good to delegate some of their jobs, this makes sense. But if you are saying is it envisaged that GPs take on things that might be done like small surgical jobs, which might be done in hospital, then is that not going to make more work for them?”
(Focus group 2 – skill-mix practice)

Professionals in the survey were asked to what extent increasing GP workload had influenced skill mix. Out of a series of 7 possible influences, GP workload was ranked on average at 2.06 (with 1 being the most influential and 7 the least). GPs

ranked this significantly higher (Kruskal-Wallis = 32.798, df = 5, p = <.001). In the interviews, the GPs noted workload as the main driver for skill mix. Management also picked up the issue:

“I think our approach towards affecting our own workload is quite a recent move ... I think our workload issue came about the same time as improved access.”

(Interview 5 – GP)

“There are a number of factors with workload, demand is rising, the nature of the job changes, that is to say more things are being done in primary care than before, earlier discharge, demand, changing practice ... there are more things you can do with people than you could do before and population is getting older ... if you take any health professional ... their workload will have developed to a point where many of them have critically said ‘well, I’m busy, do I really need to be doing this particular part of my job or can someone else do it?’ To which the answer is almost always yes.”

(Interview 3, PCT Manager)

4.7.3 Premises

Patients mentioned concerns about the limitations of GP premises to accommodate skill mix:

“It makes more sense, but I don’t know how far that can go obviously it depends on the premises and the facilities that they are able to have. This surgery I think they are very limited for space ...”

(Focus group 1 – ‘traditional’ practice)

“Mind you, where would they put them all, they’ve expanded twice and you can seldom get into the car park? It’s almost as bad as the hospital.”

(Interview 4, patient)

Professionals in the survey also identified lack of space at the surgery as a barrier to skill mix. On a scale of 1 to 5, with 1 being a big problem and 5 not a problem, lack of space was rated on average at 2.44. There were no significant differences in rating by job type (Kruskal-Wallis = 7.995, df = 5, p = 0.157).

Management also highlighted issues around buildings:

“I suppose practical barriers if we are talking about general practice is do they have the rooms within their building to accommodate the sort of people they’d like to come into their building ...”

(Interview 6, PCT manager)

4.7.4 Secondary care workload

Professionals ranked the shift of work from secondary to primary care relatively highly as a driver for skill mix. Out of a series of 7 possible influences, it received an average rank of 2.38 (with 1 being most influential and 7 being the least). There were no significant differences in ranking by job (Kruskal-Wallis = 4.403, df = 5, p = 0.493).

Management also highlighted issues around workload in secondary care as an influence on skill mix, linked to earlier discharge from hospital, increasing emergency admissions and waiting lists:

“... more things are being done in primary care than before, earlier discharge, demand, changing practice ...I think we could set an objective to prevent unplanned admissions to hospital, as a priority, you do that by ensuring that the care pathway is delivered effectively. You do that by ensuring that those who deliver it have the right training and qualifications, ergo the skill mix needs to be right ...”

(Interview 3, PCT manager)

“... one of the key questions in the health service is to look at the rate by which emergency admissions are increasing, so is there anything that can be done in primary care about that ... does that require new ways of thinking and new types of skill ... it involves changes in working and all sorts of things but particularly in skill”

(Interview 4, SHA manager)

“One of the features of the DH I think is that historically it has had a secondary care focus, you know waiting lists. But I think there is a growing recognition at the top of the organisation that now that when they hit the waiting targets ... you need to start thinking about doing things differently ... chronic diseases, millions of people have got these conditions, people are making use of

hospitals and an awful lot of them have chronic conditions and maybe they don't need to go in."

(Interview 7, DH manager)

4.7.5 Financial resources

Professionals rated the importance of costs in skill mix relatively low. In the survey out of a series of 7 possible influences on skill mix, a need to cut costs was ranked on average at 4.28 (with 1 being the most influential and 7 the least). However, HVs and DNs ranked it significantly higher (Kruskal-Wallis = 11.561, df = 5, p = 0.041). The HV and DN in the interviews thought that achieving the correct skill mix could be more expensive though:

"... I don't think it will (reduce costs). It will cost more because funds for Community Nursery Nurses have to be in addition to Health Visitor time."

(Interview 3 – HV)

"I don't agree because if that were the case, it would be cheaper not to have a skill mix ... I think it was Griffiths who decided that skill mix should be in place, he sort of looked at it from the Sainsbury's perspective, and actually he brought nursing out of the dark ages because nursing was low paid, it was not very well regarded, so it did give it a higher profile, and by having a grading system of wages, using skill mix as a reason for having that grading ..."

(Interview 7 – DN)

Management were asked specifically whether they felt that skill mix had been driven by a need to cut costs. Most thought it had not rather it was driven by a desire to be more 'efficient', making better use of skills. Factors such as workload and recruitment difficulties were identified as more important. However, some did feel it had been driven by a need to cut costs:

"... I think it has not been a need to cut costs, I think it has been a need to cut time, to make more efficient use of time ..."

(Interview 1, PM)

“I think it’s been driven by a feeling that we can be more efficient, which is different I think I think it is more driven by workload. ‘I’ve got too much to do, what am I doing that someone else could do?’

(Interview 3, PCT manager)

“ ... I think it’s there on the top line. It always is, money is mostly the driver for anything. I don’t say that is wrong, medical staff are very expensive and if it can be carried out by nursing or other staff in just as good a manner then that’s where it ought to be”

(Interview 6, PCT manager)

4.7.6 Human resources

Human resource issues, including recruitment and retention, were picked up in the study. Professionals in the survey were asked to rank a shortage of GPs as a driver for skill mix. Out of a series of 7 statements, with 1 being most important and 7 the least, it received an average rank of 4.68. There were no significant differences in ranking by job (Kruskal-Wallis = 3.739, df = 5, p = 0.588). Professionals were also asked to what extent difficulties recruiting staff generally was a barrier to skill mix. On a scale of 1 to 5, with 1 being a big problem and 5 not at problem, this was rated on average as 2.58. There were no significant differences in rating by job (Kruskal-Wallis = 7.132, df = 5, p = 0.211).

Management also highlighted recruitment and retention issues around skill mix:

“There are GPs out there who are looking for work but not all want to work just a few sessions a week ... Recruitment of practice nurses, I just could not find one, I looked for one for a long time ... Even recruiting reception staff, it’s difficult ...”

(Interview 1, PM)

“Benefits to staff are obviously more interesting and rewarding job potentially. Particularly around nurses, working around GPs is one thing but there is NHS Direct and things as well and walk-in centres. They’re characterised by good services and nurses actually like it. Recruitment and retention rates are quite good compared with other parts of the NHS.”

(Interview 7, DH manager)

4.7.7 Contractual framework

Management noted the limitations of the existing GMS contract on skill mix. There were positive views on the new contract, implemented on 1st April 2004, and previous contractual changes such as GP fund-holding and personal medical services (PMS) pilots:

“I think that the culture of fund-holding and PMS, drives you to a more commercially orientated practice ... when I first came into practice, the paperwork chase of GMS was I felt, just totally inappropriate ... so my, the greatest outside influence for me, was probably fund-holding and then PMS.”
(Interview 2, PM)

“Well I think, and this interview is taking place when we still have the old GMS contract, and I think that in the old pattern of how primary care has been funded. I think it will take a while before we see the benefits but I think one of the benefits will be changing the basis to have a contract with the practice rather than the practitioner. I think that will be, over time, a change in, I think it will force practices to, and you probably know more about this than me, but GPs are now trying to maximise their income using other staff, they are busy thinking to themselves ‘who needs to do that, who needs to do that’ ‘If I take on another nurse for £20k I can earn another £40k’.”
(Interview 4, S HA manager)

4.7.8 Nurse prescribing

The move to allow nurses to prescribe was picked up throughout the study. Patients in the survey were asked whether they thought nurses could take on repeat prescribing. Nearly three-quarters (174 or 72%) felt they could. There was a positive association between patients who needed repeat prescriptions and had used the service and whether they felt it could be transferred ($p = <0.01$). However patients in the focus groups and interviews were of the view that nurse prescribing might need

to be limited. There was also some confusion about whether they already prescribed:

“I think it is all tied up really as to whether they have the qualifications to be able to do it. I would not like to think that the practice Nurses that are practising at the moment ... I don't think they have all got sufficient skills to write out prescriptions.”

(Focus group 2 – skill-mix practice)

“I think we agree that with some drugs, that aren't too toxic ... most people would be happy with a trained nurse ... Don't they (prescribe) at the moment? ... Not even things like Calpol? What about repeat prescriptions?”

(Focus group 3 – mixed group)

A number of professionals in the survey identified repeat prescribing as a core part of their role (66 or 52%), with nearly all GPs and NPs identifying it as core and over half the HVs.

Management highlighted the importance of greater nurse prescribing as an influence on skill mix although it was noted that at the time of the study, it was not as strong a driver as previously:

“It was quite strong when nurse practitioners were being mooted, nurse prescribing and all that, it was very high on the agenda what two, three years ago?”

(Interview 6, PCT manager)

4.8 Determinants (issues)

Issues relating to skill mix identified by the respondents and from the literature included competencies, education and training, supervision, time, employer, independent contractor status, accountability, access to information, professional issues, quality of care and attitudes. These topics form the sub-headings for this section.

4.8.1 Staff competencies

Professionals were asked to what extent they were concerned about the competencies of staff to take on new roles through skill mix. Over half (70 or 55%) were concerned to some degree. There were no significant differences in views by job type (Kruskal-Wallis = 1.536, df = 5, p = 0.909). In both the professional and management interviews, competencies were raised as a potential issue:

“I’m worried about the potential for more, I don’t want to ask the nurses to do more that they don’t feel competent to do.”

(Interview 1 – GP)

“Well initially it did concern me a bit. But having seen how it can work and knowing that the HCA will come and ask if she’s not sure about something reassures me. She won’t do anything she doesn’t feel competent to do.”

(Interview 2 – PN)

“I think through skill mix a certain amount of supervision is still needed ... you have to ensure patient safety ... I guess I would have concerns, depending on the methodology that was used ... all sorts of issues might be attached to that, like competency, capability, lack of supervision, lack of development and support ...”

(Interview 5, SHA manager)

4.8.2 Education and training

Patients in the interviews and focus groups identified that adequate and appropriate training and experience was necessary for those taking on new work through skill mix:

“As long they’re qualified. It all comes down to the training involved.”

(Interview 1 - patient)

“I would have no argument with that (pharmacist diagnosis and treatment). I think they’ve probably trained harder than some of the GPs.”

(Focus group 3 – mixed group)

In the survey, professionals were asked to identify the level of support and training they had received to take on new work. Eight-four (67%) agreed that they had been supported and encouraged to take on new responsibilities; 26 (20%) were neutral and 5 (4%) disagreed. Significantly more NPs, PNs and HCAs agreed they had been adequately supported (Kruskal-Wallis = 16.269, df = 5, p = 0.006). Fewer (74 or 58%) agreed that they had been given the necessary training to take on new responsibilities; 33 (26%) were neutral and 18 (15%) disagreed. Significantly more NPs agreed they received the necessary training for new responsibilities (Kruskal-Wallis = 26.469, df = 5, p = <.001).

Management noted the importance of appropriate, comprehensive training. Particular mention was made of nurse training including the difficulties with the availability of courses and resources and as a result primary care training often ended up being the 'grow your own' variety. A key role was identified for management in supporting training:

"I'm concerned that the money isn't following the strategy, that again that if we are going to ensure that staff are extended in their skills, then that funding should be independent of the practice and significant amounts of money are going to be provided for training and backfill ..."

(Interview 2, PM)

"... how do we know we've got the right training in place what will give us quality assurance ... we don't have enough training facilities, we don't invest enough."

(Interview 3, PCT manager)

"... when there doesn't seem to be an easy route to get those skills, people tend to invent them themselves. I remember in Cornwall and places developing, the 'grow your own' training programme ..."

(Interview 8, NPDT manager)

4.8.3 Supervision

Patients and management picked up on the importance of supervision for nurses and assistants in skill mix:

“Surely they’d (HCA) be under the nurse, they wouldn’t be on their own?”
(Focus group 3 – mixed group)

“So, as a PCT I think we’d definitely be the drivers of that and we’d definitely be demonstrating good practice, good practice in skill mix where it’s working and supporting those where it isn’t ... it might be through maybe clinical supervision of the staff there ...”

(Interview 6, PCT manager)

4.8.4 Time

Time was a recurring theme in the study in terms of efficient use of time and lack of time to develop skill mix. Patients noted skill mix could lead to a more efficient use of time although some professionals may be limited in what they could take on:

“There seems to be time that could be saved if people were happy to see the practice nurse ... From what I can see, they (PNs) haven’t got any time to spare. In fact I had a talk to the nurse about it because I thought she seemed a bit stressed ... I think she was definitely used to her maximum.”

(Interview 2 – Patient)

Professionals noted that using other staff could save time but that initially, it could be more time consuming. Time for implementation was explored in the professional survey and over half (65 or 51%) were concerned about skill mix being time consuming to implement and manage. There were no significant differences in views by job type (Kruskal-Wallis = 5.129, df = 5, p = 0.400).

Management also noted issues around the effective use of time and time for implementation:

“...the other hard thing is finding time to actually do it and properly, that always needs more resource, so anything that’s going to take up more resource, more time, costs more can be difficult.”

(Interview 5, S HA manager)

“Our general practitioners are very stretched at the moment, they’re doing too many things that they oughtn’t to be doing and I’m thinking here in terms of bureaucracy rather than their own clinical skills ... that would be something a practice manager ought to think about doing ... ”

(Interview 6, PCT manager)

4.8.5 Employers

Professionals were asked to what extent they thought different employers for team members was a barrier to skill mix. On a scale of 1 to 5, with 1 being a big problem and 5 not a problem, it was given an average rating of 2.84. There were no significant differences in rating by job (Kruskal-Wallis = 3.984, df = 5, p = 0.552). The issue of different employers for team members was also raised by a GP in the interviews and by management:

“... you’ve got health visitors and midwives who aren’t part of your immediate close team and don’t come to all the meetings, they’re not always there, and we’re not always there for them, and they might be trained differently by different people or influenced by hospital practice rather than primary care practice ...”

(Interview 5 – GP)

“... you’ve got employment backgrounds going on, again there has always traditionally been this thing about district nurses for example being managed by different people, and seen very much as part of the PCT.”

(Interview 8, NPDT manager)

4.8.6 Independent contractor status

Professionals and management identified the independent contractor status of the GP, who is also the employer, as a potential barrier to skill mix:

... in primary care they (GPs) are the barrier to changes because they are the independent contractor, they want their practice run in a particular way, and unless it's what they want, it won't happen."

(Interview 4 – NP)

"... for me, the independent contractor status of GP practices is an ancient model ... It gets in the way of a lot of opportunities and at times, I see practices take benefit of it and at times I see them hide behind it. I, as a manager, find it one of the biggest barriers to actually go and make some real changes."

(Interview 2, PM)

4.8.7 Accountability

Professionals in the study were worried about retaining legal responsibility for delegated tasks. Over half (74 or 58%) expressed concerns and PNs were significantly more concerned (Kruskal-Wallis = 14.309, df = 5, p = 0.014). This was also picked up in the professional interviews:

"... people are wary because they (nurses) are the accountable person and their registration is on the line, and rightly so, but it will hinder the development of a very valuable resource (HCAs).

(Interview 4 – NP)

4.8.8 Access to information

Professionals agreed that they could access the information necessary to do their job. Nearly three-quarters (91 or 71%) who responded to the survey agreed they could, with significantly more NPs in agreement.

Management felt they had a clear role in developing skill mix in terms of accessing information about different forms of skill mix to inform future developments:

“ ... I can't make a horse drink but I can put in front of people 'what do you think about this' or 'have you tried that' or 'would you like to test this out' ...”

(Interview 2, PM)

4.8.9 Professional issues

Management identified a number of issues relating to 'professionalism' including the impact of professional bodies, professional barriers and identity:

“... I suspect it's come from the Royal Colleges ... trying to make better use of practice nurses and their skills ... there is also about making best use of the professional people who are working in that organisation and GPs not doing something which actually someone else might be able to do.”

(Interview 6, PCT manager)

“Professionals, each individual profession tends to be conservative over the way in which it controls supply and control of entry, it is calculated to preserve the interests of the professions ... So, there are obstacles there in regulatory, professional framework, the sort you would expect from a conservative institution – with a small c – protecting the interests of their members against the outrages of modernisation!.”

(Interview 4, SHA manager)

“I guess I would have a concern if ... for some people they kind of lost their professional identity ...”

(Interview 5, SHA manager)

4.8.10 Quality of care

Professionals were asked to what extent they were concerned about loss of quality of care through skill mix. In the survey, 58 (45%) were concerned; GPs and PNs were significantly less concerned about this (Kruskal-Wallis = 15.090, df = 5, p = 0.010).

Management also mentioned some concerns about loss of quality. However, if training and supervision were sufficient they would not be as concerned about delegation. Another thought that it was changes, such as skill mix, which raised awareness of existing quality issues. Others were not concerned that quality would suffer and felt it could increase:

"I think I'd refer back to my answer about training, that's where I'd be concerned, I think that skill mix is very good in the right place provided we can be reassured that the training for the people who are undertaking these tasks is as good as it should be ..."

(Interview 6, PCT manager)

"I mentioned earlier the potential for it. But a lot of existing medical practice is not evidence based, it's what's always been done ... the issue is change, risks are highlighted and it's wrong to think it's the change, they've always been there."

(Interview 7, DH manager)

"I am talking about an increase in quality ... we have certainly turned our chronic disease management around ... no one is good at everything, you can be good at one thing, but you have to use the skills of another person ..."

(Interview 1, PM)

4.8.11 Attitudes

Professionals were asked to rate GP, patient and nurse attitudes as potential barriers to skill mix. On a scale of 1 to 5, with 1 being a big problem and 5 being not a problem, GP attitudes received a mean rating of 3.33, patient attitudes a mean rating of 3.46 and nurse attitudes a mean rating of 3.48. There were no significant differences in rating by job for nurses' (Kruskal-Wallis = 4.414, df = 5, p = 0.491) or patients' attitudes (Kruskal-Wallis = 10.675, df = 5, p = 0.058). However, NPs rated GP attitudes as more problematic (Kruskal-Wallis = 4.414, df = 5, p = 0.012).

Patient attitudes were identified as a potential issue in the interviews:

“Do you think that Practice Nurses are currently being used for the maximum benefits of patients?” *“I think they are probably not. Not because of the planning of the surgery but because of the attitude of the patients.”*

(Interview 2 – patient)

“There are still people who insist on seeing the doctor to have their blood pressure done every month or two and some of that is because historically they’ve been encouraged to over the years and possibly we are holding on to those people because we happen to like them ...”

(Interview 5 – GP)

“I think another constraint is the public themselves, perhaps particularly amongst older people, who have an expectation that they go to see the doctor and it is the doctor they want to see. In technical terms, they want it to be a doctor.”

(Interview 4, SHA manager)

4.9 Determinants (staff)

Staff involved in skill mix included attached nurses, GP employed nurses, support staff, GPs and other professionals. These topics form the sub-headings for this section.

4.9.1 Attached nurses - District nurses and Health visitors

Across the study, there were some differences in views by profession which were of particular relevance to attached nurses. Both DNs and HVs ranked the need to cut costs as a driver for skill mix highly (Kruskal-Wallis = 11.561, df = 5, p = 0.041). DNs were significantly more concerned about the loss of nursing skills (Kruskal-Wallis = 15.361, df = 5, p = 0.009), control over work (Kruskal-Wallis = 23.117, df = 5, p = <.001) and being left with mundane work (Kruskal-Wallis = 18.418, df = 5, p = 0.002). HVs ranked CPD for nurses significantly higher than other professionals as a driver

for skill mix (Kruskal-Wallis = 14.764, df = 5, p = 0.011) and they were more likely to favour autonomy over teamwork, compared to other professionals.

The attached nurses interviewed identified that skill mix had been influenced by the Community Care Act and Community Nursery Nurses. They both felt less part of the primary care team, more part of primary care and peer groups:

“... there were major changes following the Community Care Act, because pre that, district nursing was very much, social care and nursing care ... but, now it has progressed from that and they've realised that where pre the act we had quite a lot of auxiliaries, they are now really defunct and although we still have them ... we can't really make use of the B grade because their skills are very limited..”

(Interview 7 – DN)

“I think there are things that I could get involved in if I were able to delegate some things to a CNN ... If we are going to get more involved in new areas of work particularly around public health it has to happen.”

(Interview 3 – HV)

“... they (the practice) involve me – we meet up every Tuesday at 12noon with a lunch which is great ... I get involved in all the social events as well and we all get on ... I'm not based at the practice though ... I go in and see the team and get messages and the like and it seems to work. Would you prefer to be based there? No, because working alone I need the support of other health visitors here. I would feel too isolated otherwise.”

(Interview 3 – HV)

In the professional survey, staff were asked to identify tasks that they thought were core to their role. Table 4.13 shows that attached nurses' job roles are quite different.

Table 4-13: Professional survey: attached nurses' core job roles

<i>Task</i>	<i>District Nurses</i>	<i>Health Visitors</i>
Care co-ordination	17 (90%)	8 (62%)
Cervical cytology	0%	0%
Chronic disease management	16 (84%)	0%
Diagnosis and treatment	6 (32%)	0%
Dressings	19 (100%)	0%
Ear syringing	17 (90%)	0%
Family planning	0%	7 (54%)
First point of contact for patients	15 (79%)	6 (46%)
Health promotion	17 (90%)	13 (100%)
Holistic care	18 (95%)	8 (62%)
Immunisations	8 (42%)	10 (77%)
Prescribing	5 (26%)	7 (54%)
Triage	1 (5%)	1 (8%)
Venepuncture	16 (84%)	0%

Over three-quarters of DNs identified that being the first point of contact, venepuncture, chronic disease management, care co-ordination, ear syringing, health promotion, holistic care and dressings were core to the job. HVs identified a 'narrower' range of roles with family planning, prescribing, care co-ordination and holistic care cited by more than half as core to the job.

Neither management nor the patients interviewed mentioned the place of HVs in skill mix in primary care. DNs were mentioned by management in terms of large numbers of DNs due to retire but also their contribution to a wider skill mix. They were also

mentioned once by a patient who thought that because of the depth of relationship they had with their patients they could take on prescribing:

“ ... the idea of the zone is excellent, it gives practices greater opportunities to work together, if they can't afford a service themselves, we can actually work towards all contributing to buy a whole time equivalent district nurse specialist say for multiple sclerosis ...”

(Interview 1, PM)

“A district nurse may see a patient five days a week, which is true and in certain cases they'll go every day. But its practice nurses. That's the person who you go to have your blood taken or whatever. No you won't see her everyday, no.”

(Focus group 3 – mixed group)

4.9.2 GP employed nurses – Practice nurses and Nurse practitioners

When thinking about skill mix, the development of PNs was most frequently mentioned in the study. Patient views on GP employed nurses focused almost exclusively on PNs, with only one mentioning a NP. A range of tasks were also identified by patients which nurses could take on including heart disease clinics, diabetes monitoring, weight loss and triage. However, some patients were happier than others for nurses to take on these tasks:

“I think we need to educate the public that nurses are experienced and qualified and good at their job so to ease the pressure on the doctor's time.”

(Interview 2 – patient)

“... certainly for diabetes, which is controlled, anything like I would have thought that could be successfully accomplished.”

(Interview 5 – patient)

“I know for the majority of patients if they hear the words heart problems you feel as though you want to be right at the top ... it makes you stand back and question whether a practice nurse could give you that care. But I don't see why with good communication, that if you've got good practice nurses, there's no reason they couldn't do this. If they found something amiss they would immediately refer you on or ring the doctor through if they thought it was that urgent.”

(Interview 6 – patient)

Table 4.14 shows whether patients in the survey used a range of services and whether they thought they could be transferred from GPs to nurses.

Table 4-14: Patient survey: views on GP to nurse delegation

Service	Agree could be delegated	Used service	Link between agreement to transfer and use of service?	
			χ^2	<i>p</i>
Repeat prescribing	169 (73%)	167 (71%)	7.771	< 0.05
Patients with coughs/colds	158 (68%)	60 (26%)	1.913	> 0.05
Asthma monitoring	136 (58%)	39 (17%)	6.636	< 0.05
Diabetes monitoring	116 (50%)	19 (8%)	0.48	> 0.05
Seeing patients the same day	100 (43%)	74 (32%)	0.406	> 0.05
INR (Warfarin) monitoring	88 (38%)	12 (5%)	2.276	> 0.05
Other ¹	9 (4%)	8 (3%)	76.707	< .001

1 – Others included ear-syringing

Repeat prescriptions, coughs/colds and monitoring asthma were mentioned by over half the patients as possibilities for delegation to nurses. There was a significant association between use of repeat prescriptions, asthma monitoring and “others” and whether they could be delegated. There was no significant difference by practice type on whether any of these services could be transferred.

In the stage of the research involving professionals, the views of GP employed nurses differed from other professionals in some cases. Both NPs and PNs were more likely to have been supported to take on new tasks (Kruskal-Wallis = 16.269, df = 5, *p* = 0.006). NPs were more supportive of delegation from GPs to nurses (Kruskal-Wallis = 26.424, df = 5, *p* = <.001) and were more likely to have been given

training for new responsibilities (Kruskal-Wallis = 26.469, df = 5, p = <.001), had greater access to information (Kruskal-Wallis = 11.662, df = 5, p = 0.040) and regular progress monitoring (Kruskal-Wallis = 24.188, df = 5, p = <.001). However, they were concerned about being left with mundane work (Kruskal-Wallis = 18.418, df = 5, p = 0.002). PNs were less concerned about reduced quality through skill mix (Kruskal-Wallis = 15.090, df = 5, p = 0.010) but more concerned about retaining legal responsibility (Kruskal-Wallis = 14.309, df = 5, p = 0.014) and the loss of nursing skills (Kruskal-Wallis = 15.361, df = 5, p = 0.009).

GP employed nurses were asked to identify in the survey which tasks they felt were core to their job role. The results are shown in table 4.15.

Table 4-15: Professional survey: GP employed nurses' core job roles

<i>Task</i>	<i>Nurse Practitioners</i>	<i>Practice Nurses</i>
Care co-ordination	3 (75%)	26 (77%)
Cervical cytology	4 (100%)	33 (97%)
Chronic disease management	4 (100%)	32 (94%)
Diagnosis and treatment	4 (100%)	12 (35%)
Dressings	2 (50%)	30 (88%)
Ear syringing	2 (50%)	30 (88%)
Family planning	4 (100%)	23 (68%)
First point of contact for patients	4 (100%)	23 (68%)
Health promotion	4 (100%)	33 (97%)
Holistic care	4 (100%)	22 (65%)
Immunisations	2 (50%)	32 (94%)
Prescribing	4 (100%)	4 (12%)
Triage	2 (50%)	19 (56%)
Venepuncture	3 (75%)	28 (82%)

All NPs identified that cervical cytology, chronic disease management, diagnosis and treatment, family planning, being the first point of contact, health promotion, holistic care and prescribing were core to the job. The role profile is similar for PNs with over three quarters identifying care co-ordination, venepuncture, dressings, ear syringing, chronic disease management, immunisations, cervical cytology and health promotion as core to the job.

Management mentioned PNs in their interviews. NPs were also mentioned in terms of understanding skill mix and where it might go in the future:

“... skill mix in primary care for me is probably a changing of the traditional GP role to perhaps get practice nurses ... coming in.”

(Interview 6, PCT Manager)

“... it conjures up early memories ... the person who started to think about primary care facilitators, that primary care nurses could do preventive work ... you might be able to prevent problems, there was all that early work so a lot of her effort went into the training of practice nurses and I think that's when practice nurses started to come forward ...”

(Interview 8, NPDT manager)

“...there is no doubt in my mind that take chronic disease management, very often you will find nurses who are doing far more than doctors ever will so changing that culture makes it OK to accept that the nurse practitioner over there actually knows a lot more about this ...”

(Interview 3, PCT manager)

4.9.3 Support staff – Receptionists and Nursing Assistants

Receptionists were mentioned by patients in the focus groups and interviews in terms of directing patients to the appropriate professional. However, they were viewed by some as a barrier to getting an appointment.

“The first stage is to encourage people at the reception end to see the Nurse rather than the Doctor.”

(Interview 4 – patient)

“Sometimes you have to get through the receptionists as well (to get an appointment) ... Let’s look at it another way, the doctors employ the receptionists and that receptionist is a qualified nurse and she then directs you to the right person. Not all of them are though ... But, I’m like M if I ring up for an appointment I don’t tell the receptionist what it is, I don’t want the nosy old bag knowing.”

(Focus group 3 – mixed group)

One of the managers interviewed noted the importance of receptionists in team developments:

“I think the best people to develop the service are the whole team, from the receptionist upwards, because the reception staff know the patients better than anyone else ...”

(Interview 1, PM)

In terms of the role of nursing assistants, patients felt that there were some tasks which could be delegated. However, they had some difficulties understanding the role:

“I’m not sure what a health care assistant is ... I think that the practice has to be satisfied that the person is capable. Taking blood is very ... you have a job to find a vein ...”

(Focus group 1 – traditional practice)

“To be honest, I think that would be OK. I think it’s something that doesn’t require much skill (taking blood).”

(Focus group 3 – mixed group)

Table 4.16 shows whether patients responding to the survey used a range of services and whether they thought they could be transferred from nurses to assistants.

Table 4-16: Patient survey: Nurse to assistant delegation

Service	Agree could be delegated	Used service	Link between agreement to transfer and use of service?	
			χ^2	<i>p</i>
Blood pressure checks	182 (78%)	162 (69%)	7.114	< 0.05
Weight checks	177 (76%)	92 (39%)	16.361	<.001
Urine tests	170 (73%)	137 (59%)	28.279	<.001
Blood tests	149 (64%)	168 (72%)	0.441	> 0.05
Assisting with minor surgery	96 (41%)	37 (16%)	5.158	< 0.05
ECG tests	75 (32%)	62 (27%)	20.994	<.001
Other ¹	12 (5%)	7 (3%)	64.897	<.001

1 – Others identified were minor dressings and ulcers.

Blood and urine tests and weight and blood pressure checks were the services which most patients felt could be delegated. Most patients had also used these services. The use of all services, except blood tests, was significantly associated with views on whether they could be transferred. There were no significant differences by practice type on whether any of the services could be delegated from nurses to assistants.

Professionals also mentioned delegation to assistants in their interviews. It was noted that appropriate training - NVQ accredited - was necessary and that in some practices assistants were taken from reception with little training. However, the HCA interviewed felt confident she would not take on roles beyond her competencies. The

relatively low cost of the support worker was noted. Management also mentioned that unqualified roles should be supported and the move towards patients accepting support workers was noted:

“... they (GPs) support much more freely the development of health care assistants and support workers ... partly because of their hourly rate ... I think we also need to be careful for and to protect health care assistants and support workers because patients see someone in a dress, in a uniform, and they assume they are a qualified nurse and we have to make sure they understand.”

(Interview 4 – NP)

“I wouldn’t take on anything I wasn’t happy with and I’m sure it wouldn’t come to that, they wouldn’t leave me out of my depth.”

(Interview 6 – HCA)

“(loss of quality) has to be a possibility if you haven’t got the training right and people don’t follow what I call the delegation curve ... I think you’ll find, it’s probably less common at the bottom NVQ type, than it is with doctors delegating to practice nurses – see one, do one, teach one.”

(Interview 3, PCT manager)

“... patients are now starting to accept other members of the team, health care assistants taking blood, phlebotomists etc.”

(Interview 1, PM)

4.9.4 General medical practitioners

GPs were mentioned by patients in the study in the context of their workload and how skill mix could help manage it. Service issues of communications, continuity and specialisation were also noted:

“GPs now appear to have too much work to do, and you’ve got other people who can see a patient, apart from a GP.”

(Interview 3 – patient)

“Dr B does certain things and Dr F does other things and they specialise in things ... bearing in mind you’ve got six or seven doctors at location B, which one do you see?”

(Focus group 3 – mixed group)

GPs in the professional survey were asked whether a range of tasks were core to their role. Table 4.17 shows that over three-quarters of GPs identified family planning, holistic care, health promotion, chronic disease management, care co-ordination, prescribing and diagnosis and treatment as central to their role.

Table 4-17: Professional survey: GP core job roles

<i>Task</i>	<i>GPs</i>
Diagnosis and treatment	47 (100%)
Prescribing	46 (98%)
Care co-ordination	42 (89%)
Chronic disease management	41 (87%)
Health promotion	40 (85%)
Holistic care	38 (81%)
Family planning	36 (77%)
First point of contact for patients	34 (72%)
Triage	34 (72%)
Cervical cytology	14 (30%)
Immunisations	13 (28%)
Venepuncture	9 (19%)
Ear syringing	7 (15%)
Dressings	6 (13%)

GPs were also asked what they would delegate and to whom. Table 4.18 shows that over three-quarters have already delegated asthma, diabetes and coronary heart disease (CHD) monitoring. The main task they would be unwilling to delegate was demand for immediate care.

Table 4-18: Professional survey: tasks GPs have or would delegate

<i>Tasks</i>	<i>Have delegated</i>	<i>Would delegate</i>	<i>Would not delegate</i>
Asthma monitoring	41 (89%)	3 (7%)	2 (4%)
Diabetes monitoring	39 (85%)	5 (11%)	2 (4%)
Heart disease monitoring	37 (80%)	5 (11%)	4 (9%)
Contraception	29 (63%)	7 (15%)	10 (22%)
Advice	29 (63%)	7 (15%)	10 (22%)
Respiratory problems	25 (54%)	5 (11%)	16 (35%)
Anti-coagulation monitoring	22 (48%)	12 (26%)	12 (26%)
Mental health problems	20 (44%)	13 (28%)	13 (28%)
Musculo-skeletal problems	15 (33%)	15 (33%)	16 (35%)
Immediate care	15 (33%)	9 (20%)	22 (50%)
Skin complaints	12 (26%)	15 (33%)	19 (41%)
Repeat prescribing	9 (20%)	17 (37%)	20 (44%)

GPs were also asked to which professionals they would be prepared to delegate these tasks. Table 4-19 shows that PNs are the professional that GPs either have or would be prepared to delegate tasks to, with NPs the next most popular choice.

Table 4-19: Professional survey: professionals GPs would delegate tasks to

Tasks	GPSI	DGP	NP	PN	HCA	DN	HV	CPN	Phy	Ph	O ¹
Asthma monitoring	0	0	7	44	0	0	0	0	0	0	0
Diabetes monitoring	3	1	6	40	7	2	0	0	0	0	0
Heart disease monitoring	2	1	5	39	3	1	0	0	0	0	0
Contraception	2	1	11	26	0	0	2	0	0	0	0
Advice	5	7	15	32	10	9	13	8	9	8	0
Respiratory tract problems	1	0	11	12	0	0	1	0	0	2	0
Anti-coagulation monitoring	2	0	4	22	11	3	0	0	0	2	0
Mental health problems	1	0	1	1	0	0	3	28	0	0	0
Musculo-skeletal problems	0	7	7	4	1	1	0	0	21	0	1
Immediate care	0	7	9	8	1	4	2	2	1	2	2
Skin complaints	13	1	10	8	0	1	2	0	0	0	0
Repeat prescribing	1	1	4	7	0	2	1	1	0	17	2
Totals	30	20	90	243	33	23	24	39	31	31	8

1 – Others included chiropractor, ambulance and counsellor

Notes:

GPSI (GP with special interest), DGP (duty GP), NP (nurse practitioner), PN (practice nurse), HCA (health care assistant), DN (district nurse), HV (health visitor), CPN (community psychiatric nurse), Phy (physiotherapist), PH (pharmacist), O (Other)

Following this up in the interviews, the GPs were asked whether there was anything they would feel uncomfortable delegating. One was more willing to delegate than the other. The more reserved GP was concerned about demand for immediate care because diagnosis and therapeutics were not nursing skills. They would only

delegate repeat prescribing to pharmacists and were generally concerned about dermatology as a complex topic:

“I’d delegate that (repeat prescribing) to a pharmacist.” Not to a nurse? “No, well some of it I would, certain areas you would, but even in chronic disease management, these are complex diseases and you might get them giving something for hypertension and not realise that it interacts with something else. I think that GPs might delegate immediate care to someone trained through the nurse practitioner course ...” “What about skin complaints?” Well, I find that damn difficult, you need special training but I’m still struggling with it, I could do with more training. I think dermatologists struggle with it to be quite honest.”

(Interview 1 – GP)

“I think my skills which are pertinent to me as a doctor are diagnosis; that doesn’t mean that you have to be a doctor to diagnose because we have a nurse practitioner who can do some of it but she can’t do all of it but a lot of it she can. There are no obvious things that I can’t see being delegated to an appropriate person, if there is one.”

(Interview 5 – GP)

Management identified GPs as a key stakeholder in skill mix in primary care and also that skill mix could make better use of their relatively expensive time:

“... arguably GPs are more expensive and if we can get someone who’s not quite so expensive to do it, then let’s do that.”

(Interview 6, PCT Manager)

4.9.5 Other professionals

Patient views on pharmacists were gathered through the survey. Patients were asked whether they thought pharmacists could take on work previously carried out at the practice. Just under half (99 or 41%) agreed they could. There were no significant differences in views by practice type ($U = 6330$, $Z = -0.816$, $p = 0.414$), gender ($U = 6829$, $Z = -0.006$, $p = 0.995$), length of registration (Kruskal-Wallis = 2.29, $df = 3$, $p = 0.515$) and working status ($U = 5903$, $Z = -1.888$, $p = 0.059$). However, those aged 65 and over were more likely to disagree with this (Kruskal-

Wallis = 13.66, df = 6, p = 0.034). Patients in the interviews and focus groups viewed the role of the pharmacist positively because of access and convenience:

“Many people would consult the chemist primarily because they don’t have a waiting list.”
(Focus group 1 – traditional practice)

Management mentioned other professionals including counsellors and dieticians:

“... skill mix in primary care for me is probably a changing of the traditional GP role to perhaps get ... other professionals coming in. Perhaps on one hand you could have, as we’ve mentioned, counsellors coming into a practice ...”
(Interview 6, PCT manager)

“... the idea of the zone is excellent, it gives practices greater opportunities to work together ... we can chip in to buy a dietician. ...”
(Interview 1, PM)

4.10 Summary and key points

This section summarises the main findings from the research in figures which show:

- An overview of the patients, professionals and management involved in the study (figure 4.1);
- An overview of the results relating to the interpretation of the term skill mix in primary care (figure 4.2);
- An overview of the service issues in skill mix in primary care (figure 4.3);
- An overview of the drivers for skill mix in primary care (figure 4.4);
- An overview of the issues that influence skill mix in primary care (figure 4.5);
- An overview of the professionals involved in skill mix in primary care (figure 4.6).

It is interesting to note at this stage that few differences in views emerged across a range of findings. If a significant difference in views did emerge, it is shown in the figures in italics. For professionals, the main influence on views appears to be job

role. For patients, the main influence on views appears to be the use of different types of services.

Figure 4-1: Overview of the patients, professionals and management involved in the study

Patient involvement:

- 263 patients involved (12 in focus groups, 10 in interviews, 241 in survey).
- Predominantly female, retired/not working, older (45 years and over), in good health and white European.
- Registered with their GP practices for more than five years.
- From practices with relatively low deprivation scores and high levels of skill mix.
- *Patients in the survey from skill mix practices were less likely to be working and were significantly older.*

Professional involvement:

- 136 primary care professionals involved (8 in interviews, 128 in survey).
- 4 nurse practitioners (NPs) were involved, 14 health care assistants (HCAs), 62 practice nurses (PNs), 88 GPs, 30 health visitors (HVs) and 81 district nurses (DNs).
- Most were female; *GPs more likely to be male.*
- Most had been qualified for 16+ years. *Those qualified for 16 or more years were predominantly PNs and GPs. The majority of those qualified between one to five years were HCAs and those qualified between six and ten years were DNs, HVs and HCAs. GPs and DNs were mostly qualified between 11 to 15 years.*
- Most were aged between 35-44 and 45-54 years. *Those aged between 35-54 years were predominantly GPs and PNs. Those aged under-35 years were predominantly DNs and HCAs. Those aged 55-64 years were predominantly PNs and HVs.*
- Over half the GPs were members of the Royal College and over half the nurses had undertaken post registration training in the last year.
- Most nurses were based at the surgery.

Management involvement:

- 8 individuals in primary care management roles involved.
- 2 practice managers, 2 primary care trust managers, 2 strategic health authority managers and 2 Department of Health managers.
- Average 7.7 years NHS management experience.
- Backgrounds/experience included practice management, health authority and PCT management, other public sector management, health/social care professional backgrounds and private sector management.

Figure 4-2: Overview of the results relating to interpretation of skill mix in primary care

Delegation:

- Key to understanding, focus on delegation to nurses to reduce GP workload.
- Patient acceptance of delegation to nurses and to a lesser extent to assistants.
- High levels of professional support for delegation to nurses and assistants; *nurse practitioners (NPs) most supportive of delegation to nurses, professionals aged 16-24 least supportive.*
- Shared emphasis on the importance of training and education.

Diversification:

- Patients expressed some concern although professionals and management supportive.
- Patients did not rate a wide range of health and social care professionals at the practice particularly highly; *those of working age (16-54 years) most supportive.*
- Nearly all professionals favoured new types of professional joining the practice team and three-quarters supported existing team members taking on new roles.

Teamwork:

- Most professionals felt part of a team and were clear about contribution; *attached nurses and health care assistants (HCAs) less likely to feel part of the team.*
- Less sure that roles were clear cut and work was regularly monitored.
- Teamwork favoured over autonomy; *health visitors (HVs) preferred autonomy though.*
- Most had attended a team building event in the last year; no links between positive views on team functioning and attendance at an event.
- Management were convinced of the benefits of teamwork but less convinced that it actually occurred.

Professional development:

- Professional development for nurses more influential in developing skill mix than GP development.
- Professionals rated making best use of team skills as an advantage of skill mix; over half felt that it had occurred.
- Job satisfaction was rated lower by professionals; only a quarter felt it had occurred through skill mix.
- Interest in becoming a NP or a GP with a special interest was modest; *nurses aged 16-44 more interested in becoming an NP.*

Meeting patient needs:

- Important outcome for professionals although only half felt it had occurred.
- Important outcome for management too.

Nursing/medical role changes:

- Some professional concern about loss of nursing skills through skill mix; *HCAs, district and practice nurses most concerned.*
- Limited professional concern about the loss of the GP generalist role; more of an issue for management.

Efficiency:

- Skill mix not linked to cost cutting by management but could be more 'efficient'.

Figure 4-3: Overview of the results relating to service issues in skill mix in primary care

Communications:

- Communications between practice professionals not a concern for patients.
- Professionals themselves rated communicated as acceptable and regular team meetings took place.
- In terms of communications with professionals, patients reported good communications with GPs but had less experience of nurses.

Local services – GPs with a special interest:

- Just under half the patients agreed GPs could take on more work from hospitals. Just under three-quarters of professionals felt existing staff could take on roles such as this.
- Patients felt GPs could take on diabetic eye checks, dermatology and rheumatology but were less convinced about them taking on sigmoidoscopy and endoscopy. *Positive association between use of eye checks, rheumatology, echocardiogram services and whether they could be based at practice. Patients from skill mix practices more likely to agree that echocardiograms could be transferred.*
- Professionals felt GPs could take on dermatology, rheumatology, vasectomies and echocardiograms but were less convinced about ophthalmology and endoscopy.
- Patient views were linked to their confidence in the ability of their doctor. Skills, experience and facilities were a concern. It was felt that it could reduce waiting times and be more convenient.

Local services – other professionals based at the practice:

- Patients' views were mixed: some felt it could be more convenient and reduce waiting times although there was concern over practices ability to accommodate more services.
- Services most patients wanted included physiotherapy, chiropody and dietetics (also the 'top three' for professionals); social work and citizen's advice bureaux (CAB) least favoured. *There was a positive association between views and use of all services, except physiotherapy.*
- Professionals wanted a wider range of professionals at the practice than patients, including social workers, community psychiatric nurses and CAB.

Continuity:

- Important to patients but few felt they received it. Noted to be more difficult with nurses as different nurses seen each time.
- Felt to be important for the elderly, teenagers and those with serious or chronic conditions. *In survey, ranked higher by those aged 55+.*
- Just under half professionals concerned about possible loss of continuity.
- Nearly three-quarters of GPs favoured providing personal continuous care over special interests.
- Continuity important part of primary care for management

Consultations length:

- Patients felt that it was about right; access was more important.
- Ranked relatively low by professionals as an outcome from skill mix and had occurred infrequently.
- Extending consultation lengths important to management.

Integration:

- Patients felt social services need not be based at the practice.
- Professionals, *particularly nurse practitioners and district nurses*, supportive of this.
- Management felt integration would be a strong influence for skill mix.

Patient information and advice:

- Some concern confusion from patients about professionals other than GPs giving advice.
- Nearly two-thirds of GPs have already delegated it – predominantly to nurses.

Figure 4-4: Overview of the results relating to drivers of skill mix in primary care

Access to services:

- General patient view that access should be easier. Getting an appointment quickly rated most important service issue for all patients.
- Over two-third of patients would see anyone to be seen sooner; *workers rated this significant higher.*
- *Appointments at the weekend, early in the morning or later at night more important for workers.*
- Meeting the access target was not a significant driver for skill mix from the professional perspective.
- Patients seeing a GP quickly not rated that highly as an important skill mix outcome by professionals; *just under half felt it had occurred though and there was an association between occurrence and ranking.*
- Management felt that improved access and meeting the access targets were important in skill mix.

Increasing workload:

- Patients felt that GP workload was important and skill mix could help reduce it, although if they take work on from hospitals it might not reduce.
- GP workload was rated highly by professionals as a driver for skill mix; *GPs rated it significantly higher.*
- Workload and meeting increasing demand identified by management.

Premises:

- Patients concerned about limitations of GP premises to accommodate skill mix.
- Lack of space at the surgery also highlighted by professionals and management.

Shift of work from secondary care:

- Rated relatively highly by professionals as driver for skill mix.
- Management linked increasing workload in secondary care as an influence on skill mix and that if could meet secondary care targets, such as waiting times.

Cost savings:

- Rated relatively low as a driver by professionals; *attached nurses ranked it significantly higher.*
- Some professionals and management felt skill mix could be more expensive
- Management felt skill mix driven more by efficiency than need to cut costs.

Human resources issues:

- Shortage of GPs not felt to be driver for skill mix by professionals; general recruitment difficulties were a barrier however.
- Nursing recruitment identified by management as an issue.

Contractual changes:

- Original general medical services (GMS) contract noted as a barrier to skill by management.
- Opportunities for development with the new GMS contract and personal medical services noted.

Nurse prescribing:

- Nearly three-quarters of patients felt that nurses could take on repeat prescribing; *association between use of service and views on transfer.*
- Some patient views that it ought to be limited though.
- Prescribing core to a number of professional roles – GPs, nurse practitioners and health visitors.
- Management noted importance of nurse prescribing as a driver.

Figure 4-5: Overview of the results relating to issues in skill mix in primary care

Staff competencies:

- Over half of professionals concerned about competencies of staff to take on new roles through skill mix.
- Some management concerns if support not available.

Education and training:

- Patients identified the importance of this in role development.
- Over two-thirds of professionals had been supported and encouraged to take on new responsibilities; *nurse practitioners (NPs), practice nurses (PNs) and health care assistants (HCAs) felt most supported.*
- Over half of professionals agreed they had been given the necessary training to take on new responsibilities; *NPs in most agreement.*
- Training was also important to management and there was a key role for management in developing programmes.

Supervision:

- It was important for patients that staff had supervision through skill mix.
- Clinical supervision important to management.

Time:

- Patients felt skill mix could make more efficient use of time.
- Professionals agreed but felt it could initially be more time consuming and over half were concerned about time to implement and manage skill mix.
- Management also felt skill mix could make more efficient use of time but agreed time needed to be available for development.

Employer:

- Different employers for team members something of an issue for professionals.

Independent contactor status:

- Identified as a barrier by professionals and some management.

Accountability:

- Over half the professionals were worried about retaining legal responsibility for delegated tasks; *PNs most concerned.*

Access to information:

- Nearly three-quarters of professionals agreed they had access to the necessary information to do their job.
- Role for management identified in providing information about possible skill mix changes.

Professional issues:

- Impact of professional bodies, barriers and role identify raised by management.

Quality of care:

- Just under half professionals concerned about loss of quality; *GPs and PNs least concerned.*
- Some management concern about loss of quality unless accompanied by training and supervision. Others felt quality could increase.

Attitudes:

- Professionals did not rate attitudes generally as a significant barrier: GP attitudes were the biggest barrier, followed by patients then nurses; *NPs rated GP attitudes significantly higher.*
- Some patients and management also identified patient attitudes as an issue.

Figure 4-6: Overview of the professionals involved in skill mix in primary care

Attached nurses – District nurses (DNs) and Health visitors (HVs):

- Felt skill mix had been influenced by the Community Care Act and Community Nursery Nurses.
- The self defined roles of each were quite different. DNs focused on being the first point of contact, venepuncture, chronic disease management, care co-ordination, ear syringing, health promotion, holistic care and dressings. HVs focused on family planning, prescribing, care co-ordination and holistic care.
- HVs place in skill mix in primary care not mentioned by management or patients. DNs mentioned in terms of large numbers due to retire and positive mention of depth of relationship.

GP employed nurses – Practice nurses (PNs) and Nurse practitioners (NPs):

- Patients felt a range of tasks could be delegated to nurses including repeat prescribing, seeing those with coughs/colds, asthma and diabetes monitoring; *there was a positive association between use of repeat prescribing and asthma monitoring and views on transfer.*
- NPs in the study defined their core roles as cervical cytology, chronic disease management, diagnosis and treatment, family planning, being the first point of contact, health promotion, holistic care and prescribing.
- PNs focused on care co-ordination, venepuncture, dressings, ear syringing, chronic disease management, immunisations, cervical cytology and health promotion.
- Management mentioned both PNs and NPs in the interviews, in terms of future developments.

Support staff:

- Patients mentioned receptionists as helping patients to access the correct professional but also perceived as a barrier to getting an appointment.
- Receptionists important to management as felt to understand patient needs.
- Patients felt some tasks could be delegated to assistants although struggled to understand the health care assistant (HCA) role. Blood and urine tests and weight and blood pressure checks were identified. *The use of all services, except blood tests, was positively associated with views on transfer.*
- Professionals identified the need for assistants to be appropriately trained – NVQ – and also the relatively low cost of the assistant.
- There was management support for unqualified roles.

GPs:

- Patients viewed GPs positively in terms of services and felt skill mix could help them with workload.
- GPs identified that their core roles as family planning, holistic care, health promotion, chronic disease management, care co-ordination, prescribing, and diagnosis and treatment.
- GPs identified tasks they had already delegated including asthma, diabetes and CHD monitoring, mainly to nurses. The main task they would be unwilling to delegate was demand for immediate care. Views on delegation were influenced by understanding of others roles and perceived complexity of task.
- Management identified GPs as a key stakeholder and that skill mix could make better use of their relatively expensive time.

Other professionals:

- Just under half the patients thought pharmacists could take on more work from the surgery; *those aged 65+ were least likely to agree to this.* Positive views were linked to access and convenience.
- Management mentioned the inclusion of others on the practice team including counsellors and dieticians.

This chapter has described the data collected throughout the study. It has profiled the participants in the research and identified the response rates. The results of the qualitative and quantitative stages of the research are described under the key headings of interpretation, services, change drivers, issues and professional specific factors. Having presented and described the results of the study, the next chapter will summarise and explain the results in the context of the existing research from the literature review in chapter 2 and draw conclusions on the research problems.

5 Analysis and discussion

5.1 Introduction

This chapter takes the results presented in chapter 4 further by analysing and explaining them in the context of the existing research. It highlights areas of agreement and disagreement against existing research, considers why this might be the case, and identifies new findings. The chapter also shows how the results contribute to meeting the research aim and objectives, as outlined in the introduction, chapter 1. This chapter is structured around the objectives and it is considered to be useful to restate the aim and objectives at this point:

Research aim:

To contribute to the understanding of skill mix in primary care by studying the perspectives of patients, professionals and management.

Research objectives:

- 1. To identify the opinions of patients, professionals and management on skill mix in primary care.*
- 2. To identify whether there is any convergence in views, the extent of divergence and to develop a model to show this.*
- 3. To test existing definitions of 'skill mix' and 'primary care' from the three stakeholders' perspectives.*
- 4. To understand what influences views on skill mix in primary care.*
- 5. To analyse the existing literature to identify the key issues to be studied, to test the issues to confirm or disprove current work, and develop a model to show this.*

6. *To develop a methodology for studying patients' views on skill mix in primary care.*
7. *To make recommendations for evidence-based policy for implementation and national and local levels.*
8. *To provide a basis for future research into this area and offer suggestions for further research.*

The chapter begins by analysing the findings on patient, professional and management perspectives (objective 1). The extent to which these views converge and diverge are then summarised, and a model is developed to show this (objective 2). Consideration is then given to the how the terms 'skill mix' and 'primary care' were interpreted in the study and how this compares to existing definitions (objective 3). The factors which were found to influence perspectives on skill mix are then discussed (objective 4). Throughout the chapter, the findings are compared to the existing literature to confirm or disprove current work (objective 5). This is summarised throughout the chapter in figures at the end of each section. The remaining objectives are covered in the conclusions, chapter 6.

5.2 Patient perspectives on skill mix in primary care

Delegation to nurses was frequently mentioned by patients in the focus groups and interviews in terms of their general understanding and experiences of skill mix. The importance of this aspect of skill mix to patients was supported in the literature and a number of studies report positive patient

views on delegation to nurses (Bhopal, 1994; Poulton, 1995; Dolan *et al*, 1997; Salisbury and Tettershall, 1998; Chapple *et al*, 2000; Kinnersley *et al*, 2000; Chapple, 2001). However, one of the cited advantages of patients seeing nurses more frequently is that they are easier to talk to, a finding that was not supported in this study. This suggests that patients see other advantages for nurses taking on work through skill mix. In this study, the nurses' role in 'helping' the GP was more important.

Patients in the survey identified a number of tasks which they considered could be delegated from GPs to nurses. Repeat prescribing, asthma management and seeing patients with coughs/colds were priorities for delegation. Patient views on delegation of asthma and coughs and colds were not available in the literature, suggesting that this is an area where more research may be necessary. The literature does include studies on patients' views on nurse prescribing. Brooks *et al* (2001) found that patients thought it was a good idea, but raised issues around the need to limit nurses to prescribing 'minor things'. However, Reveley (1998) found patients preferred to consult a nurse if they 'just want a prescription', because of easier access. Patients in the focus groups and interviews identified other limits to nurses' roles. This included giving advice on more serious illnesses and taking on work around the more 'important' disease areas, such as heart disease. Limits to nurse roles from the patient perspective are also found in the literature, with some patients still preferring to see a doctor in minor injuries clinics (Chapple *et al*, 2001; Shum *et al*, 2000).

In terms of delegation to assistants, patients agreed in the interviews and survey that assistants could take on more work from nurses: mostly 'checks' and 'tests'. Patient views on delegation to assistants were not found in the literature, suggesting further research would be advantageous to complement this study. However, there were limits to what patients thought assistants could take on. Patients who responded to the survey were concerned about assistants helping the doctor with minor surgery and performing ECG tests. This seems to be connected to the perceived seriousness of the interventions – 'surgery' and ECGs (testing the heart). However, it appears that patients' views do change over time. Early studies found older patients and those from ethnic minorities wanted GPs to take blood (Lewis, 1994; Williamson, 1995). Today, these are tasks predominantly carried out by nurses and nurse assistants.

Patients valued access to pharmacists in the focus groups. However in the survey there was least support for delegation to pharmacists. This may be linked to findings in the literature that patients are concerned about pharmacists taking on more work because they cannot undertake full examinations or access patient records (Hassell *et al*, 2000). These are both areas that are slowly changing however following the introduction of a new pharmacy contract. More pharmacies now have confidential consultation areas and will soon have access to the NHS care records 'spine' (Department of Health, 2006).

Patients in the interviews and focus groups thought that whoever took on new

tasks through skill mix must have adequate training and experience, be able to access a doctor 'if they're not sure', and communicate effectively with the doctor over care and treatment. The importance of these factors to patients was not found in the literature. This suggests that there is potential for further exploration of the conditions that patients place on skill mix developments.

Service diversification, including enhanced roles for GPs and the use of other professionals in primary care, was mentioned infrequently by patients in the focus groups and interviews. This is a relatively new area of skill mix development and differs from practice to practice in contrast to delegation to nurses which happens in most practices. In terms of GPSIs, there was limited patient support for this development in the focus groups and survey. The literature on this area is minimal, although patients were found to be supportive of improved access to services with a GPSI in ENT but were concerned about the invasive nature of the procedures (Ward, 2003). Similar views emerged in this study when patients in the focus groups and interviews were asked for their views on GPs undertaking endoscopies. In the survey, the specialities for which there was most patient support for GPSIs were diabetic eye checks, dermatology and rheumatology - none of which are invasive. The literature shows patient support for outreach ophthalmology (Gillam *et al*, 1995) and specialist clinics for rheumatoid arthritis (NHS Executive, 2000).

Diversification through skill mix can also involve other professionals being based at the practice. Patients in the survey identified professionals who they

though could be based at the practice and their top priorities included physiotherapists, chiropodists and dieticians. The preference for physiotherapists to be based at the practice is also identified by Surender *et al* (1998) who note that patients expect to find physiotherapists based in practices. However, patients in the interviews and survey were generally unconvinced about the benefits of a wide range of services and professionals at the practice. This links to concerns from the focus groups and interviews about space at the practice, facilities and parking. This is contrary to the literature where a number of studies showed patient support for a wide range of services at the practice including occupational therapists, pharmacists, link workers, CAB, mental health services and respiratory health workers (Cockcroft *et al*, 1987; Katon *et al*, 1997; Gillam and Levenson, 1999; Galvin *et al*, 2000; Hassell *et al*, 2000; NHS Executive, 2000).

Advantages of skill mix identified by patients in the interviews and survey included improved access and choice. The national studies on patient experience of primary care also showed patients were concerned about access (Department of Health, 1999; Department of Health, 2002). Patients in the focus groups thought that more people could be seen through skill mix, it would avoid the problem of waiting to get an appointment and it could be more convenient. When implementing skill mix, it is important to be aware of the advantages for patients and to try to realise them through skill mix. Further exploration of patient perceived advantages of skill mix may also be necessary as this study has identified some advantages, but the range of advantages raised in this study does not appear in the literature.

Figure 5-1: Patient perspectives on skill mix in primary care: how the findings of this study relate to the existing literature

<i>Findings from the study supported by the literature:</i>
<ul style="list-style-type: none"> ▪ Patient support for delegation to nurses ▪ Limitations to what nurses can take on through skill mix ▪ Concerns about delegation to pharmacists ▪ Access main priority for skill mix ▪ Support for physiotherapy at the practice ▪ Support for community based ophthalmology and rheumatology ▪ Support for nurse prescribing, although limitations apply
<i>Findings from the study not supported by the literature:</i>
<ul style="list-style-type: none"> ▪ Ambivalent about a range of professionals based at the practice ▪ Nurses not easier to talk to than GPs
<i>Findings from this study not found in the literature:</i>
<ul style="list-style-type: none"> ▪ Patients place conditions on what can and cannot be delegated ▪ Patients views on advantages of skill mix ▪ Patients views on diversification – including specialists and a range of services at the practice ▪ Support for community-based dermatology ▪ Support for dietetics and chiropody at the practice ▪ Support for nurses monitoring asthma and seeing patients with coughs/colds ▪ Patients' views on delegation to assistants

5.3 Professional perspectives on skill mix in primary care

Professionals in the survey were largely supportive of work delegated to nurses and to assistants. There is clearly considerable scope for delegation, and so GPs in the survey were also asked which tasks they had or wanted to delegate. Monitoring asthma, diabetes and CHD, and contraception, advice and respiratory tract problems were their top priorities for delegation to

nurses. Jenkins Clarke and Carr-Hill (2001) also found that GPs were increasingly willing to delegate respiratory tract problems and contraception to nurses. However, they found they were also willing to delegate other tasks such as screening, prescribing, advice, musculo-skeletal problems and skin complaints. Illiffe (2000) found GPs were also willing to delegate demand for immediate care. The GPs interviewed did not wish to delegate these tasks as it was thought that diagnosis and therapeutics were not nursing skills and the topics were considered complex. There is clearly willingness for GPs to delegate some tasks, but the literature identified that some patients will still want to see a GP or prefer GPs to carry out most procedures (Lewis, 1994; Williamson, 1995; Baker and Streatfield, 1995; Jenkins-Clarke *et al*, 1997).

There is evidence from the survey that delegation and transfer of tasks across the team seems to have already occurred. Professionals were asked to identify which tasks they considered were core to their job role. A number of tasks appeared to be within the remit of several professionals. This does raise concerns about the potential for role overlap or confusion, identified in the literature (Hutchinson and Gordon, 1992; English, 1997; Farrell, 2000).

The results for each professional group are summarised in table 5.1. The main areas for potential overlap seem to be care co-ordination, being the first point of contact for patients, health promotion and holistic care. Being the first point of contact in particular has been identified as one of the few clearly defined areas of the GPs role, but it is also often identified as a task for delegation (Chambers, 1998). In this study, it would appear that this has been delegated but is still considered by nearly three-quarters of the GPs as core to their role.

Table 5-1: Professional survey: core job roles, by profession

<i>Task</i>	<i>DNs</i>	<i>HVs</i>	<i>NPs</i>	<i>PNs</i>	<i>GPs</i>
Care co-ordination	17 (90%)	8 (62%)	3 (75%)	26 (77%)	42 (89%)
Cervical cytology	0%	0%	4 (100%)	33 (97%)	14 (30%)
Chronic disease management	16 (84%)	0%	4 (100%)	32 (94%)	41 (87%)
Diagnosis and treatment	6 (32%)	0%	4 (100%)	12 (35%)	47 (100%)
Dressings	19 (100%)	0%	2 (50%)	30 (88%)	6 (13%)
Ear syringing	17 (90%)	0%	2 (50%)	30 (88%)	7 (15%)
Family planning	0%	7 (54%)	4 (100%)	23 (68%)	36 (77%)
First point of contact for patients	15 (79%)	6 (46%)	4 (100%)	23 (68%)	34 (72%)
Health promotion	17 (90%)	13 (100%)	4 (100%)	33 (97%)	40 (85%)
Holistic care	18 (95%)	8 (62%)	4 (100%)	22 (65%)	38 (81%)
Immunisations	8 (42%)	10 (77%)	2 (50%)	32 (94%)	13 (28%)
Prescribing	5 (26%)	7 (54%)	4 (100%)	4 (12%)	46 (98%)
Triage	1 (5%)	1 (8%)	2 (50%)	19 (56%)	34 (72%)
Venepuncture	16 (84%)	0%	3 (75%)	28 (82%)	9 (19%)

Within nursing, there is concern about role overlap and confusion too. Health visitors have been found to be concerned about practice nurses taking on health promotion (Salisbury, 1991). As the table shows, in this study high proportions of both considered that health promotion was core to their role. The work of district and practice nurses has also been noted to be basically

the same (Eve *et al*, 2000). In the survey, a number of shared roles for practice nurses and district nurses did emerge. The main areas of difference seemed to be that practice nurses were also engaged in cervical cytology, family planning and triage. This seems to suggest that a number of district nurse roles have been taken on by practice nurses, and that there is significant potential for role overlap and confusion.

Achieving clarity over contribution, particularly where a number of professionals contribute to a particular task can be linked to teamwork. Teamwork has been linked to skill mix because of healthcare becoming more complex and no longer just the gift of doctors (Georgian Research Society, 1991; Audit Commission, 2002). Some teamwork difficulties did emerge from the survey, including difficulties defining roles and monitoring work, also highlighted in the literature (Boothroyd Brooks, 1973). Communications also emerged as an issue in the interviews, where the size of teams grows as a result of skill mix (West, 1996; Huczynski and Buchanan, 2001). Difficulties relating to teamwork in primary care have also been noted in the literature (Hutchinson and Gordon, 1992; English, 1997; Farrell, 2000). Despite some difficulties however, professionals in this study still favoured teamwork over autonomy. This was because of recognition that they could not do everything and they valued the contribution of others. This is an interesting finding as the literature suggests that the very reason GPs and some practice nurses work in primary care is because it provides them with autonomy, and teamwork can conflict with this (Pringle, 1992; NHS Confederation, 2002). It may be that in

this study teamwork rather than autonomy met more professional needs and helped manage high workloads.

Although delegation has occurred and was largely supported in the survey, some concerns did emerge. Within the literature, delegation to nurses may be seen by some as doctors offloading boring work and there was concern that nursing should not be about taking on medical work (Bowling, 1981; Magennis *et al*, 1999). These concerns were echoed by nurses responding to the survey, who were concerned about the loss of nursing skills, control, and being left with mundane work. This suggests that skill mix can make work more interesting, but that the actual transfer of tasks needs to be carefully managed to avoid de-motivating staff in the process. Increasing nurse workload was also identified in the study as a barrier to skill mix. This is supported by the literature (Georgian Research Society, 1991; Robinson *et al*, 1993; Gillam *et al*, 1995; Robertson *et al*, 1997; Leonard, 1999; Audit Commission, 2002; Zermansky, 2002). This suggests that the nursing workforce needs to expand to enable skill mix to develop. Other difficulties identified included a lack of training opportunities for nurses, supported by the literature (Georgian Research Society, 1991; Robinson *et al*, 1993; Rapport and Maggs, 1997; Walsh, 1999). Nurses in the survey were also concerned about retaining legal responsibility for delegated tasks. Concerns from nurses on this topic seem to be a recent development, as the literature only identifies GPs being concerned about retaining legal responsibility (Bowling, 1981; McKinstry and Gillies, 1988; Georgian Research Society, 1991; Magennis *et al*, 1999; Richards and Tawfik, 2000).

Considering diversification, professionals responding to the survey were highly supportive of other professionals joining the team. In terms of the potential for diversification, this is influenced by surgery space and facilities. Professionals identified this as a barrier to development in the survey, supported by the literature (Georgian Research Society, 1991; Robinson *et al*, 1993; Gillam *et al*, 1995; Robertson *et al*, 1997; Leonard, 1999; Audit Commission, 2002; Zermansky, 2002). Views on the attachment of others to the practice have also been found to depend on the understanding of the role, and contribution they could make (Dyke, 1984). The inclusion of additional members of staff through diversification can also help to ease the workload of existing team members, and this is important as workload emerged as an important factor in skill mix. GP workload was the key driver for skill mix developments in the survey, closely followed by the transfer of work from secondary to primary care, which can be connected. Increasing GP workload was also linked to meeting the national access targets in the interviews, and many GPs had already delegated a range of duties to try and improve their access times. GP workload influencing skill mix also featured strongly in the literature (Pederson and Leese, 1997; RCGP, 1998; Forum for Teamworking in Primary Health Care, 2000; Audit Commission, 2002). However, concerns emerged in the interviews and in the literature that delegation through skill mix might not lead to a reduction in workload, rather it could help manage increasing demand (Barber, 1988; Richardson *et al*, 1998; RCGP, 1998; Wilson *et al*, 2002).

Professionals in the survey were also supportive of existing team members acquiring new skills, for example GPSIs. Potential for development of the GPSI role focused on dermatology, rheumatology, vasectomies and echocardiograms. There was also some support for sigmoidoscopy, ophthalmology and endoscopy. Dermatology and ophthalmology are identified in the NHS plan as priorities for the development of GPSIs (Department of Health, 2001). Existing research on GPSIs in rheumatology, echocardiograms, vasectomies, sigmoidoscopies and endoscopies were not found in the literature. GPs who want to be involved in specialist schemes seem to wish to do so for professional development and interest (Ward, 2003). However, the GPs in this survey were more interested in referring to a GPSI than actually becoming one. The GPs interviewed linked this to the level of experience they considered was necessary and that the 'day job' may suffer. GPs in the survey also felt that providing personal care was more important than pursuing special interests, supported by the literature (Dobson, 2000; Audit Commission, 2002).

Professionals interviewed identified a number of advantages of skill mix including patient choice and making work more interesting. The literature also identifies that skill mix can enhance roles and job satisfaction for GPs and nurses (Jewell, 1997; Leonard, 1999; Magennis *et al*, 1999; Dobson, 2000; Department of Health, 2002). Professionals in the survey also thought that skill mix could better meet the needs of patients, and that best use could be made of team skills, and they felt both had occurred. However, other potential advantages had not been realised: improved access, doctors' concentrating

on more complex cases, and spending more time with patients. The literature identifies that it is important for professionals to be able to spend more time with patients, so it is a concern that this is not being realised (Freeman *et al*, 2002; Roland, 2002; Charles Jones *et al*, 2003). GPs have also identified shortage of time as a barrier to implementing skill mix (Huntington, 1981; Clayson, 1993; Thomas and Corney, 1993), although in the survey all professionals were concerned about it. Improved efficiency and value for money emerged as a potential advantage of skill mix in the interviews. This contrasts with the literature which highlights that value for money has limited, rather than developed, skill mix (Georgian Research Society, 1991; Robinson *et al*, 1993; English, 1997; Wilson *et al*, 2002).

Figure 5-2: Professional perspectives on skill mix in primary care: how the findings of this study relate to the existing literature

<p><i>Findings from the study supported by the literature:</i></p> <ul style="list-style-type: none"> ▪ The importance of workload influencing skill mix ▪ Lack of resources for skill mix ▪ Concerns over training opportunities ▪ Lack of time as a barrier ▪ Nurses' concern about the loss of nursing skills ▪ Nurses' concern about being left with mundane work and loss of control over work ▪ Concerns over competencies ▪ Overlapping roles a difficulty ▪ Professionals do feel part of a team ▪ 'Being the first point of contact' is carried out by more than one professional ▪ HVs and PNs both feel health promotion is core to their role ▪ GPs are willing to delegate respiratory tract problems and contraception ▪ Support for GPSIs in dermatology ▪ Professionals who can make a positive impact on the workload of others are favoured for inclusion on the team
<p><i>Findings from the study not supported by the literature:</i></p> <ul style="list-style-type: none"> ▪ Skill mix is not used to saved money or cut costs ▪ Nurse workload is as important as GP workload ▪ Nurses are more concerned than GPs about retaining legal responsibility ▪ GPs and practice nurses prefer teamwork over autonomy ▪ GPs were less willing to delegate screening, prescribing, musculo-skeletal problems, skin complaints and immediate care ▪ Less support for GPSIs in ophthalmology and ENT ▪ GPs not particularly interested in becoming GPSIs
<p><i>Findings from this study not found in the literature:</i></p> <ul style="list-style-type: none"> ▪ Professional views on the range of services that could be based at the practice ▪ Influences on professional views ▪ Attached nurse involvement in skill mix in primary care

5.4 Management perspectives on skill mix in primary care

The management interviews identified making the best use of resources and time as important in skill mix. This is perhaps unsurprising, as it is the role of

management in the NHS to make effective and efficient use of resources (Gibbs *et al*, 1991; Roberts, 1994; Friesen, 1996). However, skill mix was not attributed to cost-cutting in the study, rather efficiency and/or making better use of people's skills, which was considered to be different. The contribution that skill mix could make to help cut costs was noted by some, although this was not viewed positively. The literature also links skill mix in the NHS with 'cost-effectiveness', 'cost minimisation' and 'cost-containment', principles bound up with 'new managerialism' (Gray and Jenkins, 1993; Anglia and Oxford NHSE, 1996; Degeling *et al*, 2003). Further financial influences noted as affecting skill mix included using limited resources, and at practice level, maximising income and profits. Macmillan and Pringle (1993) have noted that practice managers have a role in maximising income and profits. They go onto note that numbers have increased dramatically over the last 10 years, suggesting an increased importance in this area.

Practice managers were frequently mentioned as key players in skill mix in the study. PCTs were also thought to have an important role, with practices as drivers of skill mix and PCTs supporting and facilitating them with training, supervision and 'expert' knowledge. The roles identified for PCTs, of facilitation and support, are highlighted as middle management characteristics in the literature (Marshall *et al*, 2003). This suggests that the PCT managers working with practices on skill mix are middle managers. Both practice managers and PCTs are part the organisational and instrumental policy levels, which are concerned with the way services operate and produce services, and it is here where policy is made and implemented (Taylor-Gooby

and Lawson, 1993; Peckham and Exworthy, 2003). The study therefore seems to be suggesting that there are few roles for the systematic and programmatic policy levels which shape the health system, determine health priorities and decide on resource allocations.

Opportunities for skill mix to meet patient needs were identified as important in the study. This is a key component of 'managerialism', which includes responsiveness to patients (Gray and Jenkins, 1993). Another aspect of 'managerialism' is meeting targets (Flynn, 1999). A number of targets including earlier discharge from hospital, and reducing emergency admissions and waiting lists were identified as important outcomes for skill mix in the study.

Benefits for staff through skill mix identified in the study included taking on new roles and responsibilities, which it was considered could improve job satisfaction. Teamwork was also identified as important, supported by a focus in the management literature on teams (Collins, 2000). It was also thought that skill mix could lead to a wider range of services in primary care and highly trained, expensive staff concentrating on more 'appropriate' cases. 'Appropriateness' is picked up in the literature. Charles-Jones *et al* (2003) found managers tended to place professional roles in the frame of cost-effectiveness, for example, an 'expensive' G grade nurse doing 'basic' tasks such as dressings or vaccinations. There was some evidence of this way of framing skill mix decisions from management in the study, determining appropriateness in relation to cost-effectiveness. Another staffing issue

identified by management was recruitment difficulties which it was considered could limit skill mix. However, the Audit Commission (2002) identified the need to further develop skill mix because of recruitment and retention difficulties. So recruitment may be both a driver and a limitation.

The organisation and structure of primary care was noted as a barrier to skill mix in the study, with the independent contractor status considered 'ancient', limiting opportunities for development. This can be linked to the literature which indicates that managers are concerned about the limits of their power to influence primary care, and the strong loyalty of GPs to their colleagues (Taylor, 1998; Marshall, 1999). There have been some moves to develop different arrangements to alter this, with others being allowed to provide primary care such as nurses or private companies, but this is still unusual with only a few cases nationally. The policies which have enabled this to happen include PMS pilots and GMS contractual changes, both of which were noted as important policy influences on skill mix. GP fund-holding and nurse prescribing were also noted. The literature also identifies PMS pilots (Lewis et al, 2003) and GP fund-holding as influences (Peckham and Exworthy, 2003). However, nurse prescribing has been linked to professional development for nurses, although the two are not mutually exclusive. It is too early yet to determine what effect the revised GMS contract will have, as it did not come into force until April 2004. However, this should clearly be an area for future exploration.

Some concerns about possible loss of quality through skill mix were mentioned in the study, particularly if training was insufficient. Others thought that quality could improve with more staff dedicated to particular tasks, developing expertise. The difficulty here is that 'quality' can mean different things to different people. Attree (2001) highlighted this issue in his study on the views of managers – as well as professionals and patients – on quality of care. Practical difficulties for the development of skill mix identified by management included limitations of premises. The latter seems to have been an issue without resolve for some while, as the literature notes that back in 1963 the Gillie Committee noted teams needed larger sites to work from (Peckham and Exworthy, 2003).

Management in the study did not feel that there was a clear set direction for skill mix. The lack of a clear set direction for primary care generally is highlighted by Marshall (1999). The new GMS contract, integration of health and social care, and practitioners with a special interest were noted in the study as future developments. Recent policies have emphasized health working much more closely with social care through PCTs who will increasingly 'boundary bust' to commission integrated packages of care (Lewis *et al*, 2003). Increasing specialisation is also occurring and the boundaries between primary, secondary and tertiary care are becoming blurred, through skill mix type developments (Department of Health, 2000; Wanless, 2002).

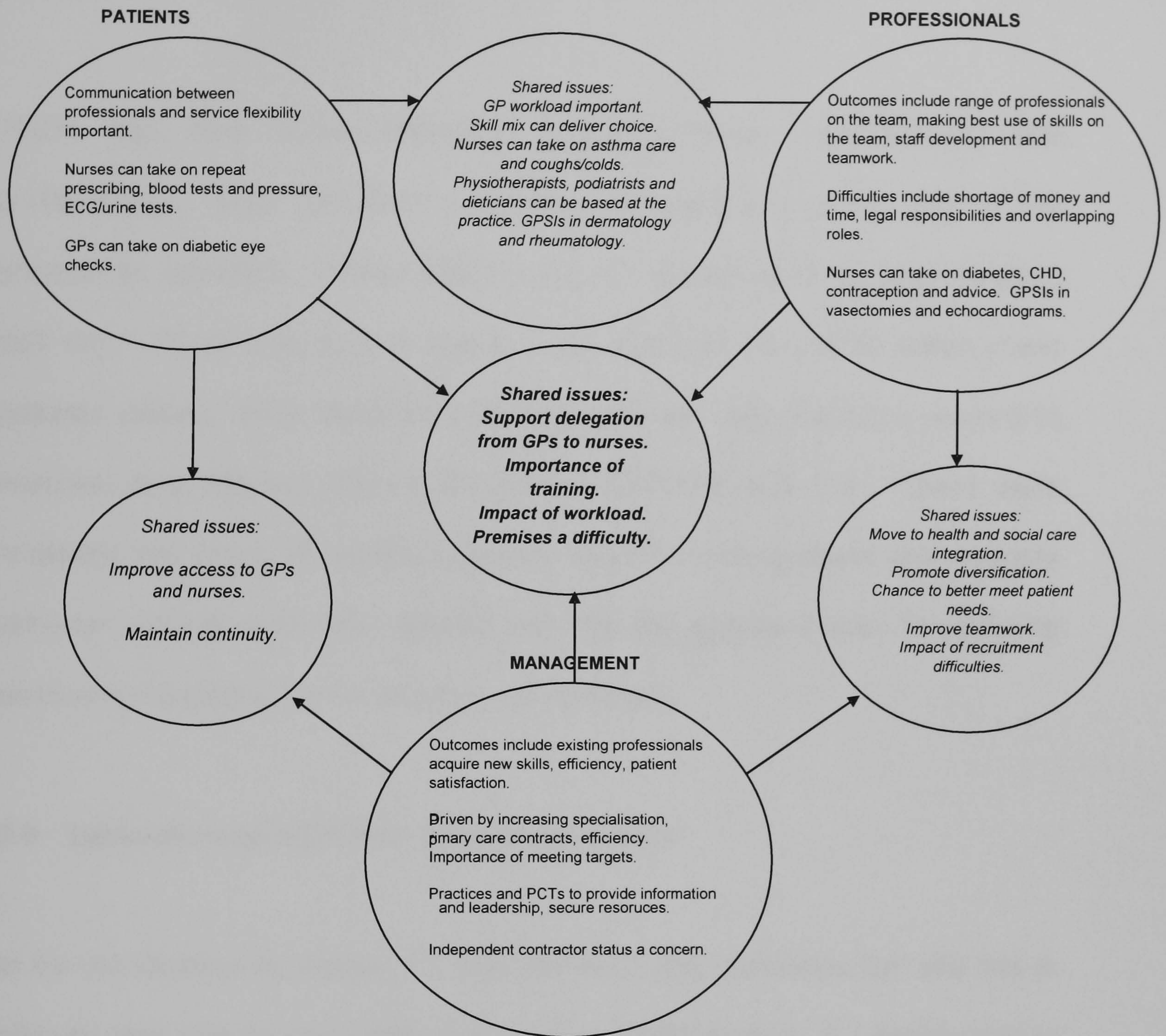
Figure 5-3: Management perspectives on skill mix in primary care: how the findings of this study relate to the existing literature

<p><i>Findings from the study supported by the literature:</i></p> <ul style="list-style-type: none"> ▪ Management support the best use of resources and cost effectiveness through skill mix ▪ Management support teamwork ▪ Management support specialisation ▪ Skill mix can better meet patient needs ▪ Skill mix is an opportunity to meet a range of targets ▪ Key role for practice manager in maximising income and profits ▪ Skill mix can tackle recruitment issues ▪ PMS pilots and fund-holding have influenced skill mix ▪ The independent contractor status of GPs is a barrier ▪ Premises limitations are an issue ▪ There is a lack of a clear national direction for skill mix although the future is likely to involve GPSIs and integration between health and social care ▪ Quality is important to management, although it may mean different things to different stakeholders
<p><i>Findings from the study not supported by the literature:</i></p> <ul style="list-style-type: none"> ▪ Management did not see that skill mix was mainly about cutting costs ▪ Nurse prescribing is one of the key policy drivers for skill mix
<p><i>Findings from the study not in the literature:</i></p> <ul style="list-style-type: none"> ▪ The GMS contract is a key driver and influence on skill mix ▪ Skill mix is most important at the lower levels of the policy processes – practice and PCT level

5.5 Convergence and divergence of views between patients, professionals and management

The preceding sections show the key issues relating to skill mix in primary care for patients, professionals and management. In considering the analysis as a whole, some issues are specific to each group but others are shared. The key issues for each group and shared issues of importance are shown in a model in figure 5.4. The issues in bold italics in the centre were identified by all three stakeholders. The issues in italics were identified by more than one stakeholder group and are placed accordingly. The issues in normal type were identified by one group only. The arrows show casual connections in the model, from key issues for one group only to shared issues. The shared issues between all three groups include support for delegation from GPs to nurses, the importance of training and education in skill mix, the impact of workload on skill mix, and concerns over the capacity of GP premises.

Figure 5-4: Key skill mix issues for patients, professionals and management, and shared issues of importance



In identifying 'common ground' between the different stakeholders, most convergence in views occurred between patients and professionals, and management and professionals. Patients and professionals identified GP workload as an important factor in skill mix and thought that skill mix could deliver improved patient choice. In terms of tasks which could be transferred, there was some agreement here too. Both agreed that nurses could take on asthma care and seeing patients with coughs/colds. They also agreed that

physiotherapists, podiatrists and dieticians should be based at the practice. Dermatology and rheumatology were shared priorities for the development of GPSIs.

There was also some common ground between management and professionals. Both identified integration of health and social care at the practice as important. There was support for greater diversification through skill mix. There was also a shared view that skill mix could better meet patients' needs. Both identified that teamwork was important but needed to improve, and that recruitment difficulties could limit skill mix. There were relatively few areas of common ground between management and patients although management also agreed that two key service issues for patients were also important: that is, access and continuity.

5.6 Definitions of 'skill mix' and 'primary care'

In the introduction in chapter 1 it was identified that definitions for 'skill mix in primary care' can be interpreted and used in different ways. It would be fair to say that this research has confirmed that the term is used in different ways and there are some differences in opinion on what the terms mean. It is likely that meanings may change over time as well, particularly for patients, as services develop.

The service area in which the study took place is considered first: primary care. Peckham and Exworthy (2003) identified that primary care could be

viewed as primary *medical* care (general medical practitioners and their teams) or primary *health* care (where health services are directed towards the needs of a community and increasingly involve a range of health and social care organisations). In this study, patients' understanding of primary care tended to focus on GPs and their immediate teams i.e. primary medical care. In contrast, professionals and management increasingly identified primary care as primary health care. Starfield's (1994) definition of primary care has been widely accepted and is often quoted. It focuses on primary care as being first contact, continuous, comprehensive and co-ordinated. However, it has been noted that this definition is becoming increasingly blurred through skill mix, as procedures are transferred from hospitals and doctors and nurses develop specialist skills (Coulter, 1995). In this study, it appeared that the more traditional focus on first contact continuous care may be moving towards diversification and service development. Professionals and management both acknowledged this. However, for patients, the concept of accessible and continuous care remained very important.

Moving on to consider the term 'skill mix', it became clear that there were some differences in interpretation. Halliwell *et al* (undated publication) identified that skill mix could relate to the mix of disciplinary groups, the mix of skills within a given disciplinary group, and the mix of skills possessed by an individual. For professionals and management, skill mix was linked to a mix of skills within a group (or team in this case) and the mix of skills possessed by an individual, which could be enhanced through personal and professional development.

Halliwell *et al* went on to identify two conceptually different ways in which skill mix could be viewed. Delegation involves tasks formerly performed by a grade or type of professional being transferred to another. In the UK, it is largely focused on the transfer of tasks from highly qualified staff to less qualified, cheaper staff, with the intention to reduce costs and improve efficiency. Diversification is where the range of services is enhanced through recruitment of new types of professional, or where existing professionals acquire new skills. The intention is to meet previously unmet health needs and/or to replace services previously provided in other settings. In this study, delegation from GPs to nurses was central to all the groups understanding of skill mix. For management in particular, the focus was on more efficient use of professionals through skill mix. Diversification in skill mix was limited to professional and management interpretations. Professionals identified the importance of new types of professional joining the primary care team to meet needs. Management focused on existing staff enhancing their skills, and the importance of providing services away from hospitals.

5.7 Influences on perspectives

The key factors which were investigated as having the potential to influence views were identified in the literature review in chapter 2. In the methods in chapter 3 it was also noted that the study would focus on assessing patients' views from 'skill mix' and 'traditional' practices. This would allow for an assessment to be made as to what extent knowledge and experience of skill

mix influenced views. Patients' views were assessed to consider the influence of age, health status, employment status, gender and length of registration. Patients were also asked whether they had used a range of services in order to ascertain whether this influenced views on skill mix. Professional views were assessed to consider the influence of years since qualification, gender, age, GP trainer status, membership of the Royal College of General Practitioners, evidence of CPD, and a base at the surgery. Views were also assessed by job role. Figure 5.5 at the end of the section gives an overview of findings from the study which are supported by the literature, those which are not, and new findings.

5.7.1 Influences on patient views

Considering patient views, the main influence that emerged was the use of services which significantly affected views on the potential for GPSI developments, professionals who could be based at the surgery, and services which could be delegated to nurses and assistants. Age influenced views on continuity of care and the involvement of pharmacists in skill mix. Working status influenced views on access. This means that health status, gender, the type of practice a patient is registered with, and length of registration did not appear to influence views.

It is not clear why there were no significant differences in views emerging from those registered with 'skill mix' or 'traditional' practices. It could be that the status of the practices changed over time, that there was insufficient

distinction between the types of practices, or that the means of classifying the type of practice needed to be more sophisticated. This will be discussed in more detail in the conclusions chapter 6. It is also helpful at this point to consider the profile of the patients involved. Over half were female, with a relatively high proportion aged 60 years and over. Most described their health as good and over half were not working. These factors do need to be borne in mind when considering the applicability of the analysis to other areas and patient groups, where different findings could emerge. For example, in areas where the population is younger and self-perceived health status is poorer.

It is interesting to consider how the results link to the existing literature. Age is identified in the literature as influencing views on services, with older people potentially more resistant to skill mix (Hull and Hull, 1984; Grogan *et al*, 1995; Jenkins-Clarke *et al*, 1997; Department of Health, 1999; Howie *et al*, 1999; Larsson, 1999; Forum for Teamworking in Primary Healthcare, 2000; Crow *et al*, 2002; Department of Health, 2002). However, in this study there were few differences in views by age. The literature also suggests that access is most important to younger people (Department of Health, 1999; Department of Health, 2002). In this study no differences by age were found, with access emerging as important for all. Continuity was also important to all, although significantly more for older people; this is supported by the literature (Baker and Streatfield, 1995; Jenkins-Clarke *et al*, 1997).

Those who work have been found to be least satisfied with access (Department of Health, 1999; Department of Health, 2002), as they are

working at the same time that most surgeries are open, and as a result may use community pharmacies or walk-in centres (Hassell *et al*, 1997; Chapple *et al*, 2001). In this study, those who worked felt it was important to see anyone quickly and that appointments at the weekend, early in the morning and late at night would be useful. In the study, gender did not seem to influence views on skill mix. This is contrary to findings from the literature which shows that women are more likely to favour continuity of care which could be hampered by skill mix (Gray, 1982; Baker and Streatfield, 1995; Jenkins Clarke *et al*, 1997; Phillips and Brooks, 1998; Department of Health, 1999; Department of Health, 2002). There were different views in the study on the acceptability of the delegation of a service from one type of professional to another, depending on whether a person had used a particular service. So, the finding from the literature that patient preferences can be affected by knowledge and experience of services is true, in certain cases (Mangen and Griffith, 1982; Bond and Thomas, 1992; Chambers, 1998; NHS Executive, 1999).

5.7.2 Influences on professional views

Job role emerged as the factor which significantly influenced professional views. Job role influenced views on the potential for delegation, and team effectiveness. It also influenced views on concern about loss of nursing skills, and accountability. Views on the desirability of integration with social services, the effect of GP workload on skill mix, and whether skill mix was driven by cost savings were also influenced by job type. The extent to which professionals had been supported to take on new roles, and had been

provided with training to take on new roles also varied by job role. Professional views on GP attitudes and quality of care varied by job type.

Age was linked to views on delegation to nurses and level of interest in the NP role. Views on the importance of improved access to services were influenced by whether or not this had occurred. Attached nurses' views differed on teamwork, loss of nursing skills, and costs as a driver for change. No links could be found between views on skill mix and gender, trainer status, being an MRCGP, or evidence of CPD.

The profile of the professionals involved is not considered to be atypical. The highest proportions of professionals involved were GPs and practice nurses. Nearly-three quarters of all those involved were female and aged between 35-54 years; most had been qualified for more than five years. Of the GPs, over half were MRCGPs, and 40% were trainers. Of the nurses, most were based at the surgery, and over two-thirds had undertaken a post-registration training course in the last year. In this study, GP trainer status, being an MRCPG, years since qualification, and age did not influence GP views on skill mix. This is contrary to findings from the literature that GPs most in favour of extended nursing roles, an important part of skill mix, were more likely to be newly qualified, MRCGPs and trainers, and that younger doctors were more likely to be positive about delegation (Miller and Beckett, 1980; Robinson *et al*, 1993).

5.7.3 Influences on management views

Quantitative research which can show where findings are statistically significant in their association or difference was not undertaken with the managers in the study. The focus was instead on in-depth interviews, so consideration of factors which influence views cannot be stated as statistically significant or not in this section.

When considering the profile of the participants, the majority interviewed had public sector backgrounds, which is suggested as being typical in the literature. Peckham and Exworthy (2003) note that few general management appointments in the NHS have been from the private sector, and many of those who did join in the 1980s left because of a culture clash of private/public values. The average length of time in NHS management for those interviewed was 7.7 years, so all were in post since the inception of 'managerialism' in the NHS. It is likely therefore that those interviewed can be seen as part of 'managerialism', with a focus on the effective and efficient use of resources, and their views would reflect this.

Studies have shown that the level of a manager in the organisation can influence their views. Senior managers tend to adopt a directive style which challenges clinicians to deliver the political agenda, whereas middle managers are more inclined to work with the prevailing cultures of general practice (Marshall *et al*, 2003). It was difficult to ascertain a particular style of management in the study, with evidence of both directive and facilitative

styles emerging. However, there was some evidence that those at the lower levels of the policy process chain – in general practice and in PCTs – did seem more inclined to try to work with the prevailing culture of general practice. For example, it was acknowledged that the roles of PCTs included supporting and facilitating developments such as skill mix. Those from the higher levels, at SHA and Department level, were more aware of the need to meet targets and political drivers. This included the role of skill mix in meeting secondary care targets, and the links between skill mix and contractual changes. However, these distinctions between directive and facilitative styles and policy process levels were not absolutely clear.

Figure 5-5: Influences on views on skill mix in primary care: how the findings of this study relate to the existing literature

<i>Findings from the study supported by the literature:</i>
<ul style="list-style-type: none"> ▪ Older patients value continuity ▪ Patients who work are dissatisfied with access ▪ Patient experience and use of services influences views on the delegation of some services ▪ Most NHS managers have public sector backgrounds
<i>Findings from the study not supported by the literature:</i>
<ul style="list-style-type: none"> ▪ Patients views are not greatly influenced by age ▪ Patients views are not influenced by gender ▪ Patients views are not influenced by health status ▪ GPs views are not influenced by years since qualification, MRCGP, training status or age ▪ Middle and senior management do not have different 'styles'
<i>Findings from this study not found in the literature:</i>
<ul style="list-style-type: none"> ▪ The influence of job role on views ▪ The influence of age on professional views

5.8 Summary

This chapter has analysed and discussed the data collected throughout the study. It has analysed the patient, professional and management perspectives emerging from the research and considered the findings alongside the existing literature. The extent to which views on key issues converge and diverge are considered, and this analysis is presented in a model. The model shows that shared key issues between all three groups included support for delegation from GPs to nurses, the importance of training and education in skill mix, the impact of workload on skill mix, and concerns over the capacity of GP premises.

The definitions of skill mix and primary care stated at the start of the study have been revisited to ascertain to what extent they remain valid as a result of this study. Patients understanding of primary care tended to focus on GPs and their immediate teams – primary medical care. Professionals and management increasingly identified primary care as wider than this, encompassing other health and social care providers – primary health care.

The influences on patient, professional and management views have been considered. Influences on patient views included the use of services, working status and age. Influences on professional views centred on job role. Management influences were linked to their backgrounds/experience, and length of service. Having thoroughly analysed and discussed the results, the next chapter will draw conclusions about the research as a whole.

6 Conclusions

6.1 Introduction

Chapter 5 analysed and discussed what this research adds to the existing body of knowledge on patient, professional and management perspectives on skill mix in primary care. This chapter takes that one step further, to draw conclusions about the aim and objectives and the unique contributions of the research. It also considers implications for policy and practice. Suggestions for further research are given, to build on the findings from this study.

6.2 Conclusions about the research aim

The aim of this research was to contribute to the understanding of skill mix in primary care by studying the perspectives of patients, professionals and management. It is considered that this research is unique in that it has offered insights into skill mix in primary care from these three perspectives. The study also covers interpretation of the term skill mix, service issues, drivers for change, issues and variables that affect skill mix, and views on the professionals involved in skill mix. The emergent themes and issues are identified for each group, and also shared values. This was done by taking a part exploratory approach, to look for new patterns, ideas and theories, and a part analytical approach to discover and measure relationships between phenomena.

In the introduction chapter 1, it was noted by the National Primary Care Research and Development Centre (Halliwell *et al*, undated publication) that although skill mix should be governed by research based evidence on how skills may be best distributed amongst professionals, there is a dearth of research in this area. Many changes in skill mix have yet to be adequately researched. Halliwell *et al* go on to note that the existing evidence is held within the specialist literature of different professional groups, making it difficult to form a coherent overview. It is thought that this research helps to address this by forming a coherent overview of the views of recipients of services (patients), providers (professionals), and shapers and resourcers (management). In terms of professionals' views, it also allows for a coherent overview of the different primary care professionals' perspectives to be shown, with areas of difference highlighted where they occur.

Another important contribution is that the research adds to knowledge on patients' views on skill mix in primary care. Some aspects of skill mix, including new roles for assistants, the development of GP specialists and other professionals who could be based at the surgery, have not been studied from patients' perspectives before. The research which did exist was predominantly linked to their preferences for various services or views on different professionals. The study has also contributed to scarce literature on management perspectives on service developments.

6.3 *Patient, professional and management opinions on skill mix in primary care, and the extent to which they converge*

The first objective of the research was to identify the opinions of patients, professionals and management on skill mix in primary care. It is thought that the views of each stakeholder group have been thoroughly considered, and the concepts of both delegation and diversification covered. The second objective focused on assessing the opinions together to identify areas of convergence and divergence between the groups. Shared key issues could thus be identified, as well as those unique to each group. A model was developed to show this and was included in chapter 5. It is considered that this objective has also been met.

Patients in the study seemed most aware of delegation in skill mix, from GPs to nurses, and most had experienced this. They were less familiar and comfortable with diversification, particularly the newer enhanced roles for GPs and the inclusion of other services at the practice. Despite awareness and experience of GP to nurse delegation, some concerns were still expressed, suggesting that information, particularly on the training and experience of staff, is necessary. There were areas where patients were in general agreement to tasks being delegated, including chronic disease management, repeat prescribing, and blood tests and that these are useful first priorities for delegation if this has not already occurred. Further work may also be necessary on explaining the advantages of skill mix to patients; for example,

improved access was important in this study. Care should be taken that continuity is not unduly compromised however as this was also important.

Professionals were largely supportive of all aspects of skill mix, but particularly for different types of professional, such as social workers and CAB workers, joining the team. This can be linked to their desire for improved patient choice. Skill mix was thought to have been largely driven by GP workload although there were concerns about whether delegation would improve workload. Opportunities for staff development, particularly for GPs and nurses, were important although there was some concern about the plethora of new nursing roles being confusing, and nurses being given mundane work through skill mix. Professionals thought that skill mix could help to better meet patients' needs by making the best use of skills in the team and many thought this had occurred. However, other advantages, including improved access, more time with patients, and job satisfaction had not occurred. It may be that more effort is needed to focus on these potential advantages to maximise the opportunities from changes in skill mix. Difficulties limiting skill mix development included increasing workload, a perceived shortage of money, lack of space at the practice, and difficulties accessing training. These will all need action to ensure skill mix can continue to develop. Concerns centred on GPs and nurses remaining accountable for delegated tasks, competencies, and time to implement skill mix. Overlapping roles were noted as a problem and a number of tasks, including care co-ordination and health promotion, were highlighted as core to a number of professionals' roles. There is clearly potential for overlap and confusion if

respective contributions are not clearly discussed and considered. GPs were keen to delegate, or had already delegated, a wide range of tasks such as chronic disease management to nurses. There were some areas they would not delegate though, such as skin complaints, but the availability of a wider range of staff may mean they could delegate a wider range of tasks to others. However, difficulties with different employers and funding streams may inhibit this.

Management perspectives on skill mix focused on making the best use of resources and time, to manage an increasing workload. This is in keeping with one of the key roles for general management in the NHS, to achieve an effective and efficient use of resources. Skill mix was not particularly attributed to cost cutting in the study, rather efficiency. Both delegation and diversification were important; diversification was seen as an opportunity to move away from traditional models of working, to encompass greater specialisation and role enhancement for nurses. Some concerns about quality, if training and support were insufficient, were noted. Difficulties around recruitment were identified and contractual changes were thought to have had a major impact on skill mix, encouraging the greater use of nurses in particular. However, it was considered that the model of the GP as an independent contractor was too traditional and a limit to future developments. Skill mix was considered to better meet patient needs and achieve targets, and as such was thought to be an important underlying, although not top line, consideration for PCT, SHA and Department of Health management. It has been noted that senior level management, at national and regional level, may

be subject to politics in their views rather than expertise or adding to knowledge (Hull *et al*, 1999). However, it has still been useful to open up these levels to discussion, whilst understanding that they may bring a political dimension to the process.

Leading on from the consideration of the three stakeholders' views, the second objective of the research was to understand whether there was any convergence in views, the extent of any divergence and to develop a model to show this. The model to display this was introduced in chapter 5, in figure 5.4. It is considered that the model gives a coherent overview of the key issues for each stakeholder, and shared values between the three groups. Shared issues between all three groups focused on support for delegation from GPs to nurses, the importance of training and education in skill mix, the impact of workload on skill mix, and concerns over the capacity of GP premises. These four issues may therefore be taken to be of importance in developing and understanding skill mix. As they emerged as important for the three stakeholders, it may be useful for further research on each issue to be undertaken with the three groups. Between the groups, there was convergence in views between patients and professionals, and management and professionals. The focus for key issues shared by patients and professionals were service issues. These included the importance of GP workload, patient choice, nurses taking on asthma care and seeing patients with coughs/colds, physiotherapists, podiatrists and dieticians at the practice, and GPSIs in dermatology and rheumatology. The key issues shared by management and professionals were linked to 'policy' and organisational

factors. They included support for the integration of health and social care, greater diversification, meeting patient needs, improving teamwork, and the impact of recruitment difficulties. There were relatively few areas of common ground between management and patients, with the focus on access and continuity. Patients thought that these were important and wanted to see access improve and continuity maintained. Management were most interested in meeting access targets and maintaining continuity to meet other ends, for example reducing emergency admissions to hospital.

In terms of interpreting the model, it is important to remember the profile of the participants involved in the research. The patients were exclusively from Torbay GP practices. The professionals were primary care professionals working in Torbay – GPs, nurse practitioners, practice nurses, health visitors, district nurses and health care assistants. The management involved were few in number and restricted to those involved in primary care development in Torbay GP practices, Torbay PCT, South West Peninsula Strategic Health Authority and the Department of Health. The impact of this will be discussed later in the chapter.

6.4 Revised definitions of 'skill mix' and 'primary care'

An objective of the research was to test the existing definitions of 'primary care' and 'skill mix' with the three stakeholder groups as it was considered that they could be interpreted and understood in different ways. The findings from the study showed that this was the case. The different definitions

applied to the terms are summarised in a figure at the end of the section.

Differences in understanding primary care emerged. Patients understood primary care in a quite restrictive way, focusing on GPs and their immediate practice team. For some patients, primary care was almost exclusively focused on the GP! Patient understanding was therefore restricted to primary medical care. Professionals and management had a much wider view of the scope of primary care, including a wider range of health and social care professionals and services. Their understanding was therefore closer aligned to primary health care. Therefore, both definitions of primary care offered by Peckham and Exworthy (2003), which were discussed in the introduction, can be seen to be valid. Peckham and Exworthy note that primary medical care has developed into primary health care, although it would appear that patients are not yet interpreting it this way.

Understanding and definitions of skill mix differed. Patient understanding was almost exclusively focused on delegation, from GPs to practice nurses. The newer areas of delegation, such as between nursing grades, were less well understood. Professionals and management also understood skill mix in terms of delegation, with management increasingly focusing on the cost effectiveness of this. Diversification was not well understood or even particularly welcomed by patients. However, for professionals this was of specific importance and management were also supportive of this. Professionals were most interested in different professionals joining the team. Management were more supportive of existing professionals acquiring new

skills. The definition of skill mix offered by Halliwell *et al*, (undated publication) which was discussed in the introduction and incorporates both aspects of delegation and diversification can therefore be seen to be valid. However, different stakeholders understand and favour particular aspects of the definition.

The different interpretations of skill mix and primary care are summarised in figure 6.1.

Figure 6-1: Patient, professional and management definitions of 'primary care' and 'skill mix'

<i>Stakeholder</i>	<i>Interpretation of primary care</i>	<i>Interpretation of skill mix</i>
Patients	Primary medical care – GPs and their immediate team	<ul style="list-style-type: none"> ▪ Delegation from GPs to nurses
Professionals	Primary health care – GPs and their immediate teams, and a range of health and social care professionals at the practice	<ul style="list-style-type: none"> ▪ Delegation across the team ▪ Diversification, with new members joining the team
Management	Primary health care – GPs and their immediate teams, and a range of health and social care professionals at the practice	<ul style="list-style-type: none"> ▪ Delegation across the team, to improve efficiency ▪ Diversification, with existing team members taking on new skills

6.5 Understanding what influences views on skill mix in primary care

An objective of the research was to understand what influences views on skill mix in primary care for patients, professionals and management. It is considered that understanding in this area has improved as a result of the study. However, there were fewer influences on patient and professional views than expected. The main influence on patient views seemed to be the

use of services. The main influence on professional views appeared to be job type. One of the expectations was that patient views would differ between those registered with 'skill mix' and 'traditional' practices but this was not the case. The management research was qualitative and therefore inferences on views can be made but these cannot be considered statistically significant. This suggests that the study has contributed to understanding, but further research in this area may be necessary.

6.5.1 Influences on patient views

This study challenges a finding from the literature that age influences views on health services, and that older and younger people require different services. The only differences found were that older people were more resistant to delegation to pharmacists and thought that continuity was important. Younger people were found to be more in favour of a range of health and social care professionals at the practice. The working status of patients was influential in the study, particularly with regard to access. Those who were working considered that it was important to be seen quickly, and would see anyone to do so. They also thought that appointments should be offered outside working hours including mornings, evenings and weekends. Gender has been linked to differing views on services, but it did not influence patient views on skill mix or services in this study. There was some evidence that the use of services influenced views on whether they could be transferred. Those using repeat prescription and asthma services were more likely to agree that they could be transferred from GPs to nurses. Those who

had had blood pressure checks, urine tests, ECG tests and weight checks were more likely to agree they could be transferred from nurses to assistants. Those who had used ophthalmology and echocardiogram services were more likely to agree they could be transferred from hospital to GP specialists. There was also a positive association between rank and the use of counselling, social work, CAB, chiropody and dietetic services.

The findings on influences from the study need to be considered in the context of the profile of the participants involved. All the patients involved in the study were from one PCT in the south west of England: Torbay. Over half were female, with a relatively high proportion aged 60 years and over. Most described their health as good and over half were not working. If research was undertaken in areas with a different population profile, other influences may well emerge. For example, views and preferences of younger people and those in relatively poor health are likely to be more influential in areas with higher proportions. Other factors, such as ethnicity, may also be relevant. However, it is thought that this study has allowed for the influence of gender, working status, and experience of services to be adequately tested.

The thematic framework developed at the end of the literature review in chapter 2, showing patient characteristics, service factors and skill mix implications, has been modified as a result of this research. In figure 6.2a, the original findings from the literature review which are still valid after the study remain in plain text, those which are disputed in the study are struck through,

and additions to the model following the study are shown in italics. Figure 6.2b shows the revised model.

Figure 6-2a: Thematic framework on patient views on skill mix, derived from the literature and revised following the study

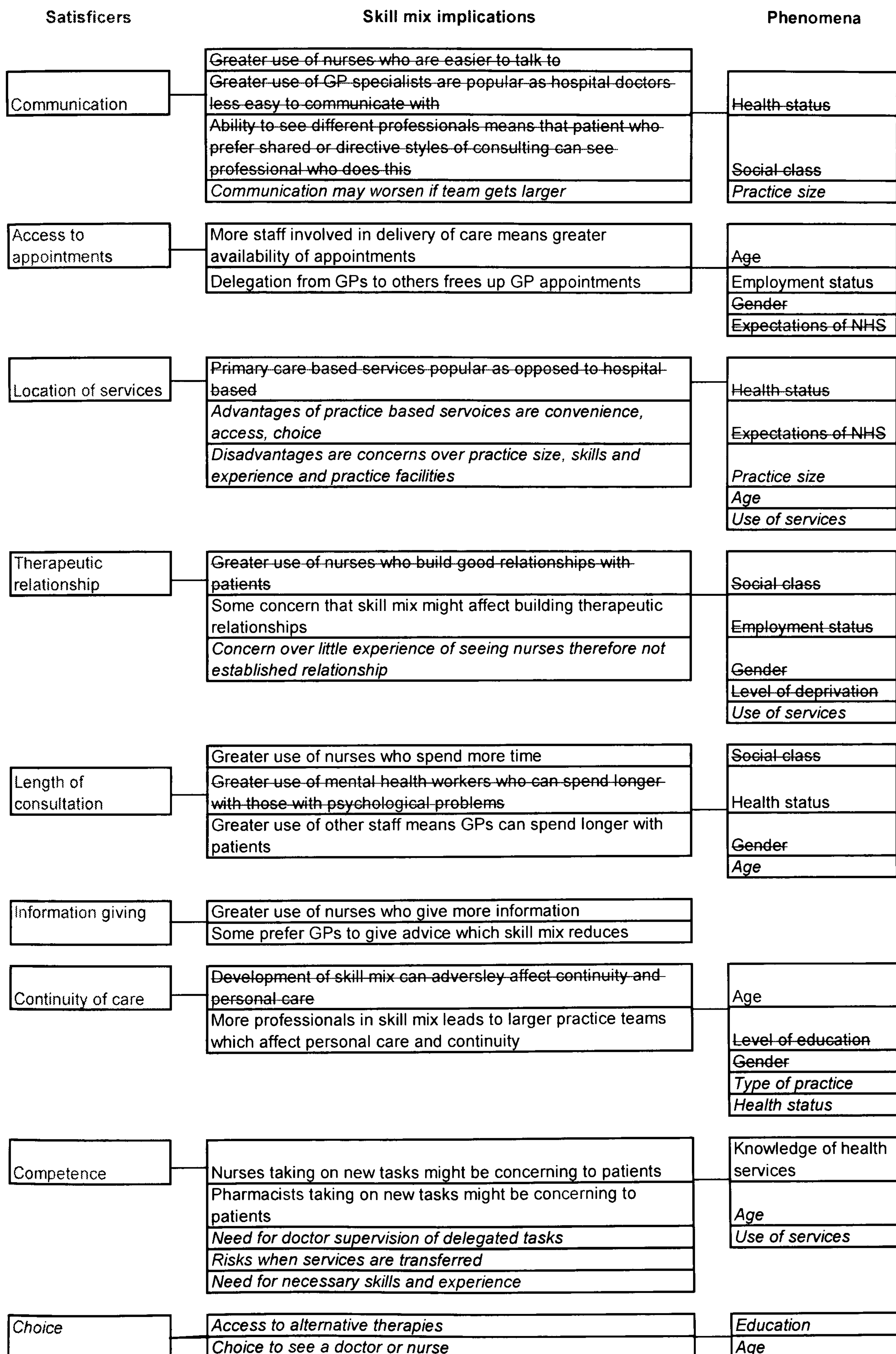
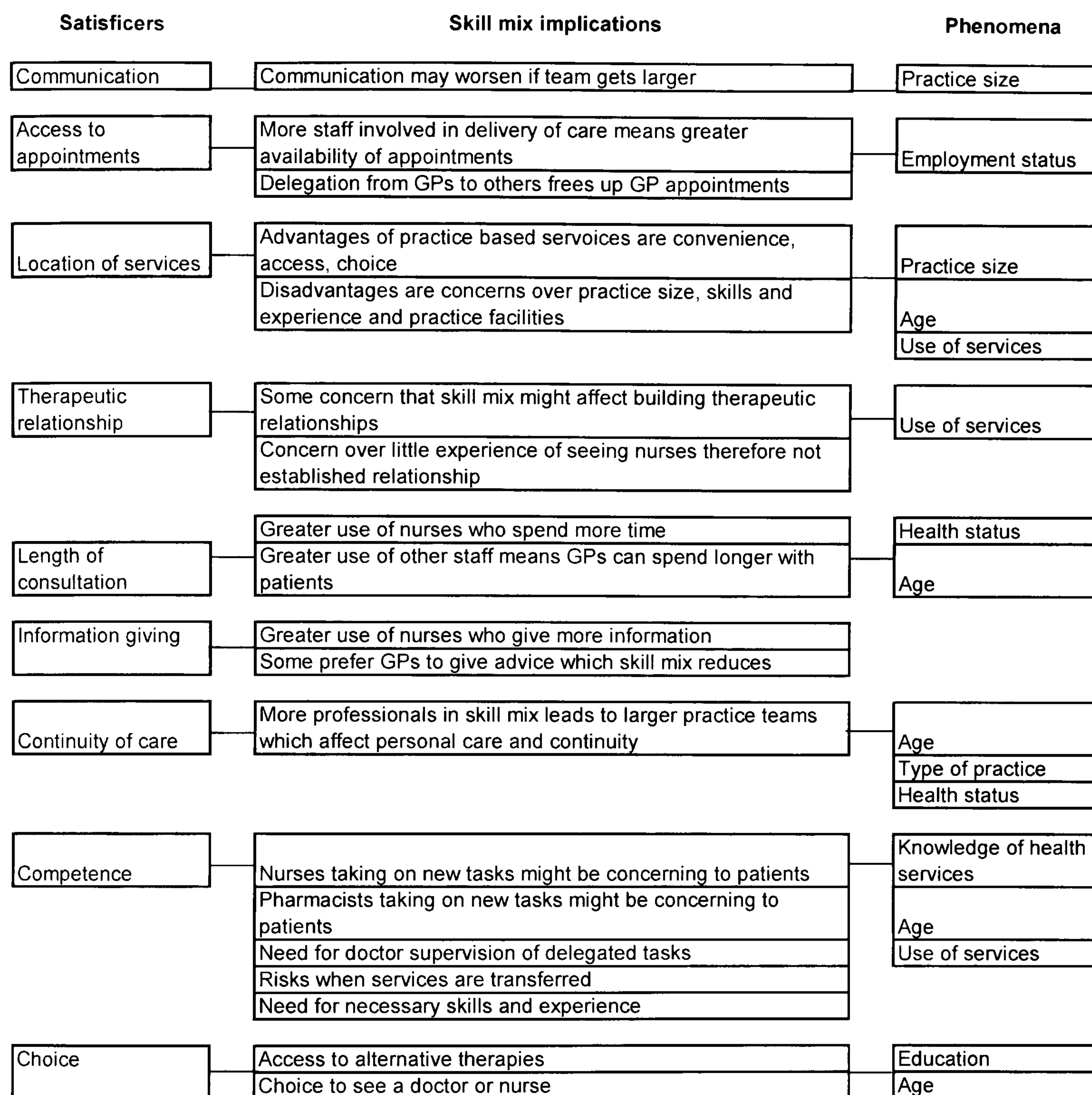


Figure 6-2b: Thematic framework on patient views on skill mix, derived from the literature and revised following the study



One of the most surprising findings in the study was that experience of skill mix – in terms of the type of practice a patient was registered with - did not seem to influence patient views. This was disappointing as it meant that comparison, which is important in case studies, could not be explored. It is unclear from the study whether there was genuinely little difference in views between those from skill mix and traditional practices, or whether the method

for categorising the practices was unsuitable. Six questions were asked of the practices in Torbay to try and determine their level of skill mix. To assess levels of delegation, practices were asked whether there was a HCA and a NP at the practice and whether there was direct access for consultation with professionals other than a GP. To ascertain levels of diversification, practices were asked whether a counsellor or physiotherapist was based at the practice and whether any of the GPs were approved to provide secondary care services in primary care. It may be that six questions to determine levels of skill mix were insufficient. More detailed questions relating to the extent of delegation to nurses and whether a wider range of professionals were at the practice may have been necessary. At the time, the decision was made to keep the questions simple and relatively few in number to encourage practices to respond. Of the practices who responded, 35% answered yes to three questions which was the 'cut-off' point for being a 'traditional' practice. Given that the questions were posed in 2001 it now seems likely that as the research was taking place, these practices were developing their skill mix and so some may have changed category. It would have been useful to check the status of the practices involved prior to the various stages of the study commencing to see if changes had been made. On the basis that no conclusions can be drawn on whether there are differences in views between patients of traditional and skill mix practices, this remains an area where further study is necessary.

6.5.2 Influences on professional views

In terms of professional views, the literature identified that GP trainer status, membership of the Royal College, years since qualification and age were influences on GPs' views on skill mix. However, there was no link between these factors and views on skill mix in this study. The age of nurses did have some influence on views, with those aged 16-24 years more likely to disagree with delegation from GPs to nurses, and nurses aged 16-44 years were interested in the nurse practitioner role. The main influence on views was job type; the key differences between the professional groups are summarised in figure 6.3. It is considered that this study has provided some useful indications as to what could influence professional views and the key issues of importance for different primary care professionals.

Figure 6-3: Influences on professional views: job role and key issues for skill mix

<p>GPs</p>	<ul style="list-style-type: none"> ▪ Less concerned about loss of quality ▪ Doctors being able to concentrate on more complex cases important in skill mix
<p>Nurse Practitioners</p>	<ul style="list-style-type: none"> ▪ Supportive of delegation from GPs to nurses ▪ Have been supported to take on new roles ▪ Have received training for new responsibilities ▪ Have access to the right information ▪ Interested in the NP role ▪ GP attitudes a barrier to skill mix
<p>Practice nurses</p>	<ul style="list-style-type: none"> ▪ Concerned about the loss of nursing skills ▪ Less concerned about loss of quality ▪ Have received support to take on new roles
<p>Attached nurses – DNs & HVs</p>	<ul style="list-style-type: none"> ▪ Less likely to feel part of the team ▪ Concerned about loss of nursing skills ▪ Concerned that skill mix is driven by a need to cut costs
<p>Health care assistants</p>	<ul style="list-style-type: none"> ▪ Less likely to feel part of the team ▪ Concerned about loss of nursing skills ▪ Have been supported to take on new roles

6.5.3 Influences on management views

Quantitative research was not undertaken with this group. Therefore, it is not possible to show where findings are statistically significant in their association or difference. Further research would be necessary to establish the extent to which the influences identified in the interviews affect management views. It is thought that it would be useful to further consider the effect of professional/management background, length of service, the level of manager in the organisation, and the position in the policy process.

6.6 Confirmation of existing work on skill mix in primary care

One of the objectives of the study was to analyse the existing literature and identify the key issues to be studied. This was undertaken in chapter 2, the literature review. Considering the patient literature reviewed, taken as a whole and analysed, some inferences could be made for patient preferences relating to skill mix at the time (this analysis of the literature was published by Branson *et al*, 2003).

This objective was also designed to allow for the research to test the current evidence base, with a view to confirming or disproving existing work. This was predominantly undertaken in chapter 5, where the results are analysed and discussed in the context of the existing literature. A number of figures are included in chapter 5 which in each section summarise findings from the literature supported by the study, those which the study disputes, and new

findings not covered by existing work. To enhance this objective, it was further decided to develop a model to show how the study has added to or altered existing work, and this is presented at the end of this section.

A number of figures devised to summarise the current work, which were included in the literature review chapter 2, can be revised in light of the study. One of the figures showed the links between patient phenomena, satisfiers and service implications for skill mix and has been amended as a result of the study. These were presented earlier in this chapter – figures 6.2a and 6.2b. The other figures from the literature review are reconsidered in this section, in light of the study. The factors which influence group effectiveness and skill mix implications are reconsidered (figures 6.4a and 6.4b). The analysis of the main drivers for skill mix in primary care, the ‘PEST’ analysis, is revised in the light of the study (figures 6.5a and 6.5b). Finally, the emerging model for the body of knowledge relating to skill mix in primary care, from patient, professional and management perspectives, is revised as a result of the study (figures 6.6a and 6.6b). It is thought that through the thorough consideration of the literature in chapter 2, a consideration of the findings in the context of the existing literature in chapter 5, and the developments of the models in this section, the objective of testing the current evidence base has been achieved.

The first figure to be reconsidered is that which shows the factors which influence group effectiveness, and skill mix implications. This figure was devised in the literature review to help summarise and explain the findings which related to the interpretation of skill mix in primary care, predominantly

from the professional perspective. Figure 6.4a shows the original findings from the literature review; those which are still valid after the study remain in plain text. Those which are disputed in the study are struck through. Additions are shown in italics.

Figure 6-4a: Factors affecting group effectiveness and interpretation of the term 'skill mix', derived from the literature and revised following the study

GROUP EFFECTIVENESS	PRIMARY CARE CONTEXT	POSSIBLE SKILL MIX IMPLICATIONS
INPUT		
<i>Composition of group</i>		
Size	Primary care teams getting larger	More services available, greater specialisation, increasing complexity, <i>communication problems</i>
Homogeneity/heterogeneity	Primary care teams composed of people from diverse professional backgrounds (heterogeneous); demographic homogeneity, similarity of age, sex and educational levels, will differ	Creative decisions for skill mix from heterogenous groups; demographic homogeneity predicts cohesiveness and group stability but not effectiveness
Knowledge/skills	High levels of knowledge and skills in primary care teams which include doctors and nurses, qualified professionals and semi-professionals; <i>roles shared between a number of professionals</i>	For some further desire to acquire knowledge/skills - GPs with special interests, nurse practitioners; <i>confusion over clarity of contribution - who does what?</i>
Competencies	Some concerns expressed about nurses and assistants competencies to take on new roles	Limits to delegation if concerned about own or others competencies, <i>possible loss of quality</i>
<i>Organisational context</i>		
Availability of resources - human, financial and physical	Concerns about recruitment of GPs, money to train and employ nurse practitioners, <i>limited resources in primary care, capacity of GP premises</i>	Recruitment difficulties of GPs will drive some skill mixes, perceived shortage of money inhibit development of NPs, <i>skill mix makes more efficient use of resources, skill mix could be more expensive in some cases, recruitment difficulties limit skill mix, space limits in premises restrict skill mix developments</i>
Task	First contact, continuous, comprehensive, and co-ordinated care provided to populations undifferentiated by gender, disease or organ system; <i>meeting wider health and social care needs for a population including some specialist health services</i>	Complexity of task outside the gift of one type of professional, <i>preference for teamwork over autonomy</i>
Education and training	Joint approach advocated, general lack of clarity over others training, <i>lack of training opportunities</i>	Greater understanding of training of others needed to appreciate contribution and willingness to delegate, <i>lack of training limits nurse role development</i>
Policies	Contrary policies/procedures between GP employed and other team members, <i>nurse prescribing, new types of contract</i>	Barrier to some developments, <i>nurse prescribing encourages delegation to nurses, GMS/PMS contracts encourage skill mix</i>
GROUP PROCESSES		
Leadership	GP as leader, employer, owner of building	Powerful position to implement skill mix as GP led, <i>attitudes can be a barrier</i>
Information exchange	Meetings	Can be time consuming, poor communication between professionals in skill mix bad for services
Participation	Attached staff not as involved in primary care team	Role and contribution of attached staff not maximised through skill mix
Norms/rules	Different employers of team members	Barrier to some developments, <i>little involvement of attached staff in skill mix</i>
OUTPUTS		
Goals	Lack of clear shared goals	Lack of buy in to skill mix changes
Productivity	Workload concerns	GPs or nurses unable to take on more work through skill mix, <i>greater delegation to help manage workload</i>
Innovation	New roles	GPSIs, new nursing roles
Job satisfaction	Low morale, some get more satisfaction from delegated tasks though; <i>morale good</i>	Nursing more interesting as tasks delegated to them, GP take on more interesting special areas

In the 'group composition' section, the figure shows that the main change is that homogeneity and heterogeneity were not issues in this study. New findings from the study included communication difficulties, shared roles and potential for role overlap, concerns over competencies, and a possible loss of quality. A number of new findings emerged in the 'organisational context' section of the figure. Resource issues identified included limited resources in primary care, that skill mix could be more expensive but could also make more efficient use of resources, and difficulties with premises limitations. GP recruitment difficulties driving skill mix did not emerge as an issue in the study. 'Task' issues included meeting patients' health and social care needs, specialists working in primary care, and the preference for teamwork over autonomy. 'Training' issues included lack of opportunities limiting the development of nurse roles. 'Policy' issues included nurse prescribing and new primary care contracts.

In the 'group processes' section, the GP role as the team leader was seen as important, but their role as employers and owners of buildings were not mentioned in the study. GP attitudes were noted as a difficulty. It was also found that attached staff were not particularly involved in skill mix. In the 'output' section, productivity was linked to delegation, which helped to manage workload. Low morale was not evident in the study; indeed, job satisfaction seemed good. Figure 6.4b shows the revised model.

Figure 6-4b: Factors affecting group effectiveness and interpretation of the term 'skill mix', derived from the literature and revised following the study

<i>GROUP EFFECTIVENESS</i>	<i>PRIMARY CARE CONTEXT</i>	<i>POSSIBLE SKILL MIX IMPLICATIONS</i>
INPUT		
<i>Composition of group</i>		
Size	Primary care teams getting larger	More services available, greater specialisation, increasing complexity, communication problems
Knowledge/skills	High levels of knowledge and skills in primary care teams which include doctors and nurses, qualified professionals and semi-professionals; roles shared between a number of professionals	For some further desire to acquire knowledge/skills - GPs with special interests, nurse practitioners; confusion over clarity of contribution - who does what?
Competencies	Some concerns expressed about nurses and assistants competencies to take on new roles	Limits to delegation if concerned about own or others competencies, possible loss of quality
<i>Organisational context</i>		
Availability of resources - human, financial and physical	Concerns about recruitment of GPs, money to train and employ nurse practitioners, limited resources in primary care, capacity of GP premises	Perceived shortage of money inhibit development of NPs, skill mix makes more efficient use of resources, skill mix could be more expensive in some cases, recruitment difficulties limit skill mix
Task	First contact, continuous, comprehensive, and co-ordinated care provided to populations undifferentiated by gender, disease or organ system; meeting wider health and social care needs for a population including some specialist health services	Complexity of task outside the gift of one type of professional, preference for teamwork over autonomy
Education and training	Joint approach advocated, general lack of clarity over others training, lack of training opportunities	Greater understanding of training of others needed to appreciate contribution and willingness to delegate, lack of training limits nurse role development
Policies	Contrary policies/procedures between GP employed and other team members, nurse prescribing, new types of contract	Barrier to some developments, nurse prescribing encourages delegation to nurses, GMS/PMS contracts encourage skill mix
GROUP PROCESSES		
<i>Leadership</i>	GP as leader	Powerful position to implement skill mix as GP led, attitudes can be a barrier
<i>Information exchange</i>	Meetings	Can be time consuming, poor communication between professionals in skill mix bad for services
<i>Participation</i>	Attached staff not as involved in primary care team	Role and contribution of attached staff not maximised through skill mix
<i>Norms/rules</i>	Different employers of team members	Barrier to some developments, little involvement of attached staff in skill mix
OUTPUTS		
<i>Goals</i>	Lack of clear shared goals	Lack of buy in to skill mix changes
<i>Productivity</i>	Workload concerns	GPs or nurses unable to take on more work through skill mix, greater delegation to help manage workload
<i>Innovation</i>	New roles	GPSIs, new nursing roles
<i>Job satisfaction</i>	Morale good	Nursing more interesting as tasks delegated to them, GP take on more interesting special areas

A number of findings from the literature review related to environmental factors, that is political, legal, socio-cultural, technological and economic factors which influenced skill mix. To summarise and explain this element of the literature, a 'PEST' analysis showing the environmental factors and skill mix implications was developed. Figure 6.5a shows the original findings from the literature review; those which are still valid after the study remain in plain text. Those which are disputed in the study are struck through. Additions are shown in italics.

Figure 6-5a: PEST analysis: Environmental factors influencing skill mix developments, derived from the literature and revised following the study

Environmental factors	Skill mix implications
<i>Political/legal</i>	
Government policies on secondary services into primary care	Diversification, GPSIs, enhanced services, <i>delegation to manage increasing workload</i>
Target for access to GPs and primary care professionals	Greater use of nurses and assistants to increase access to primary care, <i>better meet patient needs</i>
Primary care led NHS	Increasing workload in primary care, skill mix to help manage
Rules on use of staff budgets <i>Limited practice staff budgets</i>	Limits involvement of a wide range of staff in primary care
Independent contractor status	GPs employ their own staff, other primary care staff employed by NHS, <i>barrier to skill mix developments</i>
<i>Socio-cultural</i>	
Patient expectations	Communications with professionals, continuity, length of consultation, access, local services
Specialisation	GPSIs, more disciplines involved in primary care, <i>possible loss of the GP generalist</i>
Skill developments in GPs and nurses	GPSIs, nurse practitioners, enhanced practice nurses, <i>health care assistants, nursery nurses</i>
Changing roles	Diversification and delegation, <i>potential for overlap and confusion</i>
<i>Technological</i>	
Diagnostic/investigative work able to be done in practices	More services from secondary care to primary care
<i>Economic</i>	
Availability of skills and staff	Staffing shortages and difficulties both driver and barrier for skill mix
Finite resources	Skill mix helps make best use of finite resources, <i>can limit developments</i>
Cost of skilled labour	Nurse practitioners and higher graded practice nurses in skill mix more expensive, <i>HCA's cheaper and more popular</i>
Spend on premises	Not enough space in practice premises, <i>will limit skill mix, facilities and car parking</i>
Size of practice	Larger teams, harder to communicate around the team, <i>more professionals based at the practice improves choice</i>

In the 'political/legal' section, the main changes were that delegation is helping to manage an increasing workload, that skill mix can better meet patients' needs, and that the independent contractor status can be a barrier to skill mix. The rules on staff budgets limiting development was not an issue, but limited budgets were.

In the 'socio-cultural' section, the main changes were that patient expectations did not include communications with professionals, length of consultation or local services – access and continuity were most important. There was also some concern over the loss of the GP generalist, as the GP specialist develops. Role developments included HCAs and community nursery nurses. Changing roles brought with it the potential for overlap and confusion. No 'technological' issues were raised in the study.

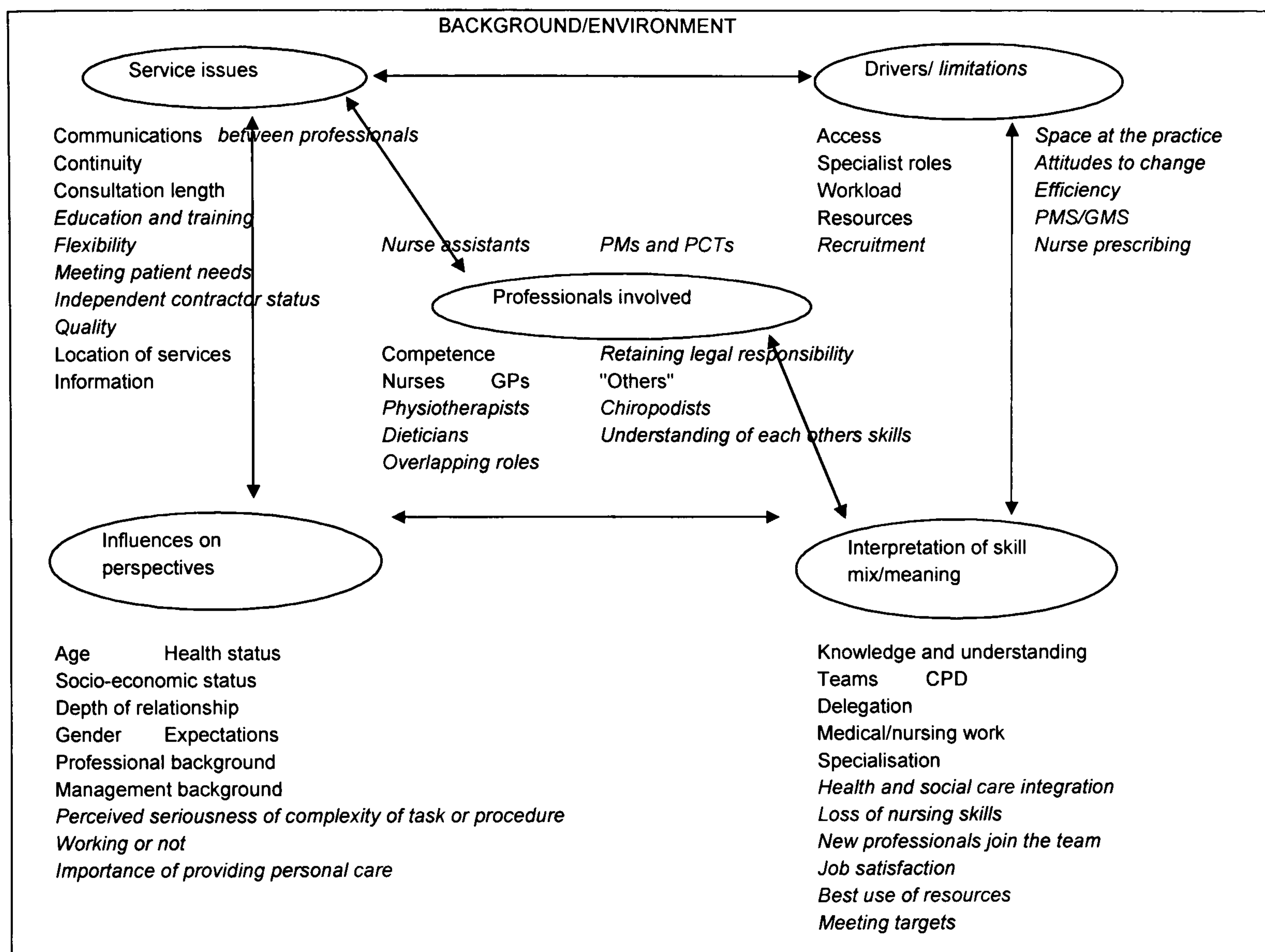
In the 'economic' section, it was noted that finite resources could limit development and that HCAs were relatively cheap in terms of labour costs, and therefore popular. It was also identified that practice facilities could limit skill mix and more professionals in the primary care team could improve choice. Figure 6.5b shows the revised model.

Figure 6-5b: PEST analysis: Environmental factors influencing skill mix developments, derived from the literature and revised following the study

Environmental factors	Skill mix implications
<i>Political/legal</i>	
Government policies on secondary services into primary care	Diversification, GPSIs, enhanced services, delegation to manage increasing workload
Target for access to GPs and primary care professionals	Greater use of nurses and assistants to increase access to primary care, better meet patient needs
Primary care led NHS	Increasing workload in primary care, skill mix to help manage
Limited practice staff budgets	Limits involvement of a wide range of staff in primary care
Independent contractor status	GPs employ their own staff, other primary care staff employed by NHS, barrier to skill mix developments
<i>Socio-cultural</i>	
Patient expectations	Continuity, access
Specialisation	GPSIs, more disciplines involved in primary care, possible loss of the GP generalist
Skill developments in GPs and nurses	GPSIs, nurse practitioners, enhanced practice nurses, health care assistants, nursery nurses
Changing roles	Diversification and delegation, potential for overlap and confusion
<i>Economic</i>	
Availability of skills and staff	Staffing shortages and difficulties both driver and barrier for skill mix
Finite resources	Skill mix helps make best use of finite resources, can limit developments
Cost of skilled labour	Nurse practitioners and higher graded practice nurses in skill mix more expensive, HCAs cheaper and more popular
Spend on premises	Not enough space in practice premises, will limit skill mix, facilities and car parking
Size of practice	Larger teams, harder to communicate around the team, more professionals based at the practice improves choice

The final figure in the literature view was an emerging model for the body of knowledge relating to skill mix in primary care, from the patient, professional and management perspectives. This model attempted to bring together the main categories emerging from the literature review and the specific issues within each of these categories. The figure is re-presented here in figure 6.6a. The original findings which are still valid after the study remain in plain text. Those which are disputed or did not emerge as important in the study are struck through. Additions are shown in italics.

Figure 6-6a: Emerging model of the body of knowledge relating to skill mix in primary care: patient, professional and management perspectives (derived from the literature review and revised following the study)



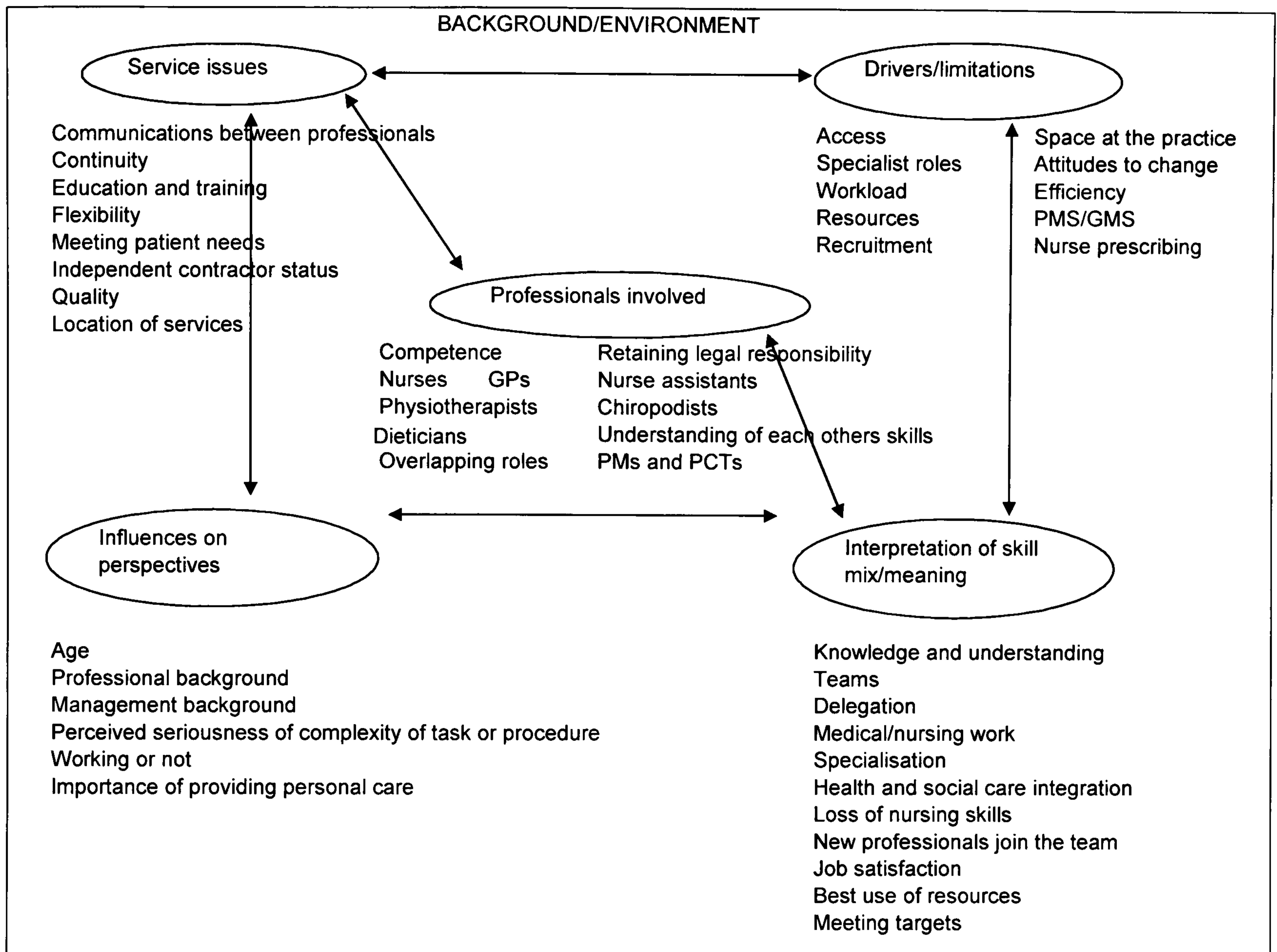
All the categories identified in the literature review remain valid following the study; however, it was considered that many drivers for skill mix could also be limitations. In the 'service issues' category, communications which were important were those between professionals rather than between professional and patient. Neither consultation length nor access to information emerged as issues. Education and training, flexibility, meeting patient needs, the independent contractor status of GPs, and quality did all emerge as issues. Under 'drivers/limitations', recruitment, space at the practice, efficiency,

contracts, and nurse prescribing all emerged as issues. In terms of 'professionals involved', nurse assistants, practice managers, PCTs, physiotherapists, chiropodists and dieticians were important. Issues relating to professionals included retaining legal responsibility, understanding each others' roles and overlapping roles. 'Influences on perspectives' no longer included patients' health or socio-economic status, the depth of the relationship that patients had with professionals, or their expectations. Gender did not emerge as an influence on patient or professional views. More important influences included the perceived seriousness of the task or complexity, the working status of patients, and the importance of personal care. The 'meaning/interpretation of skill mix' no longer includes CPD. It does include health and social care integration, concern over the possible loss of nursing skills, new professionals joining the team, job satisfaction, making the best use of resources, and meeting targets.

As before, the arrows indicate the links between each theme as they do not stand in isolation. Interpretation of the term 'skill mix' is influenced by personal characteristics and professional background. These can be influenced by how an individual understands skill mix, and the impact it has on services which are important to them. Service issues are influenced by the professionals involved in skill mix. Drivers for development are closely linked to service issues and in many cases, the driver and the outcome may be similar – for example, the desire to improve access. Added to this is the importance of the background or the environment in which the developments

take place: the nature of the area and GP practices within it. Figure 6.6b shows the revised model.

Figure 6-7b: Emerging model of the body of knowledge relating to skill mix in primary care: patient, professional and management perspectives (derived from the literature review and revised following the study)



6.7 Development of a method of studying patient views on skill mix in primary care

One of the research objectives was to develop a methodology for studying patients' views on skill mix in primary care. It is considered that this objective has been partly met. Focus group 'key cards' and a questionnaire are available as a result of the study. However, the methods used for recruiting

patients were only partly successful. It is also unclear whether the aim of studying views from 'skill mix' and 'traditional' practices has been achieved.

The approach that was taken was to classify patient views from 'skill mix' and 'traditional' practices, in accordance with the need for comparison in case studies (Jensen *et al*, 2001). The next stage involved selecting patients to join focus groups from 'skill mix' and 'traditional' practices, and multi-stage sampling was used. This involved sitting in the waiting rooms of a skill mix and a traditional practice, to recruit patients to join focus groups. However, only three patients from each practice turned up to each group so a further 'mixed' group was held, which again makes it difficult to categorise views from different types of practices. As noted previously, this method of recruitment to the focus groups did not turn out to be successful and other methods, for example, targeting specific social groups such as mother and toddler groups, are likely to be more productive.

One of the challenges of the patient focus groups was how to facilitate a discussion on a complex topic such as skill mix, which includes different types of delegation and diversification. To achieve this, 'key cards' were designed. The cards covered statements designed to elicit views on diversification including GPSIs and a range of professionals at the practice. They also covered delegation to practice nurses, pharmacists and health care assistants. Service issues included communications, advice-giving, appointment length, access, continuity, role understanding and therapeutic relationships. It would be feasible for these cards to be used by other

researchers with focus groups to develop an understanding of patient views on skill mix in primary care.

The issues raised in the focus groups were followed up in interviews in more detail. The results from both the focus groups and interviews were then used to devise a patient questionnaire. Again, devising a questionnaire that was relatively short and easy to complete on a complex topic such as skill mix was challenging. The items included on the questionnaire were designed to determine levels of agreement for delegation and diversification, and to identify tasks which patients thought could be delegated. The items also covered the relative importance of different service issues, which professionals patients would like at the practice, and views on flexibility and specialisation. Classification questions included health and working status, age, length of registration, and how many times patients had visited the surgery. From the questionnaires returned, it did not appear that completion of the questionnaire was difficult for patients and it would therefore be possible for other researchers to use the instrument to gauge patient views on skill mix in their practice or locality. Various methods to improve response rates were tried with the questionnaire although they were of limited success: the questionnaire was kept short, a reply paid envelope was included, and the cover letter was from the patient's GP. Other methods may therefore have to be considered to improve response rates in other studies.

6.8 Recommendations for evidence based policy and practice

One of the research objectives was to make recommendations for evidence-based policy, for implementation at national and local levels. This section discusses the implications for policy and practice which are then summarised in tables at the end of each section. It is considered that a number of issues have been identified across the study which provide useful policy and practice recommendations, so this objective is thought to have been achieved.

As identified in the introduction in chapter 1, there are four levels at which policy processes take place in the field of primary care (Taylor-Gooby and Lawson, 1993; Peckham and Exworthy, 2003). The 'systematic level' shapes the health system overall, agreeing broad goals and negotiating overall budgets. The 'programmatic level' decides priorities and resources at macro level. These two levels encompass organisations who are involved in setting policy and therefore recommendations targeted at these levels are considered to be implications for policy. The 'organisational level' determines the way in which health services operate, including the organisation and management of primary care organisations. The 'instrumental level' is where management policy is made and relates to service implementation. These two levels encompass organisations involved in the delivery of policy into everyday practice and therefore recommendations targeted at these levels are considered to be implications for practice.

6.8.1 Policy implications and recommendations

An overriding theme throughout the patient stage of the research was that they were generally unaware of a number of skill mix developments. There was an increasing awareness of practice nurses taking on more work from GPs, but they were much less clear and sure about other newer roles such as nurse practitioners, HCAs and GPSIs. There was also some reticence to see other professionals join the primary care team. This could be due to difficulties in understanding the roles and potential contributions of different professionals. A patient information and awareness campaign, possibly through the Doctor Patient Partnership, might be useful to help patients understand the changes in skill mix in primary care. This could be usefully supplemented by individual information from practices, where GPs could use their role as the patient's personal doctor to help educate and inform patients about the roles and contributions of others – this has also been advocated by the Forum for Teamworking in Primary Care (2000). The opportunity could also be taken to 'sell' the advantages of skill mix, for example, improved access for patients, which emerged as important in this study.

The new GMS contract which focuses on the practice as the unit of delivery, rather than individual GPs, was often cited by the managers as a key step forward for developing skill mix. An important aspect of the new contract is the 'quality and outcomes framework' (Department of Health, 2004). There seems to be an opportunity to emphasize the contribution that nurses can make to the delivery of these quality standards, particularly around chronic

disease management, screening and some aspects of medicines management. Another aspect of the new contract is that it was intended to help GPs manage their workload, and GP workload emerged as an important issue in the study. The contract came into force on 1st April 2004 and it is suggested that there should still be a high level of interest in how well the new contract is supporting skill mix development in primary care and allowing GPs to manage their workload. The importance of GP workload as a driver for skill mix development is a high profile issue generally and was important in all stages of the research. It is suggested that workload monitoring, particularly of GP work, should take place as there are some concerns that skill mix may not actually reduce GP workload. If done at national level, there would be sufficient data to benchmark with and to highlight areas of good practice which others may learn from.

Throughout the study, concerns were raised about the capacity of premises to hold more staff or accommodate staff taking on new roles. Action may be necessary on this issue at a number of levels. At the policy level, sufficient resources should be made available for GP premises developments. In terms of resources, most funding and commissioning of education and training in the NHS takes place at the higher levels of the policy process. This occurs through Workforce Development Confederations, which are often coterminous with SHAs, but also the National Workforce Group. It is important that the training commissioned meets the needs of existing staff in post wishing to acquire new skills. The areas highlighted in the study for nurses included taking on chronic disease management, repeat prescribing and nurses

wishing to train to become nurse practitioners. GPs could take on hospital work such as diabetic eye checks, dermatology and rheumatology. Consideration may also need to be given to how best to support the growing number of HCAs in primary care who need access to high quality, accredited training to allow them to take on work from nurses. Competency frameworks for assistants in training may be developed and HCAs should be supported to train to NVQ level 3. There is also an issue about having suitable numbers of staff trained who may be attached to practices, such as physiotherapists, chiropodists and dieticians. It is also recommended that some thought is given to establishing quality and efficiency markers for workforce issues in primary care. Benchmarking figures for staff ratios recommended in acute and community hospitals exist, and it is suggested that some thought be given to establishing similar markers for primary care.

There is some evidence from the study that the services which could be usefully based in primary care, physiotherapy and counselling, were the services frequently developed through fund-holding which then ceased when the scheme ended (Leese and Gillam, 2000). 'Practice based commissioning' (PBC) has now been introduced where practices may hold an indicative budget to commission a range of services (Department of Health, 2004). Practices and PCTs now have the opportunity through PBC to invest in the services and schemes identified in this study which received support, particularly from patients. These include GPSIs in dermatology and rheumatology, and practice based services such as physiotherapy, podiatry and dietetics. Policy level support is likely to be necessary to achieve this.

Table 6-1: Summary of policy implications and recommendations

<i>Recommendation</i>	<i>Who</i>
Patient information and awareness campaign to increase knowledge on the roles of different primary care professionals and promote the advantages of skill mix	Department of Health, through Doctor Patient Partnership
Monitor the extent to which the new General Medical Services contract is supporting skill mix development in primary care, including enhanced roles for nurses contributing to the quality and outcomes framework	Department of Health
Monitor GP workload to ascertain to what extent skill mix is reducing or managing GP workload to produce benchmarking data and highlight good practice	Department of Health
Ensure sufficient resources are available for primary care premises to facilitate skill mix developments	Department of Health
Training programmes to be in place to support trained staff already in post wishing to acquire new skills as part of skill mix	Workforce Development Confederations/National Workforce Group
Consideration to be given to how best to support the growing number of healthcare assistants with training and competency frameworks	Workforce Development Confederations/National Workforce Group
Ensure that education and training commissioning is sufficient to allow for adequate numbers of therapy staff to be attached to practices through skill mix	Workforce Development Confederations/National Workforce Group
Promote practice based commissioning as a mechanism to encourage practices to invest in services which were based in practices during fund-holding and were popular, e.g. physiotherapy	Department of Health

6.8.2 Practice implications and recommendations

There are a number of practice level implications from the study. Delegation through skill mix was viewed favourably by patients, although there were higher levels of agreement for tasks to be delegated including the delegation of asthma care, seeing patients with coughs/colds, and repeat prescribing. These may be useful priorities for delegation to nurses, if this has not already

occurred. There was also some support for delegation of blood pressure and weight checks, and urine and blood tests from nurses to assistants. Throughout the patient stage of the research, diversification through skill mix involving GPSIs and the other professionals at the practice was only partially welcomed. When considering this aspect of skill mix, practices should give consideration to which services *patients* might want to see at the practice, as well as those that would be useful for professionals. Early priorities for inclusion might be physiotherapists, chiropodists and dieticians which were favoured by both patients and professionals. PCTs, when considering which services would be best delivered through GP practices, may also wish to consider these services as early priorities. Regarding GPSIs, there was a relatively low level of support for this and only diabetic eye checks were supported by more than half the patients. There was most concern about sigmoidoscopies and endoscopies being carried out by GPSIs. When PCTs are considering the further GPSI roles, the acceptability of the task being carried out by GPs needs to be given consideration. Discussion with patient groups should take place, and high quality patient information should accompany any developments.

As a general rule, patients had much lower levels of awareness and experience of skill mix than professionals and management. Their views on various aspects of service development do differ so it is important that patients should be involved in service developments through participation groups or similar, and also at PCT level through patient fora. The key cards designed for this study could be adapted for use with these groups. It would

also be possible for practices and PCTs to survey patients using postal questionnaires; the one devised for this study could be used. When considering skill mix compositions to discuss with patients, it is also worth considering the characteristics of the practice or PCT population to ascertain possible patient preferences for skill mix. The study found that older people seemed to favour continuity, younger people wanted a range of health and social care professionals at the practice, and workers wanted better access. PCTs could support this by providing information to practices about their patient groups for health needs assessments, to inform skill mix.

The study showed that most practices, in Torbay at least, are already involved in teamwork and teambuilding events. This should continue as some teamwork difficulties emerged, particularly with regard to overlapping roles and irregular monitoring of work. Particular areas of role overlap seemed to be care co-ordination, health promotion, and holistic care which were identified by all professional groups as key to their role. Potential for overlapping roles in chronic disease management and being the first point of contact exist for GPs, DNs and PNs. Family planning is carried out by GPs, HVs and PNs. Prescribing is part of GPs, HVs and NPs roles. Triage is carried out by GPs and PNs. Diagnosis and treatment are part of the role of GPs and NPs. Thus, there is considerable scope for confusion amongst professionals as to who does what. The study also showed that attached nurses in particular were less likely to feel part of the team. However, as the analysis of key tasks shows, they are involved in primary care tasks and there is scope for greater involvement of attached nurses in some teams.

Considerations around preserving continuity should be linked to team development and in larger teams, sub-teams and 'teams within teams' have been advocated as a way to do this.

As noted previously, the majority of the education and training that supports the NHS is commissioned and provided at the higher policy process levels. However, PCTs have considerable scope to support practices with development and training initiatives which are more appropriately delivered locally. A good example would be that practices are supported to take time out for development, such as skill mix implementation. Other training that may be more appropriately delivered locally could include training for nurses and HCAs. Training and development to support practice receptionists could also be delivered locally. Topics could include customer care and 'signposting' patients in the practice team and to other agencies. In developing local skill mixes, it is important to take into account the views of those who will be involved in delivering the service. It has been noted previously that there were some variations in views by job type and when working with professionals on skill mix changes these should be borne in mind.

Table 6-2: Summary of practice implications and recommendations

<i>Recommendation</i>	<i>Who</i>
Focus on patient priorities for delegation to nurses: repeat prescriptions, seeing patients with coughs/colds, and monitoring asthma and diabetes	Practices
Focus on patient priorities for delegation to assistants: blood pressure and weight checks, and urine and blood tests	Practices
Focus on patient priorities for services to be based at the practice: physiotherapy, chiropody, and dietetics	PCTs
Focus on patient priorities for GPSI developments: diabetic eye checks	PCTs
High quality patient information, including information on new roles, to accompany skill mix developments	Practices, supported by PCTs
Patients to be involved in the design and implementation of new skill mixes – through patient fora, practice patient participation groups, and questionnaire surveys	Practices and PCTs
Skill mix to be informed by health needs assessment and patient group preferences; for example, older people and those who work	PCT to provide comparative information to practices
Teamwork events should continue, with particular emphasis on defining 'who does what' as there was some evidence of overlap. This should involve attached staff. The opportunity should also be taken to consider how best to maintain continuity in larger teams, possibly using sub-teams	Funded and supported by PCTs, practices to action
Practices should be allowed and funded to have protected time to develop and implement skill mix	PCTs
Local training programmes to be devised by PCTs for nurses, assistants and receptionists	PCTs

A procedural checklist, which could be used by practice and PCT managers when developing skill mix, has been formed from this section and is shown in figure 6.7.

Figure 6-7: Skill mix procedural checklist: for use at a practice team building event or similar

Patient centred skill mix

- Older people seem to favour continuity.
- Younger people want a range of health and social care professionals at the practice.
- Workers want better access and a range of appointment times.
- All patients feel access and continuity are important; consider how to preserve continuity in larger teams - sub-teams, teams within teams?

Patient involvement and information

- Raising patient awareness, particularly on new roles such as NPs, GPSIs, HCAs and role and contribution of new professionals who join the team.
- How to do: leaflets, newsletter articles and other professionals inc. GPs and receptionists - training for receptionists – in-house and PCT?

Promoting skill mix

- To patients, it can help improve access to services.
- To professionals, meeting patient needs and making best use of team skills.
- Helps deliver the GMS contract – nursing contribution in chronic disease management, additional services domains, and medicines management.

Delegation

- Delegation to nurses, consider chronic disease management (particularly asthma and diabetes), repeat prescribing; do any of the nurses want to become practitioners?
- Delegation to assistants, consider blood pressure checks, weight checks, urine tests and blood tests; what training do the assistants need, access to NVQ training.

Diversification

- GPSI developments, consider diabetic eye checks, dermatology and rheumatology.
- Other staff at the surgery: consider physiotherapists, podiatrists and dieticians.

Defining roles and contribution

- Who does what and to whom? Focus on care co-ordination, health promotion, holistic care, chronic disease management, first point of contact, family planning, immunisations, prescribing, triage, dressings, ear syringing, venepuncture, cervical cytology, diagnosis and treatment. Where does overlap occur?
- Make sure to involve attached nurses.

Monitoring

- How will we monitor the quality and efficiency of the changes?
- GP workload analysis before and after skill mix changes.

Premises

- Is there enough room, who will go where, what equipment will they need, how do patients get to us - where will they park?

Education and training

- What is needed to allow people to acquire new skills, does it exist already? Speak to PCT/WDC – influence commissioning.

6.9 *Suggestions for further research*

The final research objective was that the study should provide a basis for future research and offer suggestions for further research. It is considered that the study has provided a sound basis for further research which focuses on patient, professional or management views on skill mix. This section offers some suggestions on where further research would be advantageous because of the boundaries, findings and limitations of this study. The recommendations are summarised in a table at the end of the section.

This study took an ethnographic, case study approach. On this basis, it can be said to be an extensive study of skill mix in Torbay. To complement this, it would be useful to have further research undertaken in PCTs with different profiles to Torbay, for example, inner-city and remote, rural areas. It would also be useful to consider views from areas with higher proportions of younger people and those from an ethnic minority. The levels of skill mix are likely to differ and drivers for change and outcomes desired from skill mix may also differ from those required in an area like Torbay. An important finding from the study was that there were no differences in views from patients of 'skill mix' or 'traditional' practices, meaning that comparison was not possible. On this basis, it is recommended that further research be undertaken into how best to categorise practices and to compare the views of patients from different types of practice. Another objective of the research was to produce research instruments which could be used with patients to assess their views

on skill mix in primary care and the 'key cards' and questionnaire could be utilised by other researchers for this purpose.

In terms of the professionals involved in the study, this was restricted to providers of primary care services i.e. clinicians. The focus was on skill mix in primary medical care. It would be useful to conduct research which considers the views and perspectives of the other staff in primary care. Studies which focus on the role of receptionists in skill mix, who can help patients to understand who to see for what, would be advantageous. Professionals who are considered part of the 'primary care team' may differ by practice and area. It may therefore be worth considering the views of a wider range of community service professionals attached to practices in other areas. Community services can include community mental health services, podiatry, social care, school nursing, midwifery and minor injuries services. Beyond the GP practice, there are a range of services that may also be considered primary health care. These include dentists, opticians, NHS Direct, walk-in centres and pharmacists. The involvement of these professionals in the provision of primary care services will influence skill mix, and as such their views on the development of skill mix in primary care would be useful.

The distinctions between the primary, secondary and tertiary levels of care are becoming blurred, due to skill mix. Between primary and secondary care, a new tier of services called 'intermediate care' is emerging. This includes 'hospital at home' schemes and community paediatrics. In secondary care, a number of inpatient and outpatient services may be provided at a district

general hospital, but consultants and their teams may also come out to community hospitals and clinics to deliver services. These different levels form part of an increasingly complex healthcare system, and the boundaries between the services and providers are increasingly fluid as skill mix develops. There is scope to research skill mix developments between the different levels of service.

It seems likely that skill mix in primary care will continue to develop, as outlined in key reports on the future of the health service and primary care (Audit Commission, 2002; Wanless, 2002). Therefore the extent to which skill mix in primary care continues to develop, in comparison with the hospital sector, will be important. In considering how skill mix develops in the future, the most recent policy developments for primary care will also need to be considered. There is the effect of the GMS contract, with the change of focus on the practice as the provider rather than the individual GP. There is also Practice Based Commissioning (PBC), where practices may hold an indicative budget to commission a range of services. This may lead to new services, where other professionals join practice teams or GPs take on special interest roles, to avoid the need to refer patients to hospitals. The extent to which skill mix in primary care develops as a consequence of these drivers and in response to them will be important.

Although this research has helped to add information on the different perspectives on skill mix in primary care, there are still some areas where it is recommended further research be undertaken. This includes patients' views

on skill mix in primary care. In general terms, patients in the study identified 'conditions' for skill mix; for example, that referral to a doctor was necessary if the professional was 'not sure'. Research on the 'conditions' that patients apply to skill mix would be useful to complement this study as no previous research could be found in this area. Further exploration of the advantages that patients perceive may also be necessary. This study identified some advantages, for example improved access, but the range of advantages raised in this study does not appear in the literature. GPSIs are an important development in primary care, yet the patients in the study expressed concerns about the development. It is therefore recommended that further research be undertaken in this area, evaluating existing schemes and determining views on future developments. Another aspect of diversification, new professionals joining the primary care team, would also be useful to research further as previous studies on patient views focused on a particular service, rather than views on a range of possible services. There is now some evidence on patients' views on delegation to health care assistants. However, there was little existing research to draw upon, and it is recommended that further research be undertaken in this area to understand preferences and views on delegation.

With regard to professional views, there was existing research to complement the study. However, it is recommended that further research may be necessary to consider views from a wider range of primary and secondary care professionals on which services could be usefully based at the GP practice. The stage of this research which involved management views was

exploratory, as there was little previous research to build upon. It would be useful to undertake a larger scale questionnaire survey in order to assess the extent to which the findings from the interviews may be generalised. It would also be useful to focus future management research on determining which influences on views are statistically significant (or not). As this study did not involve quantitative research it was not possible to show where findings were statistically significant in their association or difference. It is thought that it would be useful to further consider the effect of professional/management background, length of service, the level of the manager in the organisation, and the position in the policy process.

One of the objectives was to identify convergence and divergence in views. Shared issues between all three groups included support for delegation from GPs to nurses, the importance of training and education in skill mix developments, the impact of workload on skill mix, and concerns over the capacity of GP premises. These four issues may therefore be taken to be of importance in developing and understanding skill mix. As they emerged as important for the three stakeholders, it may be useful for further research on each issue to be undertaken with the three groups. Another objective of the research was to understand what influences views on skill mix in primary care, and it is considered that understanding in this area has improved as a result of the study. However, there were fewer influences on patient and professional views than expected. This suggests that the study has contributed to understanding, but further research in this area may be necessary.

Table 6-3: Suggestions for future research by topic and participant

<i>Nature of the research</i>	<i>Possible participants</i>
Views on skill mix in primary care in PCTs with different profiles to Torbay	PCTs, practices, patients
Comparison of views between patients registered with 'skill mix' and 'traditional' practices	Practices, patients
Other professionals' perspectives on skill mix in primary care	Receptionists, community mental health workers, podiatrists, social workers, school nurses, midwives, minor injuries staff, dentists, opticians, pharmacists, NHS Direct, and walk-in centre staff
Skill mix between care 'sectors'	Intermediate and secondary care staff
Future development of primary care, including the impact of GMS and PBC	Practices, PCTs
Views on 'conditions' place on skill mix in primary care	Patients
Views on advantages of skill mix in primary care	Patients
Views on existing and future GPSI developments	Patients
Preferences for professionals joining the primary care team	Patients, other primary care professionals, secondary care professionals
Preferences and views on delegation to health care assistants	Patients
Test management research findings with questionnaire survey	Practice, PCT, Health Authority and Department of Health management
Determine statistically significant influences on management views	Practice, PCT, Health Authority and Department of Health management
Further test patient and professional influences on perspectives	Patients, primary care professionals
Test each key shared issue in more detail, in relation to skill mix: delegation to nurses, training and education, GP workload, and GP premises	Patients, professionals, management

6.10 Summary

This chapter has considered to what extent the aim and objectives of the research have been met. The aim of this research was to contribute to the understanding of skill mix in primary care by studying the perspectives of patients, professionals and management. It is thought that this has been achieved through a greater understanding of the views of each group, and areas of commonality and difference. It is considered that the research adds to knowledge by providing a coherent overview of the topic from the perspectives of service recipients, providers, and shapers and resourcers. The study has allowed for a greater understanding of how each stakeholder interprets 'primary care' and 'skill mix', in contrast to existing definitions. Some understanding of what influences views on skill mix in primary care has also been achieved. However, it is recognised that few differences were found and that no differences were found between 'skill mix' and 'traditional' practices, so further research is recommended in this area.

It is considered that the objective to analyse the existing literature to identify the key issues worth studying was achieved through the literature review chapter 2. Chapter 5 allowed for a thorough analysis and discussion of the findings to ascertain to what extent existing work could be confirmed. This was taken one step further in this chapter by revising the figures and model presented in the literature review as a result of the study. The study also aimed to develop a methodology for studying patients' views on skill mix in

primary care. This objective has been partly met, with the development of a questionnaire and 'key cards' for use with focus groups. However, approaches to recruitment and categorising 'skill mix' and 'traditional' practice were not as successful as hoped.

A number of recommendations for policy and practice have emerged from the research so it is considered that this objective has been achieved. It is also thought that the research has provided a sound basis for further research and a number of suggestions for further research are offered. These suggestions are considered to be beneficial to supplement this research because of the boundaries, findings and limitations of this study.

Having drawn conclusions on the research aim and objectives, the next chapter will allow for reflection on undertaking the study including challenges and practical issues.

7 Reflection

7.1 Introduction

A reflective chapter is an important aspect of a substantial learning experience, such as undertaking this study. Boud *et al* (1985) defines reflection as allowing an individual to explore their experiences in order to lead to a new understanding and appreciation. Reflection may also be described as reviewing an experience to describe, analyse and evaluate it, and serious and sober thought of an experience out of the stream of action, usually looking back to actions that have taken place (Louden, 1991; Reid, 1993). The latter interpretation is supported by Schon (1987) who differentiates between reflection-on-action (retrospective thinking), and reflection-in-action ('thinking on your feet'). This chapter is essentially reflection on the experiences of undertaking the study. Reflection-in-action takes place throughout the study particularly in the methodology, analysis and discussion, and conclusions chapters.

This final chapter focuses on the key issues of the experience of the research. Consideration is given to the extent to which findings can be generalised to other areas, a particular challenge for research undertaken at one's own place of work (ethnography at home). Practical issues are also considered, and those around recruitment and bias associated with key informants. These issues form the sub-headings of the chapter.

7.2 Generalisability

Generalisability relates to the applicability of the results of the study in other circumstances, or the degree with which findings may be transferred; it may also be known as external validity (Higgins and Green, 2005). Findings can also be considered to be valid in the setting in which they were undertaken, that is they are a true reflection, sometimes known as internal validity. However, although findings may be valid in one setting, they do not necessarily apply to another. Generalisability describes the extent to which research findings can be applied to settings other than that in which they were originally tested. It is acknowledged that in predominantly phenomenological studies, such as this one, generalisability is usually weaker (Sarantakos, 1993). It is therefore important to clarify the nature of the groups being studied to indicate the extent to which generalisations can be made (Crombie and Davis, 1996).

Research should aim to maximise both validity and generalisability, but as Altman and Bland (1998) note it sometimes involves a trade-off between the two. As an example, a study of a local population such as this can be easier to control – response rates can be maximised to help ensure the study is valid. However, it may be difficult to generalise findings elsewhere. Altman and Bland note that generalisability can be enhanced by undertaking research in ‘typical’ settings using ‘normal’ staff. The profiles of Torbay, Torbay GP practices, and patients are shown in the introductory chapter (tables 1.1 to 1.3), comparing the information with averages for England and the South

West wherever possible. The profile of the Bay is not necessarily atypical, but there are important differences.

7.2.1 Torbay – the area and general practice

The tables in chapter 1, derived from information from the Government Office South West, the national quality and outcomes framework, and NHS GMS and PMS statistics, show an interesting profile of Torbay and not one that would necessarily be expected. Torbay emerges as a rapidly growing, densely populated area. The average age of people in the Bay is relatively high, and the proportion of people of working age relatively low. The proportion of those from a non-white ethnic origin is low, and a relatively low proportion of pupils in Torbay achieve five or more good GCSE passes. The average house price is below average. Other factors, such as life expectancy and rates of unemployment, are not dissimilar to the national average. When considering whether the results may be applied to other areas, the extent to which these factors are similar or different elsewhere needs to be considered. From the overview of Torbay presented here, it would be unlikely that the results could confidently be generalised to more remote rural areas with a stable population. There would also be questions as to whether the results could be generalised to areas with a predominantly young population or those with relatively high proportions of people from a non-white ethnic origin.

In terms of disease prevalence, rates of CHD, stroke, hypertension and asthma are relatively high. Prevalence of other diseases including diabetes,

COPD and cancer, are close to the national rates. Areas with significantly different disease profiles may not be able to confidently generalise from the results. This is because morbidity profiles are likely to affect the extent to which skill mix can develop, for example, high incidence of diseases where services may be nurse-led or where GPSIs are relatively common. In terms of general practice in Torbay, the availability of services and quality emerges as good. The average list size per full-time GP is below the national average, although above the south-west rate. The proportion of PMS practices is higher than the national average, as is achievement under the quality and outcomes framework. This suggests that primary care in Torbay is quite well developed, and this would need to be acknowledged in terms of the results being applied to areas where general practice may not be so developed using these measures.

7.2.2 Study participants

In terms of the groups included in the study, descriptions of the characteristics of the samples have been given in the response rates and profiles sections of the results chapter. Of note, is that the patient participants were mostly female, retired, aged 60 years and over, white European and in good health. In terms of Torbay, this is not necessarily atypical but this profile of respondents does potentially limit the generalisability of results to areas with different profiles, for example, areas with higher rates of younger, working people and those from ethnic minorities. In terms of the qualitative patient research, difficulties recruiting did affect the degree to which those involved

could be said to be representative; those who took part were interested volunteers, and not necessarily representative.

In terms of the professionals involved in the study, the groups included GPs, nurse practitioners, district nurses, health visitors, practice nurses and HCAs. There is no evidence to suggest that the profile of professionals in Torbay is particularly different to elsewhere. However, as noted previously, the practices that they work in seem to be relatively well developed and this would need to be considered when generalising the findings from the professional research elsewhere. In terms of management involvement in the study, the groups included were practice managers, PCT managers, SHA managers and national policy leads. Small numbers were interviewed, so further work would be needed to gauge the extent to which their views could be generalised to others. Those involved were also restricted to those working in primary care development, rather than other potentially relevant work areas such as human resources, performance or operational management.

7.2.3 Context of the study

As well as it being important to comment on the area in which the study took place and the participant profiles, Sculpher *et al* (2004) note that generalisability may also be considered in terms of context (the primary focus of the study) and the decision-makers for whom the study was undertaken. The time when studies are carried out may also influence generalisability. In terms of the focus of the study, it is skill mix in primary care. It is therefore

unlikely to be possible to generalise the results to skill mix in other settings. The decision makers for whom the study was undertaken includes practices and PCTs. Some of the detail of the results may not be generalisable at higher levels of the policy process. As the study ran for five years, from 2000-2005, it is important to bear in mind some of the drivers for change that will have influenced the results and generalisability in this time. These included the national primary care access targets and the new GMS contract.

7.3 *Ethnography at home*

As noted in the methods chapter 3, part of approach to the research included ethnography at home where the researcher is immersed in the culture for months or years (Denzin and Lincoln, 1994). Key-informant interviewing is an important part of the ethnography at home methodology. This research focuses on skill mix in primary care in Torbay PCT over a period of five years, from the perspective of the researcher who has lived and worked in the area for the duration. The majority of the interviews were focused on 'key informants'. This section considers the issues of researching one's own place of work, and the use of key informants.

There are issues to be considered when studying sites and people in your own institution or agency, outlined by Creswell (1998). Although on one level the communicative basis is better, as the researcher is already involved with the participants, studying one's 'own backyard' may compromise the value of the data. Individuals may withhold information or slant it to what they think the

researcher wants to hear, or provide knowledge that is risky and political for an insider.

As the first stage of the research involved patients, this was not considered an issue as the researcher does not work directly with patients and did not already have a relationship with the patients involved. However, there was potential for it to be an issue when researching professional and management views. The researcher was aware of this and to try and overcome it, reassurance was given about confidentiality and the need for honesty was reinforced. Throughout the discussions it did not appear that views were withheld or constrained. As well as disadvantages to ethnography at home, there are advantages which can be linked to the use of 'key informants' where an existing communicative basis is considered important.

The key-informant methodology has been identified as the single most powerful ethnographic data-gathering tool (Blum *et al*, 1994). If the right key informants are targeted, then a small number of interviews can yield significant amounts of information, saving time. The key-informant is regarded as an expert, who imparts important information to the interviewer who acts the part of someone interested in learning from the informant (Blum *et al*, 1994). Key informant interviews resemble a conversation among acquaintances, allowing a free flow of ideas and information (USAID, 1996). The key informants in this study were the patients, professionals and management interviewed. Patients who participated in the focus groups and survey respondents were not considered to be key informants in this study.

USAID (1996) note that key informant interviews may be useful when qualitative, descriptive information is sufficient for decision-making and when there is a need to understand motivation. They are also useful when a main purpose is to generate recommendations, and when quantitative data collected through other methods needs to be interpreted. They can also be used when preliminary information is needed to design a comprehensive quantitative study; they can help frame the issues before the survey is undertaken. Advantages are that they provide information directly from knowledgeable people, they provide flexibility to explore new ideas and issues not anticipated, and they are inexpensive and simple to conduct. However, they are not appropriate if quantitative data is needed. They may also be biased if informants are not carefully selected, are susceptible to interviewer biases, and it may be difficult to prove the validity of findings (USAID, 1996).

In terms of this study, it is considered that by targeting the right key informants, particularly during the professional and management interviews, a smaller number of discussions produced a wealth of information which did save time. During the management and professional stages, as the researcher already knew most of the interviewees the interviews did resemble a conversation amongst acquaintances. It is thought that the use of key informant interviews was appropriate in this study as the aim was to generate qualitative descriptive information rather than quantitative data. There was a need to understand thoughts and behaviours. During the professional stage of the study, quantitative data collected during the survey required further

exploration and interpretation with key informants. The patient interviews with key informants were also useful in designing the patient questionnaire. Although the production of a management questionnaire was not part of this study, it would be possible to use the management 'key informant' interviews as the basis for developing a questionnaire.

Some of the advantages of key informant interviews were realised in that a wealth of information did come from knowledgeable people and they were relatively simple and inexpensive to conduct. In particular, it was easy to access key informants already known to the researcher during the management and professional stages. However, the potential for bias does remain in terms of the informants themselves and also interviewer bias as a relationship with most of the interviewees already existed. This is linked to the fact that many of those interviewed were working with the PCT on a range of projects, and may therefore be more inclined to be interested in primary care development.

It has been identified that informants should be interviewed more than once, so a social relationship develops between the interviewer and key-informant. Interviews were not repeated in this study which is unlikely to be an issue for the bulk of the management and professional interviews as a social relationship already existed. However, this was not the case for two of the management interviews and the patient key informants. It also means that the opportunity to bring up material from previous interviews for probing could not be taken. It is also suggested that interviewers avoid reliance on asking a

series of focused questions. Interview frameworks were used with the key informants in this study but it is thought that the wording of the questions achieved the aims of key informant interviewing, that is that participants narrate, list and expand their explanations. Probing for detail, information and examples was possible and occurred.

In comparison to patient participation, it was much easier to secure participation from professionals for the research as it had been anticipated that local professionals, who knew the researcher, may be more inclined to make the effort to respond. As it was not possible to pay professional participants, colleagues whose views it was thought would be interesting were approached. This made accessing the interviewees easy and there was a good rapport between us, and the interviewees had interesting insights into the area. However, this does pose difficulties with selection bias, as those interviewed were working with the PCT and known to the researcher.

Securing participation for the management interviews was relatively easy with local colleagues who already knew the researcher, but much harder with national leads. Practice managers readily agreed to be involved. There was a slight difficulty with the PCT interviews: it was considered that it would be useful to interview a Director and middle manager. The Director interviewed was the researcher's line manager. However, the middle manager would have been the researcher! Following discussion when it was clear there were no other suitable participants, it was agreed to approach a colleague who had recently left the PCT. However, it is likely that their views were influenced by

their new role, rather than their PCT role. After some general enquiries, two national leads were approached and agreed to be interviewed. One interview took place four months later, but the other had been cancelled four times so after six months another lead was approached who agreed to be interviewed.

7.4 *Practical issues*

Throughout the study, pragmatic decisions have had to be made in order to progress the research, when a range of challenges have been faced. Most of the difficulties faced have been linked to time constraints and lack of resources for the study.

7.4.1 Research with patients

A number of the challenges faced occurred during the patient stage of the research. It was anticipated that there would be difficulties recruiting patients to focus groups, but despite financial reward it was still very difficult and those who turned up to the first two groups cannot be said to be representative. The more unconventional method of convening the third group – a friend bringing together their friends after Sunday lunch – did produce participants with a variety of characteristics, but it was not possible to assign views to those registered with skill mix or traditional practices. Other methods for group discussion could have involved spending time with an existing group, for example, a practice patient group or a mother and toddler group. It was hoped that the members of the CHC health panel – intended to be key

informants - would have been more willing to be interviewed. However, only eight out of a possible thirty interviewees contacted the researcher. Other methods of recruiting key informants could have included patient and public involvement fora, now linked to all NHS organisations. Locally, the Patient and Public Liaison (PALS) Officers also keep lists of those interested in contributing to future service developments so they could have been approached.

In terms of the patient survey, a low response rate was anticipated and the total sample size was adjusted accordingly. It was still disappointing that despite efforts to encourage returns, the response rate was only 28%. In addition, significant differences between the patients from traditional and skill mix practices emerged, with those from the skill mix practices being significantly older and less likely to be working. Time and resources did not allow reminders to be sent, so non-response bias may be an issue. If done again, assuming a low response rate, the total samples for each practice should be bigger and resources should be identified to issue reminders. One of the reasons for not issuing a reminder was postage costs for distributing questionnaires and their return.

7.4.2 Research with professionals and management

Compared with the patient stage of the research, the professional and management stages went relatively smoothly, with few significant challenges encountered. The professional research began with a questionnaire which was considerably easier to administer than the patient questionnaire. Distribution lists held in the PCT made identifying the professionals easy, and the internal courier service made distribution and return of the questionnaires easier and cheap. However, the professional response rate was still under half (46%) after issuing one reminder, which was disappointing. A couple of respondents indicated that they found the questionnaire rather long which may have been off-putting. Greater piloting with different professionals may have helped. In terms of those who returned the questionnaire, most replies came from GPs and practice nurses, a number of whom are known to the researcher. In terms of the proportion of responses received, there were 10% or less from nurse practitioners, health visitors and HCAs so the application of the results to these professionals should be undertaken with care. The numbers of staff in these groups is much lower than the numbers of GPs and practice nurses, so this situation could not have been altered in Torbay.

With the management interviews, it was thought that fewer interviews were needed as the interview framework was longer. However, some interviews still seemed quite short, so there is a danger that consideration of managers' views is disproportionately low. Identifying management willing to participate

in the study at practice, PCT and SHA level was straight forward. However, identifying suitable participants at national level, securing interest and actually doing the interviews was more difficult. At national level, “managers” do not exist as such. The people working in the Department of Health are civil servants and tend to be policy leads. There are relatively few policy leads for primary care, although following an e-mail enquiry to the DH two names were suggested, both of whom agreed to be interviewed. One was based in Leeds though and one in London – quite a distance from Devon! Travelling to London would not have been a problem but Leeds was more challenging, and potentially expensive. It was therefore decided to undertake the interview by video link, which did not work well. A straightforward telephone interview may have been a better possibility, rather than struggling with incompatible VC technology. With regard to the interview in London, this was cancelled four times within six months at quite short notice. Although the policy lead would have been most suitable for the study, a pragmatic decision was taken to identify someone else to get the management phase of the research finished.

7.4.3 Equipment issues

Difficulties were also encountered throughout the study with equipment. It was decided to record the interviews and discussions which would help the researcher capture all the information necessary, but also demonstrate to the key-informants that the information they were imparting was important enough to record.

In the first focus group, the tape broke and the data was nearly lost but it was fixed with sticky tape to be played for one last time to be transcribed. It was originally intended that the focus group tapes would be typed up by an audio typist, but it proved too difficult to pick out different voices so the researcher typed them up. It would have been helpful to have access to a quality tape recorder, with a multi-directional microphone. If focus groups were to be carried out again, it would also be helpful to have an observer who could oversee the taping process whilst the researcher facilitated the discussion (Gardiner, 2004).

In terms of the interviews, the tape recordings from a couple of the interviews were quite poor although no fault could be found with the equipment. This would suggest that two machines would be useful for interviews. As mentioned previously, the interview with the VC was a failure as the equipment was incompatible. We then resorted to a telephone interview, which made recording the conversation very difficult and was not ideal. It would have been preferable to pre-plan to hold a telephone interview as the technology is known, or to test the VC technology in advance.

7.5 Summary

This chapter brings the research to a close by critically considering generalisability, ethnography at home and the use of key informants, and practical issues. Considering issues of generalisability, it is thought that the results of the study are valid, but that generalisability to contexts and settings

other than those studied should be undertaken with care. However, by being clear about the boundaries of the study and the characteristics of the participants and location, others may make informed decisions about transferability. The approach to the study included ethnography at home, where the researcher has been immersed in the culture for years. This has advantages in terms of an existing communicative basis for the research, but it may be biased as participants withhold certain information. The use of key informants has been important through the study and is a powerful ethnographic data gathering tool. The advantages are that they have provided a wealth of information from knowledgeable people and have been relatively simple to conduct. However, they may be biased and it may be difficult to prove validity of findings.

Finally, there were a range of practical challenges throughout the study. Most of the difficulties occurred during the patient stage of the research and included difficulties securing patient participation, which did affect representativeness. There were resource and time limitations, which did not allow for larger numbers to be involved or for several reminders to be issued during the patient survey. There were also equipment issues throughout the qualitative stages of the study which affected data collection, with difficulties encountered with recording equipment, microphones and video-conference technology.

Despite some difficulties, it is considered that the methods used were appropriate. It is thought that the study is a truthful account of what those

involved thought about skill mix in primary care. It is further considered that the topic remains one of interest, and that the implications for policy and practice make the research useful.

Appendix 1 Literature review strategy and search

To support the study, a reference database of research relevant to skill mix in primary care was established using Excel spreadsheet software. Each entry included full annotated reference, topic researched and design, number of participants, data yield, key findings, limitations and weaknesses and, setting. The number of entries is approximately 320. The literature searches were undertaken in three stages: the patient search was undertaken from September to December 2000, the professional search from June 2002 until September 2002, and the management search from June 2003 until September 2003.

The literature review was constructed by searching the following databases: HMIC (Health Management Consortium database combining the Department of Health, King's Fund and Nuffield Institute's HELMIS), Medline, Cinahl, RCN Journals database, BNI (British Nursing Index), Embase, PsychInfo, Assia and Amed. The search terms used initially were 'skill mix', 'primary care', 'patient satisfaction', 'professional views' and 'management views'. However, it became clear that other terms were also in common use so the search was extended to include the terms 'general practice', 'GP views', 'nurse views' and 'manager views'. In addition to searching the databases, the two bibliographies on skill mix in primary care, from the national primary care research and development centre (Sergison, Sibbald and Rose; Halliwell, Sibbald and Rose), were used. Any reference where the key words included 'patient satisfaction', 'attitudes', 'inter-professional attitudes', 'inter-professional working', 'manager' and 'management' were followed up. Material is also included which was readily available from full text publications on the internet: BMJ, The Lancet, and at the time, Nursing Standard. In addition, the internet search engine 'Google' was used to search on the terms. At this point, saturation had been reached as the same references kept coming up.

There was no time limit set on the literature search as it was thought to be important to track the development of primary care over time. The pace of change during the last 20 years or so has been dramatic and there has been a move to an increasingly patient-centred provision of services. Literature from the UK, Europe and the US was included, although only English language articles have been used. As expected, a large number of references were generated. An assessment of the relevance of the studies was undertaken by the researcher on the basis of the title, abstract and key words. Potentially relevant articles were obtained in full if possible. In view of the difficulty that the search terms may also exclude articles relevant to the topic, the reference lists of all articles were searched. The main limitation as to whether a study was included in the review was the ease with which it could be accessed; generally, studies reported in journals from abroad proved difficult to get hold of.

Details of each study (topic researched, design and number of participants, data yield, key findings, setting and limitations/weaknesses) were entered

onto the database. Quality assessment and relevance to the topic area was carried out by the researcher. All studies were scored using the following principles. Grade A was an excellent source, B pertinent but very limited, C interesting but subjective or of questionable reliability, and D not pertinent. Those studies which scored lower grades were either excluded from the final review, or mentioned only in support of other higher graded studies.

Throughout the study, prospective searching of core journals was undertaken. The journals that were searched were the BMJ, the British Journal of General Practice, Family Practice, Health and Social Care in the Community, Journal of Advanced Nursing, Nursing Standard, and Primary Health Care Research and Development. This was done with the aid of e-mail notification of the contents lists on a regular basis.

Appendix 2 Professional background of the author

I have worked for the NHS in South Devon since leaving school in 1987 in a variety of clerical, secretarial and managerial posts. I have worked for no other employer and (still) have no desire to. I have seen and been part of the organisations involved in the introduction of the 'purchaser/provider' split in healthcare in 1990. I have worked for a Family Health Services Authority up until it was abolished, when I joined one of the new health authorities in the mid-1990s. I have seen the construction and abolition of GP fund holding. I joined one of the new primary care groups in 1998, which later became a trust and early in the new millennium took on a number of responsibilities from the old health authorities. In 2004, Torbay PCT prepared to become a Care Trust to provide and commission health and social care; in 2005, this became a reality. I have seen and been part of many organisational changes in the NHS but one over-riding theme has been my involvement with primary care, since I began work with Devon FHSA in 1992.

Although I have always worked full-time, I have retained a commitment to continuing professional development. In the late 1980s I completed a BTEC National Certificate in Business Studies and then a BTEC Higher National Certificate in Public Administration through distance learning in the early 1990s. In the mid-1990s I completed a Post-graduate Diploma in Management Studies through the University of Plymouth. The latter course provided the option of an extra years (hard!) study to complete a dissertation for a Master of Arts degree which I did, choosing skill mix as my subject. It was a topic relevant to my work as I was working with GP practices who wanted to become PMS pilots, and one benefit was the ability to skill mix. To keep the dissertation manageable, I was struck by how little literature there seemed to be about GPs' views and decided to research GP attitudes by interviewing ten GPs from south and west Devon. The MA was hard work, but I found the research process enjoyable and when I received the results of the MA, I was awarded the degree with a Distinction. It was my partner who suggested at this point that I consider further study. I discussed the matter with University of Plymouth academic staff and felt ready to continue researching skill mix. I felt I had a good level of knowledge on the subject but was interested in taking it further to explore the perspectives of three key players in health care: patients, professionals and managers.

Appendix 3 Patient focus group “key cards”

Statements to be typed on sheets on A4 card in large bold text.

The focus group task is to organise the cards into piles of those the participants agree with / disagree with / don't know about or are undecided.

Before starting, outline purpose of study, check permission to tape record, provide reassurance on confidentiality.

Diversification

“General practitioners should carry out surgical procedures, such as endoscopies”

(Prompts - Competence, location of services more convenient, whole person/individual approach, therapeutic relationship, communication skills, saves money, enables GPs to use their training, enables GPs to pursue areas of interest)

“Most health services should be available at the practice”

(Prompts - Examples – hospital services, advice, social services)

“There should be more choice about which health professional you can see”

(Prompts - Doctor, nurse, nurse practitioner, health care assistant, counsellor, physiotherapist)

Delegation

“Practice nurses should be able to take on more work from the GP, such as prescribing”

(Prompts - Competence, enables GP to spend more time with patients, enables GP to deal with more complex cases and use their training, limits to what nurses should do, might be better at technical tasks, saves money)

“Health care assistants should carry out routine procedures, such as taking blood”

(Prompts - Competence, enables more senior nurses to use their skills and training, more senior nurses can take work off GP, limits to what they should do, might be better at technical tasks, saves money)

“Pharmacists should take on work previously carried out in the GP practice, such as diagnosis and treatment of minor illnesses”

(Prompts - Competence, more convenient location, don't have to make an appointment, don't have my notes, don't know me, might reduce workload for the practice)

Service issues

“Practice nurses are easier to talk to than general practitioners”

(Prompts - Length of time spent, better interpersonal skills)

“Only GPs should give advice to patients on their illness”

(Prompts - Competence, other staff form barriers to care, other staff don't know about complications)

“The appointment length should be longer”

(Prompts - How long, different with different staff)

“It should be easier to get an appointment with a health professional”

(Prompts - Who would you want to see)

“It's become more difficult to know what each health professional does”

(Prompts - Large practice, patient information provided, role of GP as information giver)

“It's become more difficult to know which health professional to see at each visit”

(Prompts - Small/large practice influence, need to make lots of appointments)

“It's becoming more difficult to build a relationship with a health professional”

(Prompts - Seeing different people makes it difficult, moving around so difficult to form relationship)

“It is important to be able to see the same health professional each time you go to the practice”

(Prompts - Personal care very important)

Appendix 4 Patient interview framework

Introduction

- Background and purpose of study

“This study is to find out what patients think about the increasing number and type of health professionals working alongside general practitioners and the changing roles of GPs and other professionals – this is known as “skill mix in primary care” and is a key National Health Service policy. In order that health services can develop in the best possible way to benefit patients, it is vital that patients’ views are known and taken into account by policy-makers. Research in health service changes most often involves health professionals and managers, not patients and it is important to redress this balance.”

(Skill mix can involve delegating or transferring a job from one type of professional to another. In Britain, tasks are often transferred from highly qualified, expensive professionals to less highly qualified cheaper professionals. Tasks such as taking cervical smears, health checks, travel injections and routine control of asthma and diabetes have, in some practices, been transferred from GPs to nurses. Other tasks such as taking blood and blood pressure checks may be transferred from senior nurses to junior nurses or assistants. Skill mix may also involve service development or diversification, when the range of services provided from the GP practice is increased through the addition of different types of professionals or through new skills acquired by existing staff. The intention is to meet health needs and/or to replace services previously provided in hospitals or other settings. This could include the provision of counselling at the practice and the GP undertaking procedures that previously would have necessitated a trip to hospital such as minor surgical procedures and the control of patients on blood thinning “warfarin” tablets.)

- Check permission to tape record

“The interview will be tape-recorded, to ensure that valuable information is not lost; these tapes will only be available to the researcher. They will be transcribed and once this done, destroyed. Is that OK?”

- Confidentiality

“All the information collected about you during the course of the research will be kept strictly confidential. Any published report of the research will not identify you. All information will be anonymised so that you cannot be recognised from it.”

- Explain format of interview - any questions?

“The interview is not expected to last more than one hour. The discussion will be open-ended, and is intended to draw out your views of the topic.”

Personal details (required for phenomena)

- Age
 - Practice registered with
 - Working/not working
 - Good/moderate/poor health
- (Gender and ethnicity can be determined/observed)

Questions

To get general views:

1. *What are your views on skill mix in primary care?*
2. *What is your experience so far of skill mix in primary care?*

To get further information where there was no clear view from the focus groups:

3. *What do you think about GP carrying out surgical procedures, such as endoscopy?*
4. *Do you think that nurses are easier to talk to than GPs?*
5. *Do you think there should be more choice about who you can see at the practice?*
6. *Do you think that most health and social care services should be available from the GP surgery?*

To try to clarify why the views so far contradict the literature:

7. *Do you think the appointment length is more important for some patient groups?*
8. *Do you think that continuity of care is more important for some patient groups?*
9. *Do you think being able to get an appointment quickly is more important for some patient groups?*
10. *Do you think that only GPs should give advice to patients on illnesses?*
11. *Do you think practice nurses are being used for the maximum benefit of patients?*
12. *What do you think about communication between professionals in GP practices?*
13. *What do you think about practice nurse-led services in practices?*

Conclusion

- Thank respondent
- Give them claim form
- Tell them when results will be available
- “Wind down” conversation

Appendix 5 Professional interviews framework

Before starting, outline purpose of study, check permission to tape record, provide reassurance on confidentiality.

Interview one of each – NP, PN, DN, HV, HCA. Two GPs

Those areas where the survey does not correspond with the literature (all)

- *Thinking about skill mix developments at your practice, what are the main influences that led to the need to develop the skill mix?*
(prompts – development for nurses, development for doctors, access target, cutting costs, GP recruitment)?
- *What do you think are the most important, positive outcomes from a change in the skill mix?*
(prompts – team structured to meet needs, patient access, job satisfaction, doctors use skills, more time)
⇒ *To what extent have these outcomes actually occurred?*
- *In your experience, what have been the main difficulties which have hindered skill mix developments at the practice?*
(prompts – recruitment difficulties, different employers, attitudes)
⇒ *To what extent were these difficulties overcome?*
- *The need for good teamwork has been closely linked to successful skill mix changes. How well do you think your primary care team functions?*
⇒ *Are there any areas where you think that teamwork could improve?*
(prompts – shared leadership, understanding of each others roles, clear expectations, training provided, greater integration of attached staff)
- *Personally, how important to you is it to be part of a group, where activities and contributions are co-ordinated, rather than working autonomously where you manage your own work as you see fit?*

Those areas where professionals views were significantly different to others

Nurse practitioner questions:

- *What attracted you to the nurse practitioner role?*
- *To what extent do you feel GP attitudes are a barrier to skill mix?*
- *To what extent are you supportive of delegation from GPs to nurses?*
- *To what extent have you been supported to take on new tasks to deliver skill mix?*

General practitioners questions:

- *To what extent has the need to cut your workload been a priority for developing skill mix?*
- *To what extent has a desire to concentrate on more complex cases been a priority for developing skill mix?*

- ⇒ *Are you concerned about being left with lots of complicated work as a result of skill mix?*
- *To what extent are you concerned about loss of the continuity and personal care as a result of skill mix?*
- *To what extent are you concerned about loss of the GP generalist role as a result of skill mix?*
- *To what extent are you concerned about loss of quality as a result of skill mix?*
- *Is there anything you would feel uncomfortable delegating to other professionals?*
(prompts for immediate care, repeat prescribing and skin complaints)
- *To what extent do you want to pursue a range of clinical interests, either to provide a new service in the practice or elsewhere?*

District Nurse questions:

- *To what extent do you feel like you are part of the primary care team?*
- *To what extent do you think skill mix has been driven by the need to cut costs?*
- *To what extent are you concerned about losing control over your work through skill mix?*

Health Visitor questions:

- *To what extent do you feel like you are part of the primary care team?*
- *To what extent do you think skill mix has been driven by the professional development needs of nurses?*
- *To what extent do you think skill mix has been driven by the need to cut costs?*

Health care assistant questions:

- *To what extent do you feel like you are part of the primary care team?*
- *To what extent are you concerned about losing control over your work through skill mix?*
- *To what extent are you concerned about primary care teams getting too big as a result of skill mix?*
- *To what extent have you been supported to take on new tasks to deliver skill mix?*

Practice Nurse questions:

- *To what extent have you been supported to take on new tasks to deliver skill mix?*
- *To what extent are you concerned about loss of quality through skill mix?*
- *To what extent are you concerned about retaining legal responsibility through delegation?*

Appendix 6 Management interviews framework

Before starting, outline purpose of study, check permission to tape record, provide reassurance on confidentiality.

Interviewees:

- 2 x practice managers from Torbay (traditional and skill mix rich practices)
- 2 x managers from Torbay PCT – Director level and middle manager
- 2 x strategic health authority level managers – performance management role + facilitative role
- 2 x national DH level managers

Characteristics:

1. *What is your background?*
(prompts: doctor, nurse, health authority administration, family health services administration, practice, private sector)
2. *How long have you been in NHS management?*
(pre-1980s and post-1980s – New Public Management)

General questions that also relate to patient and professional stages:

3. *What does “skill mix in primary care” mean to you?*
(prompts: delegation, diversification, mix of skills, mix of grades)
4. *What do you think are the main influences that have led to skill mix developments in primary care?*
(prompts: access target, GP contract, need for professional development, cost containment, secondary to primary care workload shift, recruitment/retention, national policy)
5. *What do you see as the most important outcomes from a change in skill mix?*
(prompts: improved access, more time with patients, primary care better meets needs, retention improves, professionals make better use of their skills)
6. *What do you see as the main barriers to furthering skill mix?*
(prompts: attitudes, premises, funding, different employers, recruitment, personalities)
7. *Do you have any concerns about the development of skill mix?*
(prompts: competencies, continuity, large primary care teams, role conflict)

Specific questions from management literature:

8. *Who do you think are the key players in developing skill mix in primary care?*
(prompts: DH, health authorities, PCOs, practices)
9. *What do you think is the role of your organisation in developing skill mix in primary care?*
(prompts: set health policy, facilitate, performance manage, implement policy, deliver service)

10. *How important a priority is the development of primary care skill mix in your organisation?*
(prompts: secondary care)
11. *What do you think is the role of management in skill mix development?*
(prompts: facilitate, challenge, achieve consensus)
12. *To what extent do you think skill mix has been driven by a need to cut costs?*
(prompts: value for money report)
13. *Are you concerned about a reduction in quality as a result of skill mix?*
(prompts: professional responses to VFM report)
14. *Do you think that there is a clear set direction for skill mix in primary care?*
(prompts: emergent or directed policy)

The future?

15. *How do you think skill mix in primary care will develop into the future?*
(prompts: one-stop primary care centres, GP specialists, nurse practitioners, larger practices and teams, nurse-led services – task areas/professionals involved)

Q1 Please rate the following statements on the delivery of GP services.
(Please tick one box only for each statement)

	(1)	(2)	(3)	(4)	(5)
Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
I would see any health professional at the practice to be seen sooner					
Practice nurses could take on more work from GPs					
GPs could take on more work from hospital doctors					
Practice nurse assistants could take on more work from practice nurses					
Pharmacists could take on more work from GPs					

C5
C6
C7
C8
C9

Q2 Which of the following services have you used and which do you think could be transferred from GPs to practice nurses? (Please tick as many as apply)

	Have you used this service?		Could it be transferred?
Issuing repeat prescriptions	<input type="checkbox"/>	C10	<input type="checkbox"/>
Seeing patients with coughs and colds	<input type="checkbox"/>	C11	<input type="checkbox"/>
Monitoring patients with asthma	<input type="checkbox"/>	C12	<input type="checkbox"/>
Monitoring patients with diabetes	<input type="checkbox"/>	C13	<input type="checkbox"/>
Monitoring patients on blood thinning Warfarin tablets	<input type="checkbox"/>	C14	<input type="checkbox"/>
Seeing patients who request same-day appointments	<input type="checkbox"/>	C15	<input type="checkbox"/>
Other (please state)	<input type="checkbox"/>	C16	<input type="checkbox"/>

Q3 Which of the following services have you used and which do you think could be transferred from practice nurses to practice nursing assistants? (Please tick as many as apply)

	Have you used this service?		Could it be transferred?
Blood pressure checks	<input type="checkbox"/>	C24	<input type="checkbox"/>
Blood tests	<input type="checkbox"/>	C25	<input type="checkbox"/>
Urine tests	<input type="checkbox"/>	C26	<input type="checkbox"/>
Recording heart movements (ECG test)	<input type="checkbox"/>	C27	<input type="checkbox"/>
Assisting the doctor with minor surgical procedures	<input type="checkbox"/>	C28	<input type="checkbox"/>
Weight checks	<input type="checkbox"/>	C29	<input type="checkbox"/>
Other (please state)	<input type="checkbox"/>	C30	<input type="checkbox"/>

Q4 Which of the following services have you used and which do you think could be transferred from the hospital to GP specialists? (Please tick as many as apply)

	Have you used this service?		Could it be transferred?
Internal examination of the upper gastrointestinal tract (endoscopy)	<input type="checkbox"/>	C38	<input type="checkbox"/>
Internal examination of the rectum and large intestine (sigmoidoscopy)	<input type="checkbox"/>	C39	<input type="checkbox"/>
Regular checks for eye problems in diabetics	<input type="checkbox"/>	C40	<input type="checkbox"/>
Arthritis care and treatment (rheumatology)	<input type="checkbox"/>	C41	<input type="checkbox"/>
Skin complaints (dermatology)	<input type="checkbox"/>	C42	<input type="checkbox"/>
Testing to diagnose heart disease (echocardiogram)	<input type="checkbox"/>	C43	<input type="checkbox"/>
Other (please state)	<input type="checkbox"/>	C44	<input type="checkbox"/>

C45
C46
C47
C48
C49
C50
C51

Q5 Below is a list of features of GP services that are important to patients. Please indicate the order of importance of these features to you by placing a 1 beside the most important feature, 2 beside the next most important, and so on.

Seeing the same person each time at the practice	<input type="checkbox"/>
Getting an appointment quickly	<input type="checkbox"/>
Appointments at the weekend, early in the morning or later at night	<input type="checkbox"/>
The choice to see either a doctor or a nurse	<input type="checkbox"/>
A wide range of health and social care professionals at the practice	<input type="checkbox"/>

C52
C53
C54
C55
C56

P.T.O

YOUR ANSWERS WILL REMAIN CONFIDENTIAL

Q6 Below is a list of some services which could be provided from the GP surgery. Please indicate which services you would most like to see at the practice by placing a 1 next to the service you'd most like to see, 2 beside the next, and so on.

- Physiotherapist
- Counsellor
- Social worker
- Citizen's Advice Bureau
- Chiropodist
- Dietician
- Other (please state)

C57
C58
C59
C60
C61
C62
C63

Please tick here if you have used this service

C64
C65
C66
C67
C68
C69
C70

Q7 Which of these two statements about GPs services do you think is most important?
(Please tick one box only)

- Flexibility, where the GP or nurse can attend to nearly all of my needs at one visit
- Specialisation, where I may see different GP or nurse specialists depending on my needs, which may therefore entail more than one visit

Now, to help classify answers and make comparisons, would you mind giving a few personal details?

Q8 How would you describe your health?
(Please tick one box only)

- Good
- Moderate
- Poor

Q9 Please indicate whether you are:
(Please tick one box only)

- Working
- Not working

Q10 How many times have you seen the GP in the last year, including taking children and relatives?
(Please tick one box only)

- 0
- 1-5
- 6-10
- More than 10

Q11 How many times have you seen someone other than the GP at the practice in the last year, including taking children and relatives?
(Please tick one box only)

- 0
- 1-5
- 5-10
- More than 10

Q12 How long have you been registered with your current GP practice?
(Please tick one box only)

- Less than a year
- 1-2 years
- 3-4 years
- 5 or more years

Q13 Please indicate your age: (Please tick one box only)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
16-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75+ years

If you would like to make any comments to support your answers, please write in this box:

THANK YOU VERY MUCH FOR YOUR TIME TO COMPLETE AND RETURN THIS QUESTIONNAIRE

YOUR ANSWERS WILL REMAIN CONFIDENTIAL

C71
(1)
(2)
C72
(1)
(2)
(3)
C73
(1)
(2)
C74
(1)
(2)
(3)
(4)
C75
(1)
(2)
(3)
(4)
C76
(1)
(2)
(3)
(4)
C77

Appendix 8 Research information sheet

(Torbay PCT headed paper)

Information Sheet

Study No: 62001

Study Title:

**“Who does what and to whom at the GP surgery?”
(Attitudes to skill mix in primary care)**

You are being invited to take part in a research project. Here is some information to help you decide whether to take part. Please take time to read the following information carefully and discuss it with the researcher or colleagues, if you wish.

Thank you for reading this.

1. It is up to you to decide whether to take part or not. Even if you do decide to take part, you are free to withdraw at any time and without giving a reason.
2. All the information collected during the course of the research will be kept strictly confidential. Any published report of the research will not identify you.

INFORMATION ABOUT THE STUDY

1. Study Title

Who does what, and to whom at the GP surgery? (Attitudes to skill mix in primary care).

2. What is the purpose of the study?

The purpose of this study is to find out what patients, health professionals and NHS managers think about skill mix in primary care.

Skill mix in primary care describes the increasing number and type of health care professionals working alongside general medical practitioners in their surgeries and the changing roles of these professionals and GPs. Skill mix can involve transferring a job from one type of professional to another. In Britain, tasks are often transferred from highly qualified, expensive professionals to less highly qualified cheaper professionals. Skill mix may also involve service development, when the range of services provided from the GP practice is increased through the addition of different types of professionals or through new skills acquired by existing staff. The intention is to meet health needs and/or to replace services previously provided in hospitals or other settings.

This information from this study into skill mix in primary care will be used to inform service development in the NHS, ensuring that changes improve care and are acceptable to patients and professionals. The research will add to knowledge by addressing a gap in existing research, where the views of patients, professionals and managers are gathered in one study to be compared and contrasted.

3. Why have I been chosen?

Your name has been chosen from a random sample of patients registered with a Torbay GP practice / primary health care professionals – that is GPs, nurse practitioners, practice nurses, district nurses, health visitors and health care assistants (or equivalent) - working in Torbay Primary Care Trust.

4. Who is organising the study?

The study forms part of a thesis for a PhD in Business with the University of Plymouth. Under the NHS research governance arrangements, Torbay Primary Care Trust are the NHS sponsors of the study.

5. What will happen to me if I take part?

If you are sent a questionnaire, all I ask is for no more than 20 minutes of your time to complete and return the questionnaire. A reply envelope is included in the survey pack so the questionnaire can be returned to me so you need not incur costs.

If you are asked to be interviewed, I will arrange to meet you at a mutually convenient time and place for a semi-structured interview, which is expected to take no more than 30 to 45 minutes of your time. The interviews will cover a range of topics important to the area of study and will be designed to draw out further views and experiences of the subject. The interviews will be tape-recorded, to ensure that valuable information is not lost; these tapes will only be available to the researcher and will be erased once the interview has been transcribed.

6. Method of study

This study is using a combined approach, of focus groups, interviews and surveys. The mix of methods helps ensure that the results are reliable and valid.

7. Are there any disadvantages in taking part in this study?

There are no anticipated disadvantages from taking part.

8. What are the possible benefits of taking part?

In order that health services can develop in the best possible way, it is vital that patients and professionals views on existing and future services are known and taken into account by decision-makers. Being involved in decision making can be an empowering, positive experience for participants.

9. What about confidentiality?

All information collected about participants during the study will remain confidential to the researcher. Although the results of study will be shared with policy makers and submitted for publication, this will be done without individual professionals or practices being able to be recognised.

10. LREC Approval

The Torbay Local Research Ethics Committee has approved this study.

11. What will happen to the results of the study?

The results of the questionnaires will be analysed and the results will be available, in full or summary version, on request to any participant who requests it.

The results will also be shared with those responsible both locally and nationally for developing health services and may be submitted for publication, to help share knowledge.

The study is expected to be complete by 2004.

12. Contact for further information

The researcher is: Christine Branson, 01803 210912

The contacts at the University of Plymouth are Beryl Badger (01752 232800) and Dr Frank Dobbs (01752 764220)

I hope you will be able to take part in this study – thank you for your time.

Changes to primary care provision through skill mix

Q1 Please indicate your level of support for the main changes, listed below, that skill mix brings about in primary care provision. *(Please tick one box only for each change)*

	(1)	(2)	(3)	(4)	(5)
Change	Strongly support	Support	Neutral	Oppose	Strongly oppose
Work is delegated from GPs to nurses					
Work is delegated from nurses to nurse assistants					
New types of professionals are recruited to the practice team e.g. counsellors					
Existing professionals on the team acquire new skills e.g. sigmoidoscopy					

C5

C6

C7

C8

Influences on skill mix

Q2 Listed below are some commonly cited drivers for skill mix developments. Please indicate which of these have been most influential in skill mix developments you have been involved in by placing a 1 next to the most influential, 2 beside the next, and so on.

Difficulties recruiting or retaining GPs						
Increasing GP workload						
The shift of work from secondary to primary care						
NHS Plan target for patients to be seen within 48 hours						
A need to cut costs						
Professional development for doctors						
Professional development for nurses						

C9

C10

C11

C12

C13

C14

C15

Potential advantages of skill mix

Q3 Listed below are some commonly cited advantages of skill mix. Please indicate which of these you think are the most important by placing a 1 next to the most important, 2 beside the next, and so on. Please also indicate if these advantages have actually been realised.

					Has this occurred? <i>(Tick as many as apply)</i>	
Patients can access their GP more quickly					C16	
There is more time for doctors and nurses to spend with patients					C17	
The team can be structured to best meet the needs of the patients					C18	
Increased job satisfaction for doctors and nurses					C19	
The best use can be made of the skills in the team					C20	
Doctors can concentrate on more complex cases					C21	

C22

C23

C24

C25

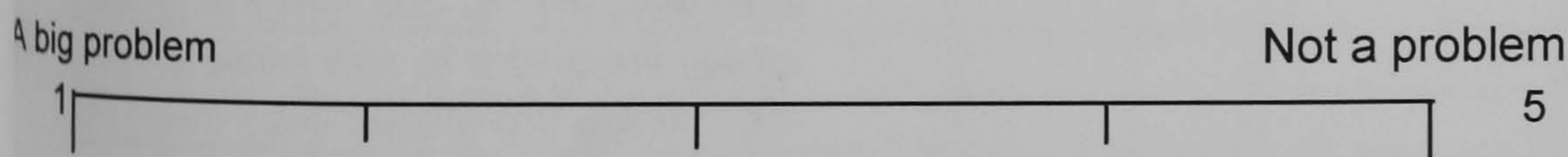
C26

C27

Barriers to skill mix

Q4 Below are listed some commonly cited barriers to skill mix developments. For each issue, please mark the scale with a cross to show how much of a problem you think it is.

Shortage of money



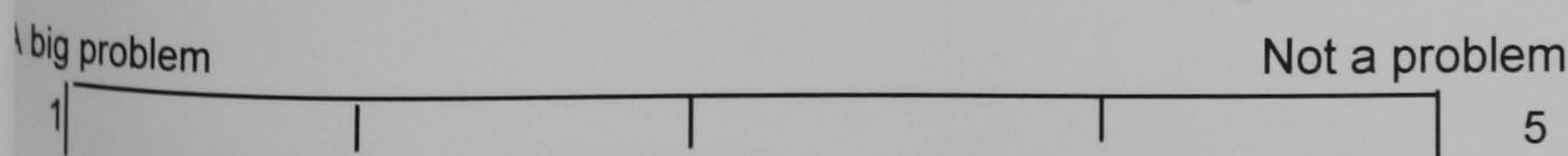
C28

Difficulties recruiting staff



C29

Lack of space at the GP surgery



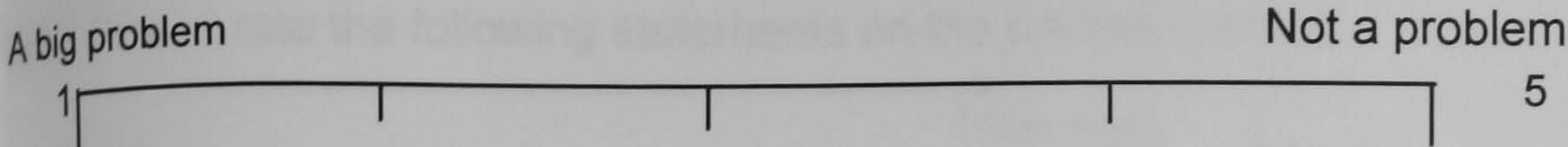
C30

YOUR ANSWERS WILL REMAIN CONFIDENTIAL

Appendix 9 Professional questionnaire

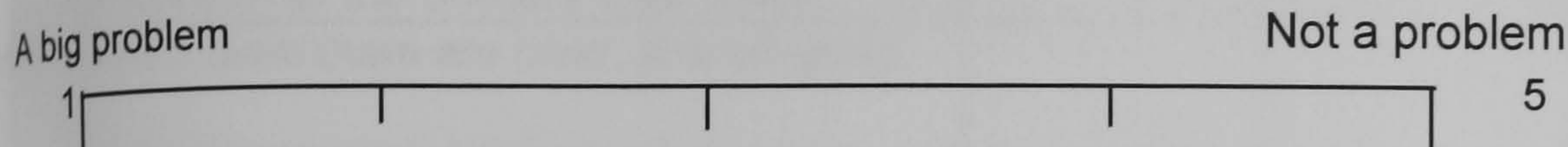
Increasing workload for nurses

C31



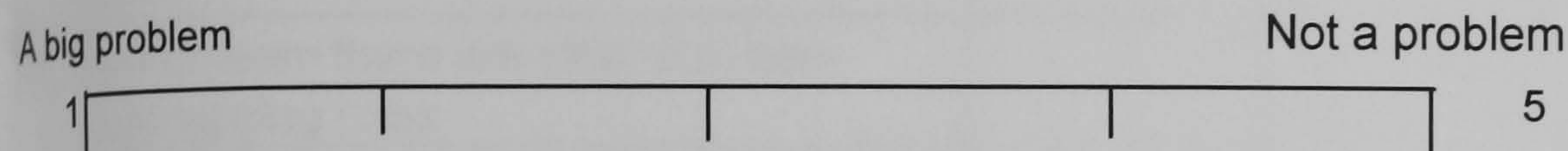
Different employers of primary health care team members

C32



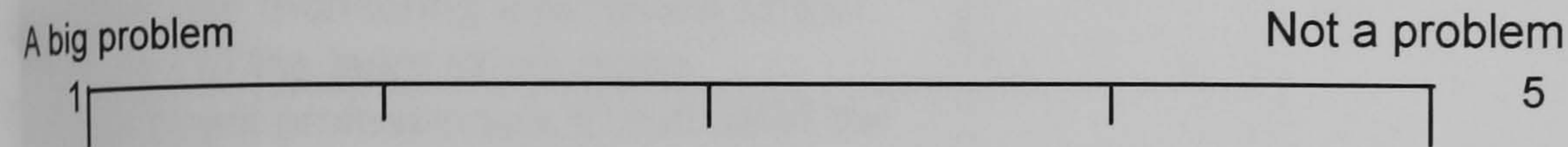
Attitudes of GPs

C33



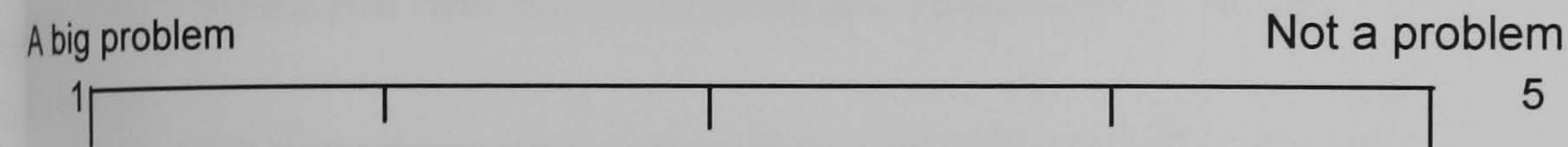
Attitudes of nurses

C34



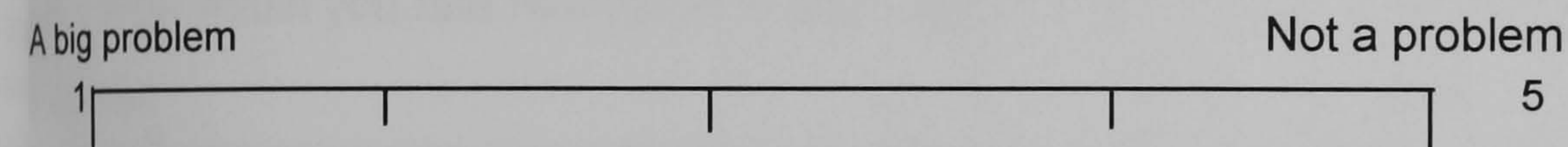
Attitudes of patients

C35



Personalities of team members

C36



Concerns about skill mix

Q5 Please rate your level of concern on the following issues, in relation to skill mix in primary care.

(Please tick one box only for each statement)

	(1)	(2)	(3)	(4)	(5)
Area of concern	Very concerned	Concerned	Neutral	Not concerned	Not at all concerned
The competencies of staff to take on new roles					
Reduced quality of care					
It is time consuming to implement and manage					
It threatens continuity and personal care					
Having to retain legal responsibility for delegated tasks					
Loss of nursing skills and functions					
Loss of the GP generalist role					
Loss of control over work					
Being left with lots of complex work					
Being given lots of mundane tasks					
Primary care teams will get too big					

C37

C38

C39

C40

C41

C42

C43

C44

C45

C46

C47

YOUR ANSWERS WILL REMAIN CONFIDENTIAL

Appendix 9 Professional questionnaire

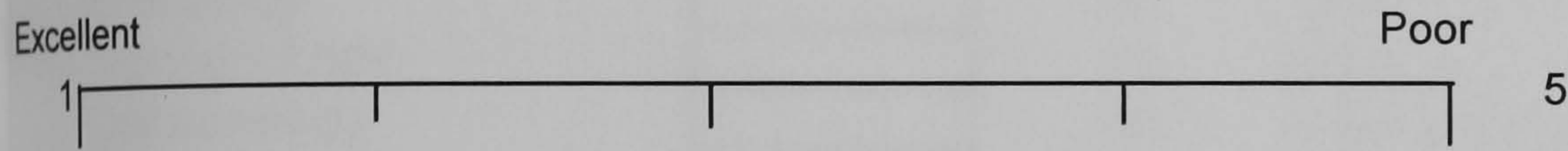
Teamwork

Q6 Please rate the following statements on the primary care team. *(Please tick one box only for each statement)*

Statement	(1) Strongly agree	(2) Agree	(3) Neutral	(4) Disagree	(5) Strongly disagree
I feel part of the primary care team					
In our team there are clear, shared goals					
I am clear about my contribution to the goals of the team					
In our team there are clear cut, non-overlapping roles					
I feel that my role in the team is clearly understood by other team members					
Regular monitoring and review of the work of the team takes place					
Different professionals should lead the team for different functions					

C48
C49
C50
C51
C52
C53
C54
C55

Q7 How would you rate communications in your team? *Please mark the scale with a cross as appropriate.*

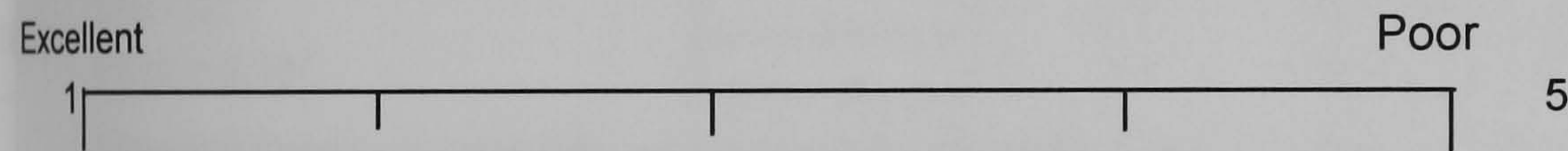


Q8 How would you rate motivation in your team? *Please mark the scale with a cross as appropriate.*



C56
C57

Q9 How would you rate levels of trust and openness in your team? *Please mark the scale with a cross as appropriate.*



Q10 Which of these is most important to you? *(Please tick one box only)*

Autonomy, where I have the ability to manage myself and my work as I see fit

Teamwork, where I am part of a group where a range of activities are co-ordinated

C58
(1)
(2)
C59
c60
(1)
(2)

Q11 On average, how often does your primary care team meet in a year? *(Please enter a number)*

Q12 Has your team had a team-building event in the last 12 months? Yes
No

Roles

Q13 Please rate the following statements on role development. *(Please tick one box only for each statement)*

Statement	(1) Strongly agree	(2) Agree	(3) Neutral	(4) Disagree	(5) Strongly disagree
I have been supported and encouraged by the team to take on new responsibilities					
I am clear what outcomes are expected of me in my role					
I have been given the necessary training to allow me to take on new responsibilities with confidence					
I can access the right information to allow me do my job well					
I am clear about my authority in respect of my role					
My progress is regularly monitored in a supportive way					

C61
C62
C63
C64
C65
C66

YOUR ANSWERS WILL REMAIN CONFIDENTIAL

Appendix 9 Professional questionnaire

Q14 Which of the following, normally carried out in primary care, do you think are core parts of your role?

(Tick as many as apply)

First point of contact for patients	<input type="checkbox"/>	C67	Health promotion	<input type="checkbox"/>	C74
Diagnosis and treatment	<input type="checkbox"/>	C68	Prescribing	<input type="checkbox"/>	C75
Care co-ordination	<input type="checkbox"/>	C69	Immunisations	<input type="checkbox"/>	C76
Holistic care	<input type="checkbox"/>	C70	Dressings	<input type="checkbox"/>	C77
Cervical cytology	<input type="checkbox"/>	C71	Venepuncture	<input type="checkbox"/>	C78
Chronic disease management	<input type="checkbox"/>	C72	Family planning	<input type="checkbox"/>	C79
Triage	<input type="checkbox"/>	C73	Ear syringing	<input type="checkbox"/>	C80

Q15 Are there any activities which you are not involved in at present which you think you could or should do?

(Please specify)

Diversification in skill mix

Q16 Which of the following activities do you think should be carried out by GPs, through the GPs with Special Interests scheme or similar? (Tick as many as apply)

Endoscopy	<input type="checkbox"/>	C82	Dermatology	<input type="checkbox"/>	C86
Sigmoidoscopy	<input type="checkbox"/>	C83	Echocardiogram	<input type="checkbox"/>	C87
Ophthalmology	<input type="checkbox"/>	C84	Vasectomies	<input type="checkbox"/>	C88
Rheumatology	<input type="checkbox"/>	C85	Other (please specify)	<input type="checkbox"/>	C89

Q17 Which of the following do you think should be based at the GP surgery? (Tick as many as apply)

Physiotherapist	<input type="checkbox"/>	C90	Community Psychiatric Nurse	<input type="checkbox"/>	C95
Occupational therapist	<input type="checkbox"/>	C91	Complementary therapist	<input type="checkbox"/>	C96
Podiatrist	<input type="checkbox"/>	C92	Social worker	<input type="checkbox"/>	C97
Dietician	<input type="checkbox"/>	C93	Citizens Advice Bureau	<input type="checkbox"/>	C98
Pharmacist	<input type="checkbox"/>	C94	Other (please specify)	<input type="checkbox"/>	C99

REGISTERED NURSES, please go to question 24 **GPs, continue to question 18**

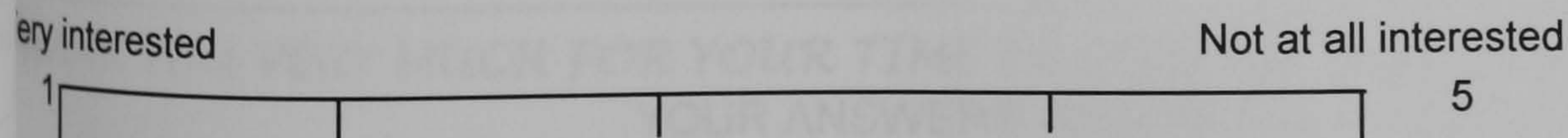
HEALTH CARE ASSISTANTS, please go to question 27

GP questions

Q18 Which of the following tasks have you or would you delegate, and to whom? (Tick as many as apply)

	(1) Have delegated	(2) Would delegate		Delegate to (please enter initials of as many as apply)	
Skin complaints	<input type="checkbox"/>	<input type="checkbox"/>	C100	<input type="checkbox"/>	GPSI = Specialist GP c112
Respiratory tract problems	<input type="checkbox"/>	<input type="checkbox"/>	C101	<input type="checkbox"/>	DGP = "Duty" GP c113
Contraception	<input type="checkbox"/>	<input type="checkbox"/>	C102	<input type="checkbox"/>	NP = Nurse Practitioner c114
Repeat prescribing	<input type="checkbox"/>	<input type="checkbox"/>	C103	<input type="checkbox"/>	PN = Practice Nurse c115
Advice	<input type="checkbox"/>	<input type="checkbox"/>	C104	<input type="checkbox"/>	HCA = Health Care Assistant c116
Musculo-skeletal problems	<input type="checkbox"/>	<input type="checkbox"/>	C105	<input type="checkbox"/>	DN = District Nurse c117
Demand for immediate care	<input type="checkbox"/>	<input type="checkbox"/>	C106	<input type="checkbox"/>	HV = Health Visitor c118
INR monitoring	<input type="checkbox"/>	<input type="checkbox"/>	C107	<input type="checkbox"/>	CPN = Psychiatric Nurse c119
Asthma monitoring	<input type="checkbox"/>	<input type="checkbox"/>	C108	<input type="checkbox"/>	PHY = Physiotherapist c120
Diabetes monitoring	<input type="checkbox"/>	<input type="checkbox"/>	C109	<input type="checkbox"/>	PH = Pharmacist c121
CHD monitoring	<input type="checkbox"/>	<input type="checkbox"/>	C110	<input type="checkbox"/>	O = Other (please specify) c122
Mental health problems	<input type="checkbox"/>	<input type="checkbox"/>	C111	<input type="checkbox"/>	c123

Q19 How interested are you in participating in the GPs with special interests scheme (e.g. being a GP who takes referrals for dermatology)? Please mark the scale with a cross showing your level of interest.



YOUR ANSWERS WILL REMAIN CONFIDENTIAL

Appendix 9 Professional questionnaire

Q20 How interested are you in referring to GPs with special interests scheme (e.g. referrals for dermatology)?
Please mark the scale with a cross showing your level of interest.

Very interested Not at all interested
1 5

Q21 Which of these is most important to you? (Please tick one box only)

The opportunity to pursue a range of interests for personal development, e.g. the GPs with special interests scheme

Being able to provide personal, continuous holistic care

Q22 Are you a GP trainer? c127 (1) Yes
(2) No

Q23 Are you a member/fellow of the RCGP? Yes
No

GPs, now please go to Q27

Registered nurse questions

Q24 How interested are you in working as a nurse practitioner? Please mark the scale with a cross.

Very interested Not at all interested
1 5

Q25 Are you based at the GP surgery? Yes
No

Q26 Have you undertaken a post-registration training course in the last year? Yes
No

Questions to be answered by all

Q27 What is your job? (Please tick one only)

	GP	<input type="checkbox"/>
	Nurse Practitioner	<input type="checkbox"/>
	Practice Nurse	<input type="checkbox"/>
	District Nurse	<input type="checkbox"/>
	Health Visitor	<input type="checkbox"/>
	Health Care Assistant (or equivalent)	<input type="checkbox"/>

Q28 Number of years since first degree, or basic qualification:

	1-5	<input type="checkbox"/>
	6-10	<input type="checkbox"/>
	11-15	<input type="checkbox"/>
	16 or more	<input type="checkbox"/>

Q29 Are you:

	Male	<input type="checkbox"/>
	Female	<input type="checkbox"/>

Q30 Please indicate your age:

	(1)	(2)	(3)	(4)	(5)
	16-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs

If you would like to make any comments to support your answers, please write in this box:

THANK YOU VERY MUCH FOR YOUR TIME TO COMPLETE AND RETURN THIS QUESTIONNAIRE
YOUR ANSWERS WILL REMAIN CONFIDENTIAL

c125
c126
c128
c129
c130
c131
c132
c133
c134
c135
c136

Appendix 10 LREC application form

SOUTH WEST LOCAL RESEARCH ETHICS COMMITTEE APPLICATION FORM

For Ethics Committee use only

Number: Date received:

Outcome: Applicant informed:

INSTRUCTIONS: Please complete in typescript. Please select Yes/No options as appropriate. A version of this form is also available on disc in Word for Windows from the Ethics Committee Secretary.

It is essential that this form is completed fully and the relevant enclosures are received if the study is to receive proper scrutiny by the Ethics Committee. Please refer to the accompanying Guidance Notes when completing the form. Please complete the checklist before sending the form.

CHECKLIST

Please indicate if the following have been enclosed by selecting *Yes/No/Not applicable* options below. For details of the numbers of copies of the form and relevant enclosures required, please contact the relevant LREC secretary. (See Appendix 4 in the Guidance Notes for details.)

	Yes	No	Not applicable
<u>1</u> copies of application form (double-sided if possible)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>1</u> copy/ies of protocol	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>1</u> patient consent form(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>1</u> patient information sheet(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>1</u> GP/consultant information sheet(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>1</u> copy/ies of lead applicant's CV on 2 sides A4 <i>(Do not submit if already submitted in last 12 months.)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Questionnaire* <input type="checkbox"/> Finalised <input checked="" type="checkbox"/> Not yet finalised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copy of manufacturers data sheet for all drugs (one copy only)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Copy of investigators brochure (one copy only)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Copies of manufacturers indemnity (2 copies only)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Copy of CTX/CTL/DDX (one copy only)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Annexe A**	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Annexe B***	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Annexe C†	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Please indicate if not yet finalised. Include interview schedule if used.

** If the study involves the use of a new medicinal product or medical device, or the use of an existing product outside the terms of its product licence.

*** If the study includes the use of ionising or non-ionising radiation, radioactive substances or X Rays.

† For research in general practice.

Please indicate below to which LREC this application is to be submitted:

Torbay LREC, South Devon Healthcare NHS Trust

1. Short title of project (in not more than 6 words)

Who does what, to whom at the GP surgery?

Full title

Skill mix in primary care: the attitudes of GPs, patients and managers

Summary of practical benefits/improvements in patient care which are envisaged

The research is focused on health service organisation and policy development and gives patients the chance to shape this. The outcomes will be applied to the development of skill mix and primary care and will add to existing knowledge by addressing a gap in the literature.

2. Applicant (All correspondence will be sent to this address unless indicated otherwise.)

Surname: Branson

Forename: Christine

Title: Miss

Present appointment of applicant: PCT Officer, Torbay PCT

Qualifications: Diploma in Management Studies, MA Management with Distinction

Address: Torbay PCT

Rainbow House

Avenue Road

Torquay, TQ2 5LS

Tel: (01803) 210912

Fax: (01803) 292975 Out of hours tel: (01803) 665532

Please note that a brief CV of head applicant must be attached with proposal (if one has not been submitted in the last 12 months). Please indicate relevant qualifications.

3. Other workers and departments/institutions involved

Ms B Badger, Director of Studies, Business School, University of Plymouth

Dr F Dobbs, Second Supervisor, Head of Department of Primary Care and General Practice, University of Plymouth

Mr D White, Chief Officer, Torbay and District Community Health Council

4. Signature of relevant bodies

I undertake to carry out the work in accordance with the principles of the Declaration of Helsinki (copy available from the LREC secretary) and its amendments.

Signature of applicant Date

Signature of Head of Department/Supervisor/Principal in General Practice
with overall responsibility

for the project..... Date

NAME AND TITLE IN CAPITALS

I am fully aware of the details of this project and happy for it to continue as outlined here.

Signature(s) of relevant Clinical Director(s) where study is being conducted/Medical Director(s) signing on behalf
of Trust(s) involved (where appropriate).

..... Date

NAME AND TITLE IN CAPITALS

This section must be completed. A copy of the protocol should be enclosed with the application form, but it is not sufficient to complete questions by referring to the protocol.

5. Aims and objectives of project (i.e., what is the intention of the project?)

The purpose of this research will be exploratory, to understand attitudes to skill mix in primary care from the perspective of patients, professionals and NHS managers using interviews and questionnaires resulting in a description of themes and patterns.

The "grand tour" research question will be: "What are the attitudes to skill mix in primary care?". The "sub-questions" will be: "What are the attitudes of patients to skill mix developments in primary care?" "What are the attitudes of professionals - GPs and nurses - attitudes to skill mix in primary care?" "What are the attitudes of managers to the implementation of skill mix in primary care?"

Study endpoints:

The study will be in three parts (patients, professionals and managers). Each part will take between one and one and half years to complete. The patient perspective section is expected to be completed by October/November 2001. The whole study should be completed by 2004.

6. Scientific background of study

A literature review on patient satisfaction and primary care has revealed that there are a number of factors which influence general satisfaction and this research will determine how these issues influence attitudes to skill mix in primary care.

Much of the research into patient satisfaction with health services and primary care has been quantitative, despite the fact that several authors have highlighted that a qualitative approach may be more appropriate to elicit patient views. This research will be predominantly qualitative, using combined methods involving interviews and questionnaires.

The research into patient satisfaction with primary care has highlighted a number of issues important to patients, which can be influenced by skill mix and become benefits or problems for patients. These include communication, access, relationships, time, information, personal care and competence. The literature also raises the issue of patient satisfaction with different primary care professionals, particularly focusing on the differences between doctors and nurses and the preferences for nurses. This research will aim to establish what patients understand by "skill mix" and benefits and problems.

7. Brief outline of project (i.e., what do you intend to do?)

I will convene two focus group discussions with about six participants; one with a "skill mix rich" and one with a more traditional, doctor led general practice from Torbay - I am in the process of identifying two practices willing to be involved. The focus group participants will be selected by me spending a morning in each surgery waiting room and asking patients whether they would be prepared to participate in a discussion. Then from the focus group discussions I will devise a semi-structured interview schedule with which I will hold ten interviews with members of the Torbay & District Community Health Council focus group who will be naturally selected. The focus groups and interviews will be held in neutral venue and will be tape-recorded to ensure that the content of the discussion is fully captured.

The themes and issues emerging from the focus groups and interviews will be used to develop a questionnaire to be distributed to a random sample of 500 patients from up to ten Torbay practices prepared to participate in the research.

8. Study design (e.g. cohort, case control)

Combined approach - focus groups, interviews and questionnaires

9. i) How was the size of the study determined?

Sample sizes for focus groups and interviews to be manageable. Sample of 500 from ten practices discussed with supervisors as appropriate.

ii) Was there formal statistical input into the overall study design?

Yes No

If Yes, please give name of adviser: Beryl Badger, Frank Dobbs advised on method

iii) What method of analysis will be used?

Coding to identify concepts and categories from focus groups and interviews. Questionnaire data to be analysed using mainly exploratory data analysis and confirmatory analysis to show differences.

10. Does the study fall into any of the following categories?

Pilot	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Multi-centre study	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Student project	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

If this is a multi-centre study, please complete the details below, otherwise go to Question 11.

i) Which centres are involved?

ii) Which ethics committees have been approached, and what is the outcome to date?

iii) Who will have overall responsibility for the study?

iv) Who has control of the data generated?

11. Where will the study take place and in what setting?

Interviews and focus groups in natural setting, probably CHC offices and local community facilities. Questionnaires will be postal.

12. Is any payment being made, or actively being sought by the investigator or department/unit in respect of this study (include research grants)?

Yes No

If Yes, complete the section below; if No, go to Question 13.

i) Is the payment:

a) A block grant

Yes No

If Yes, give details, including amount and source of funding

£500

Name of funding body: South West Area Research Movement Bursary.....

b) Based on the number of subjects recruited

Yes No

If payment is based on number of subjects recruited (per capita/payment), state total sum payable for each subject completing the study.

£10

State number of subjects agreed.

12

Will patients have their travel costs paid?

Yes No

If multi-centre study, state total number of subjects to be recruited.

ii) Is the payment made in order to:

If Yes state sum

a) Pay a salary(ies)

Yes No

£500

b) Fund equipment

Yes No

£

c) To support further departmental research

Yes No

£

d) Other (state)

Yes No

£NHS rates

To cover travel, child care etc. expenses for focus group participants and interviewees

iii) Who will have control of the funds? eg Charitable Trust etc.

South West Area Research Movement (bursary)

Torbay PCT (out of pocket expenses)

iv) Does the investigator(s) have any direct personal involvement (eg financial, share-holding etc.) in the sponsoring organisation? (If Yes, give details.)

Yes No

Employee of Torbay PCT

13. If the project is to be carried out in a Trust has the R&D lead in the Trust been notified of the project?

Yes No NA

If no/NA give reasons:

14. Schedule

Proposed starting date: May/June 2001

Proposed duration: 4-5 months

15. How will the patients or subjects in the study be selected, approached and recruited; what inclusion and exclusion criteria will be used? STATE IF THEY ARE THE SUBJECT OF THERAPEUTIC OR NON-THERAPEUTIC RESEARCH

Two Torbay practices will be identified as skill mix rich or more traditional using data on the extent of delegation and diversification in the practice. When two practices willing to be involved have been selected, I will sit in the waiting room for a morning to get six willing participants to join a focus group. The CHC health panel members to be interviewed will be those registered with a Torbay GP who wish to be interviewed. I will take a random sample of 500 patients from up to ten Torbay GP practices willing to participate in the study and send them a postal questionnaire.

16. How many subjects will be recruited and of what age group?

The two focus groups will have six members in each, naturally selected, aged 16 and over. Ten CHC panel members will be interviewed from 16 years plus. 500 patients from each practice list in the ten practices will be randomly selected.

17. How will the control group (if used) be selected, approached and recruited; what inclusion and exclusion criteria will be used? Type NA if no controls.

NA

18. How many controls will be recruited and of what age group?

No control group

19. Are the subjects or controls included in this study involved in any other research investigation at the present time?

Yes No Not known

If Yes, please give details.

20. Will healthy volunteers be used?

Yes No

If Yes, complete details below. If No, go to Question 21.

i) What is their relationship to the investigator? There is none

ii) Will they receive any payment, and if so, what is the source of that funding? Yes No

If Yes, give details of payment per subject. Source of funding: Torbay PCT

Payment for interviewees to cover out of pocket expenses. Additional £10 payment for focus group participants. Venue and refreshment costs.

Applicants should undertake to explain to volunteers that the researcher will contact their GP to ask about any drug therapy and that they must inform the researcher if they consult another doctor during the study,

21. Is written consent to be obtained?

Yes No

If Yes, please attach a copy of the consent form to be used.

(Guidance on consent is given in Appendices 1 and 3 in the Guidance Notes.)

If no written consent is to be obtained is it because one of the following methods of research is employed?

Postal questionnaire Yes No

Interview Yes No

Other Yes No

If Other, please justify.

22. Does the study include subjects for whom English is not a first language?

Yes No NA

If Yes give details of arrangement made; if No please justify.

Although there are no resources for interpreters those whose first language is not English may still be included and will be given all the help I can.

23. Are the subjects or controls in one of the following vulnerable groups?

Children under 16 Yes No

People with learning difficulties Yes No

Other vulnerable groups e.g. mental illness, dementia Yes No

If Yes, please complete the details below, otherwise go to Question 23.

- i) What special arrangements have been made to deal with the issues of consent and assent, e.g. is parental or guardian agreement to be obtained, and if so in what form?

It will be difficult to identify and exclude vulnerable groups for interviews and focus groups. Similarly for the random sample it will be difficult to identify and exclude these groups - the parent or carer should return form if person cannot fill it in, stating why.

- ii) In what way, if any, can the proposed study be expected to benefit the individual patient/subject on whom it is performed?

The opportunity to be involved in decision making can be empowering. On a larger scale, a theory about patient attitudes towards skill mix can be used by policy makers to ensure that developments are acceptable to patients and enhance care.

24. Will the patient/subject be given a written information sheet or letter?

(For suggested format see Appendix 2 in Guidance Notes.)

Yes No

If Yes, please attach copy to this application form.

If No, please justify.

25. Does the study involve the use of a new medicinal product or medical device, or the use of an existing product outside the terms of its product licence?

Yes No

If Yes, please complete Annexe A in the Guidance Notes, otherwise go to Question 26.

26. Will any ionising or non-ionising radiation, or radioactive substances or X-Rays be administered to a patient or volunteer?

Yes No

Please ensure information in Q14 includes exclusion criteria with regard to ionising radiation if appropriate.

If Yes, please complete Annexe B in the Guidance Notes, otherwise go to Question 27.

27. What investigations and/or interventions will subjects and/or controls have over and above routine care?

(Please complete the table below by selecting YES/NO options as appropriate. If YES, please give details.)

Investigation

Self completion questionnaires	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Interviews/interview administered questionnaires	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Interview administered questionnaires	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Video/audio tape recording	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Physical examination	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Internal physical examination	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Venepuncture*	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Arterial puncture*	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Biopsy material*	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Other tissue/body sample*	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Imaging investigations (<u>not radiation</u>)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Other investigations not part of normal care	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Additional outpatients attendances	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Longer inpatient stays	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Local anaesthetic	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
General anaesthesia	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Other	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Details:

* If yes, will samples be retained beyond the end of the study for testing for other factors beyond that in this proposal? Yes No

If yes, will samples be anonymised? Yes No

If no, please justify

If additional investigations or tests are involved with revenue consequences for the NHS the relevant head(s) of department(s) **must** be contacted.

Signature of Head of Department Date

NAME IN CAPITALS..... Position.....

28. Are there any ethical problems or considerations that the investigators consider to be important or difficult with the proposed study?

Yes No

If Yes, please give details:

28a. Is it possible that the trial medication will not be available at the end of the trial?

Yes No N/A

28b. If yes, is this made clear in the patient information sheet?

Yes No

If No, give reasons

29. Are there any potential hazards to subjects or patients?

Yes No

If Yes, please give details, and give the likelihood and details of precautions taken to meet them, and arrangements to deal with adverse events and overdoses, including reporting to the relevant authorities.

30. Is this study likely to cause discomfort or distress to subjects/patients?

Yes No

If Yes, estimate the degree and likelihood of discomfort or distress entailed.

31. Will information be given to the patient's General Practitioner (*especially* if a drug is to be given or an invasive procedure is undertaken)?

Yes No

If *Yes*, please enclose an information sheet for the GP.
If *No*, please justify.

If the study is on hospital patients, has the consent of all consultants whose patients are involved in this research been obtained?

Yes No

If the study is in general practice, has the consent of all the partners been obtained?

Yes No

Where available, please enclose an information sheet for consultants or GPs.

Product liability and consumer protection legislation make the supplier and producer (manufacturer) or any person changing the nature of a substance, e.g. by dilution, strictly liable for any harm resulting from a consumer's (subject or patient) use of a product.

32. i) **If you are not a member of staff of an NHS Trust or Health Authority what arrangements have been made to provide indemnification and/or compensation in the event of a claim by, or on behalf of, a subject for negligent harm?**

Employee of Torbay Primary Care NHS Trust

- ii) **What arrangements been made to provide indemnification and/or compensation in the event of a claim by, or on behalf of, a subject for non-negligent harm?**

If applicable, the arrangements involving a drug supplied by a company should conform to the most recent ABPI guidelines on patient indemnity or individual Trust documents.

- iii) **Will a medical student be involved directly in the project?**

Yes No

33. **Has a manufacturer provided any equipment or medical devices?**

(Please indicate NA if not applicable.)

Yes No NA

If Yes, what arrangements have been made with the manufacturer to provide indemnity?

34. i) **Has the relevant Data Protection Officer been notified of the study?** Yes No

Give name of Data Protection Officer: Hazel Crook

- iii) **If No, give reasons**

35. Will the patient's medical records be examined?

Yes No

If Yes, will information relevant to this study **only** be extracted

Yes No

If extra information is extracted, please justify.

What, if any, additional steps have been taken to safeguard confidentiality of personal records?

36. Will the study include the use of any of the following?

Audio/video tape recording

Yes No

Observation of patients

Yes No

If Yes to either,

a) How are confidentiality and anonymity to be ensured?

The audio tape will not be available to anyone other than the researcher or other credible researchers who wish to validate the information from the video tape (the tapes will not be released to other researchers without the permission of all focus group participants and interviewees).

b) What arrangements have been made to obtain consent?

Verbal information given by researcher;

Information sheet

Consent form

c) What will happen to the tapes at the end of the study?

Will keep the tapes as proof to support results.

37. Will medical records be examined by research worker(s) outside the employment of the NHS?

Yes No

If Yes, it is the responsibility of the principal investigator to ensure that research workers understand that they must:

- i) *undertake never to divulge information about patients or research subjects, recorded or otherwise, to anyone without the authority of the Consultant/GP under whose care the patient is;*
 - ii) *also understand that the names, addresses and places of work of patients or research subjects are confidential and must not be divulged.*
-

Please ensure that you complete the check list on the front cover of the application form and enclose all relevant enclosures.

PLEASE REPLY TO:

Torbay Hospital
Hengrave House
Lawes Bridge
Torquay
Devon
TQ2 7AA
Tel: 01803 655701

The Lescaze Offices
Shinner's Bridge
Dartington
Nr Totnes
TQ9 6JE

Tel: 01803 866665
Fax: 01803 867679
Direct Dial: 01803 86

Ms. C. Branson
8 Belfield Rise
Marldon
Paignton
TQ3 1NX

13 June 2001

Dear Ms Branson

Re: Who does what, to whom at the GP Surgery?

Thank you for attending the Ethics Committee last Thursday and for presenting your Project. I am writing to confirm the issues which the Committee has asked you to clarify:-

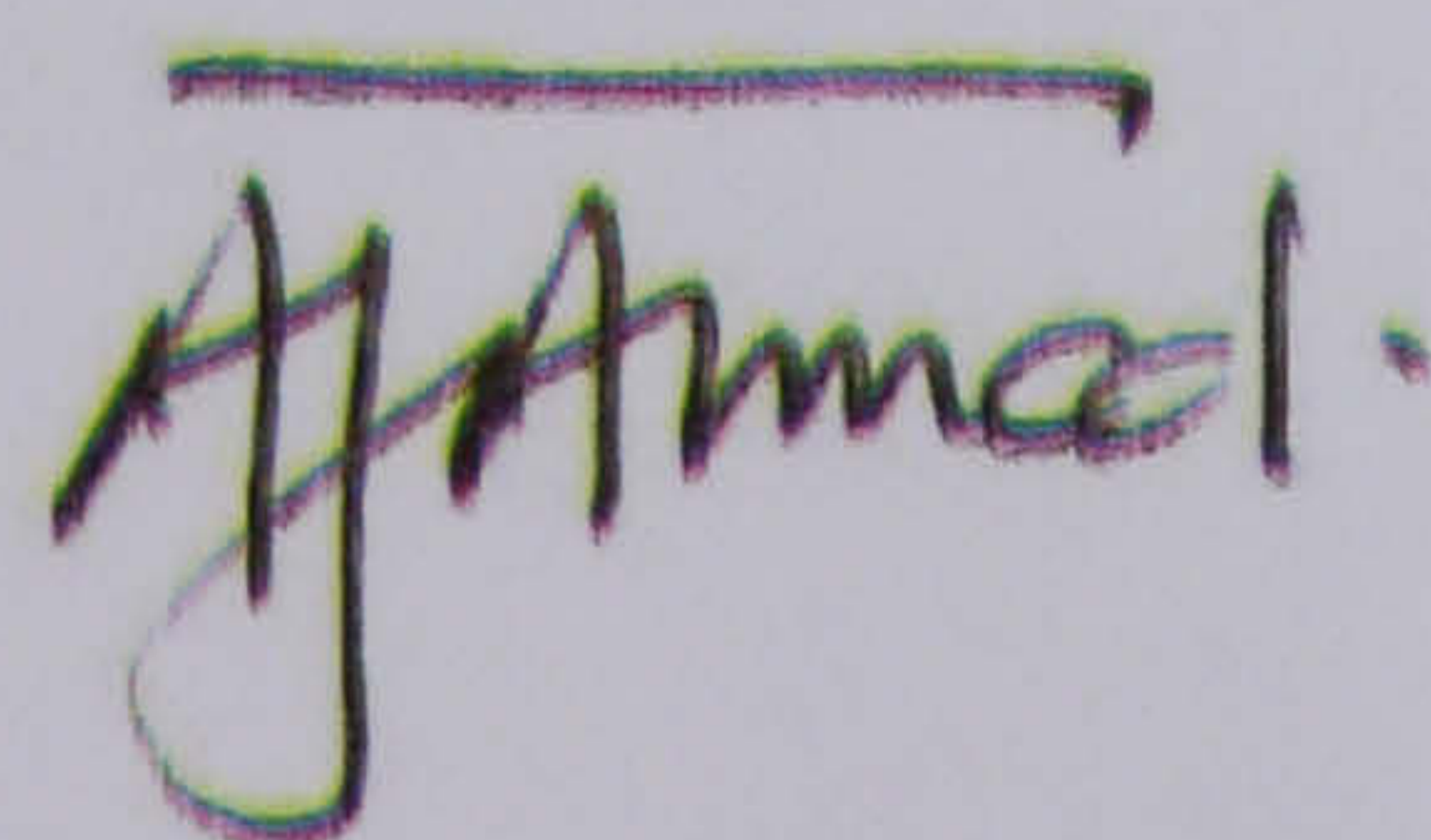
1. that you would remove reference to "access to patients records" which you confirmed was not required.
2. Consent Form and Information Sheet should be on PCT Notepaper.
3. that you will transcribe the tapes and then they will be destroyed – reference to this action should be included in the Consent Form.

With reference to Mr Barton's comments, we noted you had discussed these with your Supervisor and were happy to accept your explanations.

Subject to receiving revised forms, ethical approval will be granted.

I look forward to hearing from you.

Yours sincerely



Dr A.J. Almond
Chairman
Torbay Local Research Ethics Committee

Appendix 13 Letter to patient focus group members

(Torbay PCT headed paper)

Date:-

Dear

**RESEARCH INTO PATIENT VIEWS ON THE INCREASING NUMBER AND TYPES OF HEALTH PROFESSIONALS WORKING ALONGSIDE GPs IN THEIR SURGERIES, AND THE CHANGING ROLES OF THESE HEALTH PROFESSIONALS
(“SKILL MIX IN PRIMARY CARE”)**

Thank you for your time when I met you in Dr x’s waiting room, and for agreeing to take part in a focus group to help me with this research.

You may already have a copy of the patient information sheet, which provides information about the research and how it is to be conducted, but I have enclosed another copy for your information. This study has received ethical approval to take place and as part of the approval, I am required to ask you to sign a consent form; I have enclosed two signed copies of the form. I would be grateful if you could sign both, keep one, and bring the other with you to the group discussion for my records.

I do appreciate that you are giving up your time to help me with this research and, as mentioned before, out of pocket expenses such as travel and child care will be paid. You will also receive a £10 attendance fee. Claim forms will be available for completion at the focus group.

I have now made the arrangements for the focus group as follows:

Venue:

Time to and from:

Date:

If you are unable to attend, I would be grateful if you could let me know as soon as possible.

Yours sincerely

CHRISTINE BRANSON

Appendix 14 Invitation to attend patient interview

(Torbay PCT headed paper)

To: All Torbay residents in the
Torbay & District CHC focus group

Date:- 21/09/01

Dear Sir or Madam:

WHO DOES WHAT, AND TO WHOM, AT THE GP PRACTICE?

- **Research into patient views on the increasing number and type of health professionals working alongside general practitioners, and the changing roles of these health professionals (“skill mix in primary care”)**

When I am not working full-time for Torbay Primary Care Trust, I am a student with the University of Plymouth, undertaking research on skill mix in primary care. I feel that patients' views on changes in the way that health services are organised and delivered are very important so that services develop and are provided in a way that benefits patients, and is considered acceptable by them. However, I have found a gap in the existing research as patients' views on this key National Health Service policy have not been explored, and I feel that it is important that this is addressed.

I am writing to ask for your help, to see if you would agree to be interviewed on this subject, to help me with my research and further knowledge in this area. The information I collect from the interviews, together with the results of focus group discussions already held, will be useful in their own right and also be used to design a questionnaire that will be distributed to 5000 patients of Torbay GPs.

The interviews themselves should last between half an hour and an hour and out-of-pocket expenses will be paid. The interviews will be held at the Torbay & District Community Health Council offices in Newton Abbot, which they have kindly agreed to allow me to use; light refreshments or a lunch, whichever is appropriate, will be available.

For more information, I have enclosed a patient information sheet, which I hope answers any questions you might have. If you do decide to take part, please contact me soon so that we can arrange a date and time for the interview.

Yours faithfully

CHRISTINE BRANSON

Appendix 15 GP cover letter for survey to patients

(GP practice headed paper)

Date:-

Dear

RESEARCH INTO HEALTH SERVICES

“Who does what, and to whom, at the GP practice?” (Patient views on skill mix in primary care)

I/we am/are helping a local NHS employee, Christine Branson, with some research that she is doing for a PhD with Plymouth University. Enclosed with this letter is a short questionnaire that is designed to discover your views on some changes to the organisation and management of general practice services over the last few years. As well as the questionnaire, there is an information sheet which explains the research in more detail and a reply paid envelope for your convenience.

Please note that any queries on the research or the questionnaire should be addressed to the Christine and her details are on the information sheet.

Yours sincerely

Drs xxxx
SURGERY

**BEST COPY
AVAILABLE**

**Variable print
quality**

Appendix 16 Example of analysed transcript

Interview 1

Dr Helen Denkin, 29th April 12.15pm, CCHC

Introduction

Thinking about skill mix developments implemented in your practice, what were the main things that led you to look at skill mix? The main drivers.

OK, um, one practice nurse leaving the realisation that some of the tasks that we were expecting from our practice nurse were not happening, a realisation well I suppose a query on pay levels for practice nurses ... I had a discussion with Sue on what was expected of nurses working at the grade we were paying and looking back they weren't actually working at that level. *Making sure you've got value for money?*

Yes, value for money, yes. Realising that they were working well beneath their skills, for example phlebotomy and looking at who else could do that. The other thing that changed was old die hard receptionists and one was appointed who was interested in developing in phlebotomy. She now wants to do other tasks as well ECGs and the like. *So more of a health care assistant?* Hopefully we'll be able to find the training to train her properly like we were talking about earlier. It's been a while hasn't it - 3 years? I think the other driver maybe was staff appraisal, when we did ask and we actually realised people were working at a certain level. There seemed to be a willingness to take on other tasks.

From the changes you've made, what do you think are the main positive changes that have actually happened? And also, those that you would have liked to have seen but didn't occur?

What's good is that our staff have been trained up to do things that they enjoy, it gives them something extra, patients quite like it; they get to know the girls a bit better sometimes if they are touching them! They are more involved in the clinical side of it. It is rewarding for staff, but it may have left staff with blocks of time when they are sitting doing nothing and we are looking at that on our away-day. Or we have been provided with a list of tasks that are very exhaustive but ... We are looking at that. I don't know whether everything is being recorded as it should be. We are doing a clean up on the data though and we are three months into it which is good. *Is there anything you'd hoped for and hasn't been realised?* There doesn't seem to have been a reduction in the cost! But then again we didn't primarily go out to do that.

We talked about the good things from a change in skill mix. What have been the main difficulties you've encountered in developing it or maintaining it?

It's very slow, slow, the training seems to take ages, you have to wait around for approval for hep Bs the course seems to take months to go through just to take blood, I'm sure it's a very good course though and someone else has put a lot of thought into it. It took a fair amount of time to develop it. And she had to practice injections on us! So a bit of real pain involved! It probably impacted more on nurses time than ours though. But, I don't know, that's the way it is, the way it works. I'm worried about the potential for more, I don't want to ask the nurses to do more that they don't feel competent to do. Have you been able to involve your attached nursing staff to any degree? They have been involved overall, but not with changes about our own staff. One of the groups who I think are left out to some degree are the housebound and they're just not really looked after for CDM so we have been allowing time now

for practice nurses to work with the district nurses following proper diabetic protocols for the housebound. That has improved CDM; that seems to be working well as far as I know but we haven't seen auditable results yet but I am told it's happening I have not been keeping my finger on it. I am having to trust that and ask the practice nurse, who oversees the nursing team as a whole.

The need for good teamwork has been closely linked to skill mix changes how well do you think your primary care team functions? Are there any areas you think the teamwork might improve?

I think we generally do work as a team, and we are small which helps, we have everyone on site which helps, district nurses don't need to make an appointment with us to speak to us, we've got everything on site and I think it works better. I think we do work pretty well as a team.

Thinking about your views now, how important is it for you to work as part of a group where functions and activities are co-ordinated as opposed to working autonomously where you manage your work as you see fit? If you had to choose which is your preferred way of working?

Ah, the first. Working as part of a group? Yes, definitely. Which is why I probably spend my spare time trying to write protocols so we are all singing from the same hymn sheet that's very important. The problem is putting it all in writing, that's the issue. You can say things in passing to one person but you can't get that across to the whole team. But even if you write it all down people don't always follow it. *Why is working in a team more important to you?* Well, we can't do everything that they're asking us to do and there are things that other people do better than me and I am very willing to let them do that. I've got my skills and which is about diagnosis and therapeutics and nurses are good at following protocols. Yes, we can't do everything and you do have to look at having someone else involved. We haven't cut our workload we're just managing all the extra work coming in. Quite the reverse! We do still get quite a lot of people coming to see us though.

To what extent has the desire to concentrate on more complex cases been a driver for skill mix? To reduce trivia? I don't think we have a lot of trivia, I don't think we've shifted an awful lot of trivia, our practice nurses don't do triage, they don't see that as their role, as diagnosis, so we've shifted the CDM but some of that is still incredibly complex and quite time consuming it almost is too much for me, well it is beyond me, never mind beyond the practice nurse, they don't have the therapeutics training or pharmacy background, so we do need more time for those, they take a lot of time.

Are you concerned about being left with lots of complex work as a result of skill mix? I guess I wouldn't mind if it was more complex and the background conditions were running along steadily, I don't suppose it's really a problem.

To what extent are you concerned about the loss of continuity and personal care through skill mix?

Yes I am although in small practices. You just cannot keep an eye on everything that is happening with others, it's management of the disease as opposed to management of the patient. CDM. We're the only people who can put it all together. The more you delegate to someone else, the more difficult it is to keep a handle on the whole patient. It is difficult to take a holistic view.

To what extent are you concerned about the loss of the GP generalist role as a result of skill mix?

I don't know, I don't think I'm terribly concerned, I think the Government are threatening that more with specialisation. But whilst we still have overall responsibility we have to be generalists. I'm not worried about, we don't have to do everything though. I'm not worried about losing skills in, say, taking smears.

To what extent are you concerned about the loss of quality through skill mix?

I'm not, I don't think that it will happen as long as people are trained and competent. It was important to us that quality was maintained or improved through a skill mix change.

Is there anything you'd feel uncomfortable delegating to other professionals?

Lots. Nurses are really trained in diagnosis and therapeutics, well apart from nurse practitioners. Would that include repeat prescribing? I'd delegate that to a pharmacist. Like a shot! Not to a nurse? No, well some of it I would, certain areas you would, but even in CDM these are complex disease and you might get them giving something for hypertension and not realise that it interacts with something else. You have to look at the whole patient. What about some of the issues in the survey which were demand for immediate care and skin complaints? I think that GPs might delegate immediate care to someone trained through the nurse practitioner course but if not they might say "I don't know how to do that" we bought our nurse a stethoscope but she doesn't know how to use it, I've taken cases in which I thought we really good, "listen to this chest" but she can't get it. It's just years and years and years of practice. I don't know what you're going to do about that, you can't delegated things people don't know how to do. It may be that she just didn't want to do that. What about skin complaints? Well, I find that damn difficult, you need special training but if I'm still struggling with it, I could do with more training. I think dermatologists struggle with it to be quite honest. They get things wrong from time to time. So it's the range and complexity of the area? Yes.

Personally, to what extent would you want to pursue a range of clinical interests, providing a new service in the practice or elsewhere, might be through GPST?

Possibly. Again, it would depend if I thought I would add something to the service. The only one I put down on my form was rheumatology that was only because I've done the benefits work you are equipped with that from years of experience. It's quite important. It's often missed it's actually quite a lot of skills to come through the other side. I find it difficult to keep up with. It would be a swap though, I would have to choose to do that rather than be in practice. I don't think I have any other special skills other than that.

Appendix 17 Patient focus groups overview grid

	Focus group 1 - traditional practice	FG 2 - skill mix rich practice	FG 3 - mixed group	General views
General observations	Older people - two women and one man, one ex-practice nurse in group who group asked "professional questions" and was most dominant, from same surgery, very similar views expressed with little dissent.	Older women - two from patient group (one of whom was dominant in the group), one woman had been involved in research herself, from same surgery, very similar views expressed with little dissent.	Mix of men and women - 3:3, mix of age ranges - twenties to sixties, mix of working and non-working 4:2, registered with different practices, lots of in-group discussion and disagreement, questioning each other, two dominant males in group.	First two groups predominantly homogenous - female, same practice, older people; second heterogeneous. Mostly higher social classes. Overall, fewer working people and men. Good mix of various states of health.
General practitioners should carry out surgical procedures, such as endoscopies	Agreed with. Seemed a good idea to reduce workload but some concern over "where you draw the line" (male) although others couldn't say what the limit should be. Feel it's OK as they had confidence in the doctor. Feeling that there wouldn't be a waiting time if seen in practice. Some "off the wall" discussion about nurse training (knowledge/experience). Statement that NPs are like junior doctors.	Disagreed with. Would only have an endoscopy with a GA and therefore wouldn't have it done in surgery - gave example of a friend who insisted on having it under GA (knowledge/perceptions).	con's, which I had to cut short! Training and experience was felt important, although it was noted that experience could only be gained whilst "practising" which may be risky. Comparison with France as preferable health system (man, working status). Concern over the risks of GPs doing it (women). Concern over GPs missing something important - double checks with a specialist were necessary (women, knowledge of healthcare) - although another said if you could be seen sooner, saving time, then you'd know sooner if something was wrong (men, older man). If it's already done by hospital specialists is it too much for GPs to do? GPs would have to specialise in one thing, but if they were doing this they wouldn't be able to see patients in "normal" consultations. GPs doing it would allow more people to be seen though (younger man). Concern over discomfort of procedure and that it was invasive. Some had no problem with GP doing it, as they seemed to trust their GP entirely, some felt they should be overseen by a specialist (both men) and others were not sure at all (women).	No clear view. Small practice agreed, large disagreed and third were divided. It seems that it is based on perception of the procedure as serious or not and confidence in the ability/experience/training of the doctor. An advantage would be reduced waits. Concerns over possible risks, including risk of something being missed, and GPs doing surgical procedures generally. Need specialist involvement still?
Practice nurses should be able to take on more work from the GP, such as prescribing	Agreed with. PN in the group; possibly influenced the group to support this, by reinforcing the depth of nurse training (knowledge/experience). Emphasis on need to still refer to the doctor if not sure. Would fully accept the nurse because she works very closely with the doctor and they communicate because it's a small practice. Unfavourable comparison with large practice made.	Didn't know. Only OK for a repeat and there was doctor review built in. Would depend on medication e.g. aspirin OK (health status). OK if stable on medication as well. Some confusion that whether system was already in place, whether the doctor or nurse did this (knowledge). Would help to reduce GP workload. Discussion seemed to be supportive although still put it in the Don't Know pile.	Agreed with. Initial discussion indicated that this was not a good idea (older man), and some thought they already could prescribe things like Calpol or repeats (women). Complexity and interactions of some drugs were mentioned as concerns and doctors training was felt to be more suitable for prescribing decisions - nurses were often more experienced though (older man). The frequency with which a professional saw patients was key - for this reason GPs and district nurses were felt OK to prescribe. It was mentioned that if nurses could prescribe, more patients could be helped and it was therefore a good thing (younger man). The need to use a "list" was mentioned and nurses would need access to medical records. It was agreed that it was OK depending the drugs weren't too toxic.	Overall <u>some agreement</u> . Confusion over whether nurses already prescribed. Provisos were referral to doctor if not sure, needed to be limited to relatively noncomplex drugs which a person was stable on; the last group felt that knowledge of the patient was also important through frequency of contact. Advantages were more people being seen and reducing GP workload.
Health care assistants should carry out routine procedures, such as taking blood	Didn't know, possibly because they didn't know what a HCA was (knowledge/experience). The practice/doctor would have to endorse the person before they felt comfortable with them - personalised to someone having difficult veins which made taking blood difficult (health status). I gave a summary of their training and they may have been concerned that I said they weren't registered nurses. Statement that doctor would never pass the job on just because he didn't want to do it!	Agreed with. Didn't know what a HCA was (knowledge). Example of diabetic nurse taking blood given (health status). To answer probe of if doctor says you need a blood test would you see NA they agreed.	Agreed with. Didn't know what a HCA was to start with (knowledge). Little discussion needed. Discussion indicated that if they did it in the hospital, it was OK to do in the practice (perceptions). Nurse supervision would be necessary though. Work carried out by HCA was not seen as skilled "anyone could do it".	Overall <u>some agreement</u> . Dependent on how complex the task of blood taking was seen to be 1 and 3 had very different views as groups. No one knew what a HCA was. Supervision from doctor or nurse would be required though.

Appendix 17 Patient focus groups overview grid

	Focus group 1 - traditional practice	FG 2 - skill mix rich practice	FG 3 - mixed group	General views
<p>harmacists would take on work previously carried in the GP practice, such as diagnosis and treatment of minor illnesses</p>	<p><u>Agreed with.</u> Felt that the pharmacist would still need to refer you to the doctor if they weren't sure and there should be good liaison between the two. Within a "limited range", seeing the pharmacist was felt to be OK - they may have responded to my examples of rashes, coughs, colds (health status). Feeling that patients should be responsible for seeking out advice from the right person e.g. don't see the pharmacist with chest pains! Some guilt about seeing the doctor regularly (male). Mention of the new telephone surgeries, which were popular. Two mentioned problems with medication they'd had where the pharmacist had been most helpful and reassuring.</p>	<p><u>Agreed with.</u> Considered useful, not wanting to bother the doctor. Only for minor illnesses though - responded to probe about rashes, coughs and colds (health status). Patient would need to refer to doctor if still worried and the pharmacist should also do this. Considered a good alternative to waiting 10 days to see the doctor. Someone had seen a pharmacist when they couldn't see the doctor (experience).</p>	<p><u>Agreed with.</u> Strong agreement from the start. Advantage of chemists were not having to make an appointment. Repeat prescriptions were mentioned in this context for seeing the chemist directly. Query over this role conflicting with "business" of chemists (working status). One would rather see chemist than doctor who they hadn't seen for 20 years, had a good relationship with his local chemist (younger man). Some concern over limits to OTC medicines (younger woman). Feeling that they were more trained than GPs, particularly in medicines. Considered to be individual discretion whether to go to chemist or doctor. Important that the pharmacist tells you to go to the doctor if they are worried.</p>	<p><u>Strong agreement.</u> Advantages were linked to ease of access and convenience, problems getting into see the doctor/not wanting to bother him. All felt that the patient should be responsible for seeking out advice from an appropriate person. First two groups of mostly older people felt that pharmacist advice should be limited to quite minor things, although the last group didn't feel this. The pharmacist should refer you to the doctor if not sure. All had had experience of seeing the pharmacist, which were favourable.</p>
<p>practice nurses are easier to talk to than general practitioners</p>	<p><u>Disagreed with.</u> Had heard that they were supposed to be, as nurses spent longer doing dressings and similar but felt that doctor was easy to talk to as well.</p>	<p><u>Didn't know.</u> Felt it was dependent on the individual doctor or nurse. Doctor mentioned as very easy to talk to, probably easier than the nurse, but this was because they saw the doctor more often than the nurse (experience). Need to see someone regularly to have a good relationship. Regular contact with diabetic nurse mentioned as positive (health status). Despite strong discussion on preference for doctor, still put it in the don't know pile.</p>	<p>Not discussed.</p>	<p><u>No clear view</u> - people seemed to be happy talking to doctors although it was felt to be dependant on the doctor's personality; the ease of talking to someone seemed to relate to frequency of seeing them and people saw the doctor more than the nurse.</p>
<p>Only GPs should give advice to patients on their illness</p>	<p><u>Agreed with.</u> Will take some advice from others though, like the nurse and pharmacist, but only because they'd tell you to see the GP if they didn't know. Someone thought that advice from the nurse was OK. Contrary to previous discussions on seeing the nurse and pharmacist. Important of background mentioned, when probed (health status).</p>	<p><u>Disagreed with.</u> Initial discussion suggested that yes, only GPs should give advice. Sore throat not regarded as needing advice, advice was for proper illnesses (health status). Couldn't decide what advice meant. Discussion became contrary as Macmillian nurses mentioned as being able to give advice on cancer - stage of illness and specialist training mentioned. Need to have confidence in a qualified person. Mentioned preference to see Sister for womens' problems rather than male doctor. Didn't initially want to commit to saying how they felt about it and kept the card back for later.</p>	<p><u>Disagreed with.</u> Some initial disagreement on whether it should just be GPs who give advice. One felt that he got the best medical advice at the bar (younger man). Some discussion on difference between advice for minor and more serious illnesses (younger woman and man). Assumed that whoever gave advice would refer on if concerned anyway; some concern that they wouldn't know when to refer on (man). Noted that if they agreed with this, it would contradict previous statements, which ended the discussion.</p>	<p><u>Some disagreement.</u> A lot of confusion on "advice" and discussion on whether it was OK, and some contradictory responses given previous views. It was important that whoever else gave advice would refer you to the doctor if they weren't sure, the severity of the illness was again considered important and whoever gave advice, you needed to have confidence in them and that they were specialists and qualified.</p>

Appendix 17 Patient focus groups overview grid

	Focus group 1 - traditional practice	FG 2 - skill mix rich practice	FG 3 - mixed group	General views
<i>It should be easier to get an appointment with health professional</i>	<p><u>Disagreed with.</u> Compared their situation with their friends and families who had negative experiences; waiting 3 days to see a HCA was mentioned. 3 days considered a long time for a BP check when it was stated that anyone could do it! Mentioned being seen for urgent appointments on same day. Routine investigations with nurse also considered OK.</p>	<p><u>Agreed with.</u> Strong consensus on difficulty of getting an appointment and the need for it to be easier. Would see anyone not to wait too long, especially if worried and need reassurance. All would prefer to see a nursing assistant rather than wait to see GP.</p>	<p><u>Agreed with.</u> Strong agreement from the start. To probe on who they'd be prepared to see, they would see nurse or HCA as long as they referred them to the GP if concerned. Some concern that this wasted your time though, if you had to go in twice (man), although another said it could save time if you only needed to see them (woman). Desire to see nurse tomorrow rather than GP in two weeks (working man). Following probe, HCA would be OK too, as long as you could be seen very quickly - next day (working man). Mention made of open surgeries, although no view on whether they were good or bad (non-working woman). Patient choice felt to be important (working man). Receptionists mentioned as a barrier, and agreed with by all.</p>	<p><u>Some agreement.</u> Those in the smaller practice with limited skill mix didn't find it a problem and mentioned that friends in other practices did have problems! The other groups did find it a problem and there was strong agreement from both on this and they would both see anyone, mentioned nurses and HCAs, for an appointment sooner - even the elderly. If you did see someone else, they should still refer you to a GP if concerned. Time was mentioned as a concern for working people. There seemed to be an issue that you would expect to see someone "junior", such as a HCA, very quickly: 1-2 days was mentioned. The last group mentioned receptionists as a problem in getting an appointment.</p>
<i>There should be more choice about which health professional you can see</i>	<p><u>Disagreed with.</u> Didn't want more choice - happy to see the doctor or nurse, weren't bothered about access to the counsellor/physiotherapist or similar - the doctor would refer you if he thought it was necessary.</p>	<p><u>Agreed with.</u> Didn't understand the statement initially. Needed lots of examples. Avoided examples given and stated that alternative therapies would be good (level of education, age, gender). Some confusion on whether there was already a physiotherapist at the surgery; someone else said that a physiotherapist had made them worse and that a chiropractor would be better (experience). Feeling that if an alternative practitioner was based in the surgery they would be qualified and OK.</p>	<p>Not discussed.</p>	<p><u>No clear view.</u> The smaller practice didn't have and didn't want - more choice; the doctor and his decisions were fine for them. The skill mix practice mentioned that alternative practitioners would be good and sensed that if there were in the practice they would be credible. They were unclear about the existing services at their practice.</p>
<i>The appointment length should be longer</i>	<p><u>Disagreed with.</u> The appointment length with the doctor and nurse always felt fine, never felt hurried.</p>	<p><u>Disagreed with.</u> Wondered what the "norm" is. Experiences indicated they'd been seen for quite a long time e.g. 15 minutes. Concern that the appointment system couldn't cope with 15 minute appointments. One person did want to spend longer with the GP although the surgery didn't seem to rush things. Mentioned previous practice, original doctor spent ages but the replacement was very brisk so moved to this practice (experience). Identified GPs might get fed up with people who go in regularly. Strong feeling that doctors were professional and would adjust length if needed.</p>	<p><u>Disagreed with.</u> Flexibility of appointment systems mentioned initially with some taking more than 10 mins and some taking less. Some feeling that 10 minutes wasn't really long enough (older man) and others felt it was about right or too long (younger woman). HCA mentioned as diversifying to free up time. Mentioned that some people need longer if they can't communicate well (older man). Doctor decision on the length of time needed was felt to be the best way of managing it.</p>	<p><u>Strong disagreement.</u> Nearly everyone felt they got enough time and trusted doctors in particular to give them the time necessary to the illness they had. Some realisation that more time with the professional meant less appointments and the current "flexible" system was mentioned as generally OK. No concern with nurse appointment length discussed.</p>

Appendix 17 Patient focus groups overview grid

	Focus group 1 - traditional practice	FG 2 - skill mix rich practice	FG 3 - mixed group	General views
<p>It's become more difficult to know what each health professional does</p>	<p><u>Disagreed with.</u> They felt confident that they knew what the doctor and nurse did - there was no one else to worry about, they felt they knew who to see for what.</p>	<p><u>Disagreed with.</u> Felt that it didn't matter as long as they looked after you. Felt OK with knowing what doctors and nurses did but following probe, wouldn't know which to ask for on ringing except to see a nurse for BP. Wouldn't want to waste doctor time with BP. Would want the doctor if they felt really ill. Relied on receptionists to help identify who to see.</p>	<p><u>Agreed with.</u> Initial discussion showed that it was very difficult to know what people in hospitals did. GP specialists, with each one focusing on an area was mentioned (working man). Felt to be even more difficult to know what nursing staff did (older man). Receptionists mentioned again as not helpful (young woman), with one wanting to be managed by a trained nurse like in the private sector (working man). Receptionists should be better trained, particularly to know who to direct patients to. Health background/qualifications mentioned again in respect of a practice manager (working man).</p>	<p><u>Some disagreement.</u> However, on probing those who did think they knew really only referred to doctors and nurses. There seemed to be a sense that it didn't really matter if you don't know what they do. Receptionists were mentioned as key to helping people in this, although the latter group felt that they were generally poor and wouldn't be able to do this - a trained nurse was suggested as an alternative by them. As well as confusion over the roles of different professionals, the last group mentioned areas of specialism within the same profession as well - it was difficult to know who was best to see for what.</p>
<p>It's become more difficult to know which health professional to see at each visit</p>	<p><u>Disagreed with.</u> Didn't know what health professionals meant. Felt that they knew what people did and who to see because of small size of practice. The doctor would say if you needed to see someone else. Avoided question about knowing who to see when ringing up. Happy to see the nurse though as she will liaise with the doctor.</p>	<p><u>Disagreed with.</u> Very little discussion and linked to last one.</p>	<p>Not discussed.</p>	<p><u>Disagreement.</u> This was closely linked to the last one and probably therefore irrelevant to an extent. However, the first group felt that they were OK because of small size of practice although those from the larger practice had the same views in that they disagreed as well! The doctor was indicated as someone who would signpost you in the system; not the receptionist.</p>
<p>It's becoming more difficult to build a relationship with a health professional</p>	<p><u>Disagreed with.</u> Statement that even in a short time of being registered a good relationship had been formed. Negative comparison with previous large practice made. Some concern raised about counsellors, not wanting to see one, even if the doctor suggested it (male, elderly).</p>	<p><u>Disagreed with.</u> Couldn't remember a personal experience of this. Following probe, the same GP was generally seen at each visit unless there was long wait. Own GP could "check you over." Little experience of seeing the nurse to compare with.</p>	<p>Not discussed.</p>	<p><u>Disagreement.</u> Although a member of the small practice compared relationship building unfavourably with a large practice, those from a large practice didn't seem to have found a problem - this practice did operate personal lists though. Tended to focus on relationship with doctor, not nurse, and this may be because there was little experience to base it on?</p>
<p>It is important to be able to see the same health professional each time you go to the practice</p>	<p><u>Agreed with.</u> Related to size again. Even the locum that comes in is the same one. Continuity referred to. It was felt to be important to see the same doctor and nurse.</p>	<p><u>Agreed with.</u> This was felt to be important, subject to their availability. Hints at bygone days/ideal world when it was just one doctor you could see (expectations). Reference to mother having SH GP - seen as very unusual! Felt that if you bothered to ring the surgery to see the doctor it must be important but would go with anyone, as no other choice (health status).</p>	<p><u>Agreed with.</u> Professional knowing your history was mentioned as important, as was "experience." Lack of continuity with practice nurses mentioned as particularly difficult (young woman). People wanted it but didn't seem to get it although following probe someone saw who they wanted within 48 hours, which the rest of the group didn't.</p>	<p><u>Strong agreement.</u> Although everyone wanted this, it was really only those in the small practice who seemed to consistently receive it. Mention if of it being "an ideal", and someone from the large practice did mention a family member who was seen by a single handed GP which was considered unusual. The latter group felt that it was important to see the same person as they knew your history and had experience. Difficulties seeing the same practice nurse were alluded to in group three.</p>

Appendix 17 Patient focus groups overview grid

	Focus group 1 - traditional practice	FG 2 - skill mix rich practice	FG 3 - mixed group	General views
<i>Most health services should be available at the practice</i>	<p><u>Disagreed with.</u> Didn't want more services at the practice, didn't feel there was enough space, it was better to make a choice and go and see the people when you need them, possibly different in a rural area? Didn't think it was far to the hospital anyway.</p>	<p><u>Agreed with.</u> Mentioned chiropractor again. Probed to consider wider - advice, social services. Confusion over whether a social worker was already at the surgery. Felt to be more convenient, and not having to go to Torbay hospital was mentioned. Waiting times at Torbay were a problem and it was perceived that with procedures at the surgery you wouldn't have to wait. Dietetics mentioned as particular example. Advised by BDA to see a dietitian so now one else would do! Contradictory to the "endoscopies" statement.</p>	<p>Didn't know (or disagreement in group). Feeling that some things should still be done in hospital, particularly surgical procedures but this wasn't defined. Needed probes on other types of things that could be provided - physiotherapy and dietetics offered. And ignored! ECGs mentioned as being done in practice but a specialist should still interpret it (younger woman). Some related discussion on services in France where it is "private" but you get 80% of the cost back (working man). Probe on advice services. Anecdote of local surgery having an unsuccessful advice service, in terms of attendance, for a few years (working man). Social services felt to be awful and shouldn't be at the surgery (older man). A linked pharmacy was mentioned else where in the town and felt to be a good idea (woman). Parking mentioned as a concern it lots of services moved to the surgery (woman). Long discussion on chiroprody being a good idea, but only a few people like diabetics and older people can access it (younger woman and working man). Doctor deciding where to refer you mentioned, with maximum</p>	<p>No clear view. Those in the small practice felt it would intrude on the small practice ethos, it would "lose something" - building limitations were mentioned by them and the last group as well. Geography was also mentioned - Torbay is urban and densely populated and travelling distances are short. Avoiding long waits mentioned as an advantage. Simple tests (ECG) mentioned as a possibility, but a "specialist" should review them. Feeling that the extra services provided in primary care were the wrong ones - physiotherapy, social services and advice all mentioned in negative ways. The things people did want weren't there - alternative therapies, chiropractors, chiropody, dietetics (to be available to all these may be privately provided and this was mentioned positively by the last group). A linked pharmacy was mentioned as useful. Patient and doctor choice on who you could see was felt important by the last group - regardless of private/public provision.</p>
<i>Other issues raised ...</i>	<p>Written comments. Concern over limited surgery space and the effect on privacy. Mentioned "special centres" to take some of this forward. Concerned over financial disadvantages to the NHS? Coordination and supervision might be difficult. Acknowledgement that there must be a wealth of skills not being used. (Likely to be influenced by talking with daughter, a nurse)</p>	<p>Lots of post card discussions. Concern over Torbay hospital messing up paperwork for major operation and long waits. Query whether services would really come to practices ... hadn't seen evidence to date. Walk-in centres felt to be good, no waiting, minor illnesses, open Saturdays, good for working people. People had told someone that the surgery was too big - older ones and men didn't like it. Saturday morning surgeries - some confusion on what they were for. Out of hours care difficult - doctors coming from Plymouth and community hospital closed OOH.</p>	<p>Ad-hoc discussion during and after group. It was mentioned that one man got seen so quickly because he was known to be a bit of a pain. Another gave a related anecdote that they had tried to get in to see the doctor, who they seldom saw anyway, and they were all "at a conference." Offered chance to see a locum, but had already seen one once about the problem which was still there - told to ring back next day for a same day appointment. Did and was told he would have to wait a few days. Put through to nurse telephone clinic and "talked up the symptoms" and got seen same day, at last. Felt it was poorly managed and he seldom sees the doctor anyway so why was it so difficult?</p>	
<i>General views</i>	<p>A doctor focused group, who are confident and satisfied with him. The involvement of the nurse and pharmacist is accepted because of good communication and liaison with the doctor - this is possibly because it's a small practice. Large practices were mentioned negatively throughout. They felt they knew what the doctor and nurse did and didn't want other services/people at the practice it would be confusing and where would they go? Other services should be in "special centres". Patient choice about who to see for what was important.</p>	<p>Severity of illnesses was mentioned as important in decisions on delegation/diversification. There was quite a lot of confusion over the services already at the practice and who to see for what - comments that they hadn't seen more services come into practices. Acceptance of skill mix because of not wanting to bother the doctor and his workload although felt they had little to say about nurses as they were seen infrequently. Concerned about access and waiting times. Convenience was mentioned as important for being seen with minor problems.</p>	<p>Training and experience for people taking on new roles was most important - the involvement of "specialists" should still be available. Some concern over the inefficiency of NHS - more people should be seen, more quickly and the private sector and French system were mentioned as better ideas. Unclear on existing prescribing rules - thought that pharmacists and nurses could prescribe. Receptionists mentioned as a big problem. Choice for the patient and doctor were felt to be important and possible with involvement of private sector? Lots of comparisons with what goes on in hospital. Severity of illnesses/complexity of issues important determinant in skill mix changes. Would want to be referred on if saw someone else and they were worried.</p>	

List of references/bibliography

References

Al-Bashir M, Armstrong D (1991) "Preferences of healthy and ill patients for style of general practitioner care: implications for workload and financial incentives under the new contract", *British Journal of General Practice*, 41, pp.6-8

Alford R (1975) *Health Care Politics*, Chicago: University of Chicago Press

Allen D, Leavey R, Marks B (1988) "Survey of patients' satisfaction with access to general practitioners", *Journal of the Royal College of General Practitioners*, 38, pp. 163-165

Altman and Bland (1998) "Generalisation and extrapolation", *BMJ*, 317, pp. 409-410 (<http://bmj.bmjournals.com/cgi/content/full/317/7155/>)

Anglia and Oxford NHSE. *The UK NHS R&D Strategy: Skill Mix.* (<http://libsun1.jr2.ox.ac.uk/nhserdd/aordd/policy/skillmix.htm>)

Antrobus S (1997) "An analysis of nursing in context: the effects of current health policy" *Journal of Advanced Nursing*, 25, pp. 447-453

Arber S, Sawyer L (1981) "Changes in general practice: do patients benefit?" *BMJ*, 283, pp. 1367-1370

Aronson J (1994) "A Pragmatic View of Thematic Analysis" *The Qualitative Report*, 2 (1) (<http://www.nova.edu/ssss/QR/BackIssues/QR2-1/aronson.html>)

Atkin K, Lunt N (1996) "The role of the practice nurse in primary health care: managing and supervising the practice nurse resource" *Journal of Nursing Management*, 4, pp. 85-92

Attree M (2001) "A study of the criteria used by healthcare professionals, managers and patients to represent and evaluate quality of care" *Journal of Nursing Management*, 2001, 9, pp. 67-78

Audit Commission (2001) *Specification for a project on General Practice*, Wetherby: Audit Commission

Audit Commission (2002) *A Focus on General Practice in England*, Wetherby: Audit Commission

BMA (2003) *Investing in general practice, The new general medical services contract*, <http://www.bma.org.uk/ap.nsf/Content/investinggp>

Bailey J, Black M, Wilkin D (1994) "Specialist outreach clinics in general practice", *BMJ*, 308, pp. 1083-1086

Baker R (1990) "Development of a questionnaire to assess patients' satisfaction with consultations in general practice", *British Journal of General Practice*, 40, pp. 487-490

Baker R (1996) "Characteristics of practices, general practitioners and patients related to levels of patients' satisfaction with consultations", *British Journal of General Practice*, 46, pp. 601-605

Baker R, Streatfield J (1995) "What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction", *British Journal of General Practice*, 45, pp. 654-659

Barber R (1998) "Pharmacists in the primary health care team", *Nursing Times*, 84 (20), p. 52

Barber P, Backhouse S, Timon S, Lawrence C, Seamark D (2001) "Comparison of traditional GP oral anticoagulation management with nurse-led service involving near-patient testing and computerized decision support" *Primary Health Care Research and Development*, 2 (3), pp. 149-157

Barclay S, Todd C, Finlay I, Grande G, Wyatt P (2002) "Not another questionnaire! Maximising the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs" *Family Practice*, 19 (1), pp. 105-111

Bhopal R (1994) "Skill mix in primary care", *BMJ*, 309, pp. 195-196

Biggs S (1997) "Interprofessional Collaboration: Problems and Prospects" *Interprofessional Working for Health and Social Care*, Hampshire: Macmillan Press Ltd.

Black M, Leese B, Gosden T, Mead N (1997) "Specialist outreach clinics in general practice: what do they offer?" *British Journal of General Practice*, 47 (22), pp. 558-561

Blum L, Peltó P, Peltó G, Kuhnlein H (1992-1994) Community Assessment of Natural Food Sources of Vitamin A - Guidelines for an Ethnographic Protocol *Nutrition and Anthropology*:
<http://www.unu.edu/unupress/food2/UIN02E/uin02e00.htm#Contents>

Bond J, Cartlidge A, Gregson B, Barton A, Philips P, Armitage P, Brown A, Reedy B (1987) "Interprofessional collaboration in primary health care", *Journal of the Royal College of General Practitioners*, 37, pp. 158-161

Bond S, Thomas L (1992) "Measuring patient satisfaction with nursing care", *Journal of Advanced Nursing*, 17, pp. 52-63

- Boothroyd Brooks M (1973) "Management of the team in general practice", *Journal of the Royal College of General Practitioners*, 23, pp. 239-252
- Boud D, Keogh R, Walker D (1985) *Reflection: Turning Experience into Learning*, London: Kogan Page
- Bower P, Roland M, Campbell J, Mead N (2003) "Setting standards based on patients' views on access and continuity: secondary analysis of data from the general practice assessment survey" *BMJ*, 326 (7383) 258
- Bowling A (1981) *Delegation in general practice A study of doctors and nurses*, London: Tavistock Publications Ltd.
- Bowling A (1997) *Research methods in health: investigating health and health services*, Buckingham: Open University Press
- Brearley S (1990) *Patient participation: the literature*, Middlesex: Scutari Press
- Brooks K, Phillips D (1996) "Do women want women health workers? Women's views of the primary health care service", *Journal of Advanced Nursing*, 23, pp. 1207-1211
- Brooks N et al (2001) "Nurse prescribing: what do patients think?" *Nursing Standard*, 15 (17), pp. 33-38
- Brown S, Grimes D (1995) "A Meta-Analysis of Nurse Practitioners and Nurse Midwives in Primary Care", *Nursing Research*, 44:6, pp. 322-339
- Bryman A (2001) *Social Research Methods*, Oxford: Oxford University Press
- Buchanan D, Badham R (1999) *Power, Politics and Organizational Change: Winning the Turf Game*, London: Sage Publications
- Burns C (1969) "An anatomy of general practice", *Journal of the Royal College of General Practitioners*, 17, pp. 137-143
- Campbell J, Ramsay J, Green J (2001) "Practice size: impact on consultation length, workload, and patient assessment of care" *British Journal of General Practice*, 51, pp. 644-650
- Casey N, Smith R (1997) "Editorials: Bringing nurses and doctors closer together", *BMJ*, 314, p. 617
- Chambers N (1998) *Nurse practitioners in primary care*, Oxford: Radcliffe Medical Press
- Chapple A, Rogers A, Macdonald W, Sergison M (2000) "Patients' perceptions of changing professional boundaries and the future of 'nurse-led' services", *Primary Health Care Research and Development*, 1, pp. 51-59

Chapple A (2001) "Two years' experience of a nurse-led pilot scheme: patients' perceptions" *Primary Health Care*, 10 (10) pp. 14-17

Chapple A, Sibbald B, Rogers A, Roland M (2001) "Citizens' expectations and likely use of a NHS Walk-in Centre: results of a survey and qualitative methods of research" *Health Expectations*, 4, pp. 38-47

Charles-Jones H, Latimer J, May C (2003) "Transforming general practice: the redistribution of medical work in primary care" *Sociology of Health and Illness*, 25 (1), pp. 71-92

Christensen C, Abbot A (2000) "Team decision making", in Chapman G B, Sonnenberg F A, *Decision Making in Health Care: Theory, Psychology and Applications*, Cambridge: Cambridge University Press, pp.267-285

Clayson M (1993) "Primary health care teams", *The Practitioner*, 237, pp. 819-823

Cockcroft A, Bagnall P, Heslop A, Anderson N, Heaton R, Batstone J , Allen J, Spencer P, Guz A (1987) "Controlled trial of respiratory health worker visiting patients with chronic respiratory disability", *British Medical Journal*, 294, pp. 225-228

Cole A (2001) "Going to the devil" *Health Service Journal*, January, p. 24-25

Coolican H (1992) *Research Methods and Statistics in Psychology*, London: Hodder and Stoughton

Collins D (2000) "The Nature of Management", *Management Fads and Buzzwords: Critical-Practical Perspectives*, London: Routledge

Concato J, Feinstein A (1997) "Asking Patients What They Like: Overlooked Attributes of Patient Satisfaction with Primary Care", *The American Journal of Medicine*, 102, pp. 399-406

Cook M (2001) "The attributes of effective clinical nurse leaders" *Nursing Standard*, 15 (35), pp. 33-36

Coulter A (1995) "Shifting the balance from secondary to primary care" *BMJ*, 311, pp. 1447-1448

Creswell J (1998) *Qualitative inquiry and research design*, California: Sage Publications

Crombie I, Davies H (1996) *Research in health care: design, conduct and interpretation of health services research*, Chichester: John Wiley and Sons Ltd

Crow R, Gage H, Hampson S, Hart J, Kimber A, Storey L, Thomas H (2002) *The measurement of satisfaction with healthcare: implications for practice from a systematic review of the literature*, Health Technology Assessment, 6 (32)

Dash P, Gowman N, Traynor M (2003) "Increasing the impact of health services research" *BMJ*, 327, pp. 1339-1341

Degeling P, Maxwell S, Kennedy J, Coyle B (2003) "Medicine, management, and modernisation: a "danse macabre"?" *BMJ*, 326, pp. 649-652

Denis J L, Lamothe L, Langley A, Valette A (1999) "The struggle to redefine boundaries in health care systems" *Restructuring the Professional Organisation*, London: Routledge

Denscombe (1998) *The Good Research Guide*, Buckingham: Open University Press

Denzin N, Lincoln Y (1994) *Handbook of Qualitative Research*, Thousand Oaks: Sage

Department of Health (1989) *Working for Patients*, London: HMSO

Department of Health (1997) *The new NHS modern, dependable*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (1999) *National surveys of NHS patients: general practice 1998*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2000) *The NHS plan: a plan for investment, a plan for reform*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2001) *Involving Patients and the Public in Healthcare: A Discussion Document*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2001) *Research Governance Framework for Health and Social Care*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2002) *Chief Nursing Officer's 10 key roles for nurses*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2002) *Statistics for General Medical Practitioners in England, 1991-2001*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2002) *National surveys of NHS patients: General Practice 2002*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2003) *Supplementary prescribing by nurses and pharmacists with the NHS in England: a guide for implementation*, <http://www.dh.gov.uk/PublicationsAndStatistics/>

Department of Health (2004) *Patient and public Involvement in health: The evidence for policy implementation*, <http://www.dh.gov.uk>

Department of Health (2004) *Expenditure on the NHS*, http://www.performance.doh.gov.uk/HPSSS/TBL_E2.HTM

Department of Health (2004) *Practice based commissioning: Engaging practices in commissioning*, <http://www.dh.gov.uk>

Department of Health (2006) *NHS Service Delivery and Organisation R&D Programme*, <http://www.sdo.lshtm.ac.uk/>

Department of Health (2006) *Contractual framework for community pharmacy*, <http://www.dh.gov.uk>

Diabetes Integrated Care Evaluation Team (1994) "Integrated care for diabetes: clinical psychological and economic evaluation", *BMJ*, 308 (6938) pp. 1208-1212

Dobson R (1999) "Patients satisfied with nurse run practices", *BMJ*, 319, p. 728

Dobson R (2001) "Specialist GPs must not undermine the value of generalism", *BMJ*, 322, pp. 1270

Drury M, Greenfield S, Stilwell B, Hull F (1988) "A nurse practitioner in general practice: patient perceptions and expectations", *Journal of the Royal College of General Practitioners*, 38, pp. 503-505

Dyke B (1984) "CPNs and the primary care team attachment", *Nursing Times*, 80 (8) pp. 55-57

Easterby-Smith M, Thorpe R, Lowe A (1991) *Management Research: An Introduction*, London: Sage Publications

Edwards M (2000) "Don't ignore the power of teams in building local health services", *Primary care report*, July, pp. 9-30

Edwards N, Marshall M, McLellan A, Abbasi K (2003) "Doctors and managers: a problem without a solution?" *BMJ*, 326, pp. 609-610

English T (1997) "Personal paper: medicine in the 1990s needs a team approach", *BMJ*, 314, p. 661

Entwistle V, Renfrew M, Yearley S, Forrester J, Lamont T (1998) "Lay perspectives: advantages for health research" *BMJ*, 316, pp. 463-466

Eve R, Hodgkin P, Quinney D, Waller J (2000) *What do practice nurses do? A study of roles, responsibilities and patterns of work*, Sheffield: Centre for Innovation in Primary Care

Fall M, Walters S, Read S, Deverill M, Lutman M, Milner P, Rodgers R (1997) "An evaluation of a nurse-led ear care service in primary care: benefits and costs", *British Journal of General Practice*, 47, pp. 699-703

Farrell J (2000) "Careers without tiers", *Health Service Journal*, June, p. 30

Fink A (2002) *The Survey Handbook*, Thousand Oaks: Sage Publications

Fitzpatrick R (1991) "Surveys of patient satisfaction: I - Important general considerations", *BMJ*, 302, pp. 887-889

Forum on Teamworking in Primary Healthcare (2000) *Teamworking in Primary Healthcare - Realising shared aims in patient care. Final Report*, London: Royal Pharmaceutical Society of Great Britain and the British Medical Association

Fox E, Gibson R, Goss B, Kelly G (1994) "Task group on primary care nursing" in *GMSC annual report*, p. 72-75

Flynn R (1999) "Managerialism, professionalism and quasi-markets", *Professionals and the New Managerialism in the Public Sector*, Buckingham: Open University Press, pp. 18-36

Freeman G, Richards S (1993), "Is personal continuity of care compatible with free choice of doctor? Patients' views on seeing the same doctor", *British Journal of General Practice*, 43, pp. 493-497

Freeman G, Hjortdahl P (1997) "What future for continuity of care in general practice?" *BMJ*, 314 (7098): 1870

Friesen D (1996) "Skill mix literature review", *Healthcare Management Forum*, 9 (2), pp. 48-52

Fugelli P, Heath I (1996) "The nature of general practice" *BMJ*, 312, pp. 456-457

Fulop N, Allen P, Clarke A, Black N (2001) "Issues in studying the organisation and delivery of health services" *Studying the Organisation and Delivery of Health Services*, London: Routledge, pp. 1-23

Freeman G, Horder J, Howie J, Hungin A, Hill A, Shah N, Wilson A (2002) "Evolving general practice consultation in Britain: issues of length and context", *BMJ*, 324, PP. 880-882

Galvin K, Sharples A, Jackson D (2000) "Citizens Advice Bureaux in general practice: an illuminative evaluation" *Health and Social Care in the Community*, 8 (4), pp. 277-282

Gardiner P (2004) *An Introduction to Qualitative Research*, Plymouth and South Devon RDSU: Presentation

Georgian Research Society (1991) "The attitude of general practitioners towards practice nurses: a pilot study", *British Journal of General Practice*, 41, pp. 19-22

Gibbs A (1997) "Focus groups" *Social research update* <http://www.soc.surrey.ac.uk/sru/SRU19.html>

Gibbs, I., McGaughan, M., Griffiths, M. (1991) "Skill mix in nursing: a selective review of the literature" *Journal of Advanced Nursing*, 16, 242-249

Gillam S, Ball M, Prasad M, Dunne H, Cohen S, Vafidis G (1995) "Investigation of benefits and costs of an ophthalmic outreach clinic in general practice" *British Journal of General Practice*, 45, pp. 649-652

Gillam S, Levenson R (1999), "Editorial - Linkworkers in primary care. An untapped resource", *BMJ*, 319, p. 1215

Goldberg D, Jackson G, Gater R, Campbell M, Jennett N (1996), "The treatment of common mental disorders by a community team based in primary care: a cost-effectiveness study", *Psychological Medicine*, 26, pp. 487-492

Gosden T, Black M, Mead N, Leese (1997) "The efficiency of specialist outreach clinics in general practice: is further evaluation needed?" *Journal of Health Services Research & Policy*, 2 (3), pp. 174-9

Gravelle H, Bojke C (2001) "Substituting pharmacists for GPs" *CHE News*, 13, pp. 3-4

Gray J (1982), "The effect of the doctor's sex on the doctor-patient relationship", *Journal of the Royal College of General Practitioners*, 32, pp. 167-169

Gray A, Jenkins B (1993) "Markets, managers and the public service: The changing of a culture" in P Taylor-Gooby and R Lawson (ed.) *Markets and Managers*, Buckingham: Open University Press

Greco M (2000) "Assessing the quality of communication using patient feedback" *Clinical Governance Bulletin*, 1 (3), pp. 4-5

Greenberg J, Baron R (1997) *Behaviour in Organisation*, Prentice Hall: Englewood Cliffs, NJ

Greener M (2000) "Patient choice stokes demand for primary care counselling services" *Primary Care Report*, December, pp. 12-15

Greenwood, R, Hinings C, Brown J (1990) 'The P2 Form of Strategic Management: Corporate Practices in the Professional Partnership', *Academy of Management Journal* 33: 725–755

Gregory S (2002) "What is primary care?" *NAPCE Newsletter*, 11

Griffiths F (2000) "Use of general practice data in understanding outcomes in primary care" *Complexity and General Practice Workshop*, London 16th June

Grogan S, Conner M, Wilits D, Norman P (1995), "Development of a questionnaire to measure patients' satisfaction with general practitioners' services", *British Journal of General Practice*, 45, pp. 525-529

Gummesson E (1991) *Qualitative Methods in Management Research*, Newbury Park: Sage

Gupta R, Gupta S (2002) "Nurse practitioners increase access to quality health care for many patients", *BMJ*, 325, p. 166

Guthrie B, Wyke S (2000), "Does continuity in general practice really matter?", *BMJ*, 321, pp. 737-736

HM Treasury (2004) *Public Expenditure Statistical Analyses 2006*, <http://www.hm-treasury.gov.uk/index.cfm>

Haggerty J, Reid R, Freeman G, Starfield B, Adair C, McKendry R (2003) "Continuity of Care: a multi-disciplinary review" *BMJ*, 327, pp. 1219-1221

Halliwell S, Sibbald B, Rose S (1998), *A bibliography of skill mix in primary care the sequel*, Manchester: National Primary Care Research and Development Centre

Hasler J (1992) "The primary health care team: history and contractual farces", *BMJ*, 305, PP. 232-4

Hassell K, Noyce P, Rogers A, Harris J, Wilkinson J (1997) "A pathway to the GP: the pharmaceutical 'consultation' as a first port of call in primary health care" *Family Practice*, 14 (6), pp. 498-502

Hassell K, Rogers A, Noyce P (2000) "Community pharmacy as a primary health care resource: a framework for understanding pharmacy utilization" *Health and Social Care in the Community*, 8 (1), pp. 40-49

Heywood P (2000) "The changing character of service provision", *Contemporary primary care: the challenges of change*, Buckingham: Open University Press

Higgins J, Green S (2005) *Cochrane Handbook for Systematic Reviews of Interventions*, Chichester: John Wiley & Sons, Ltd.

Hilton R (1995) "Fragmentation within interprofessional work. A result of isolationism in health care professional education programmes and the preparation of students to function only in the confines of their own disciplines", *Journal of Interprofessional Care*, 9 (1), pp. 33-40

Hindler C, Nazareth I, King M, Cohen J, Farmer R, Gerada C (1995) "Drug users' views on general practitioners" *BMJ*, 310, p. 302

Hjordahl P, Laerum E (1992), "Continuity of care in general practice: effect on patient satisfaction", *BMJ*, 304, pp. 1287-1290

Hodgson C (1998) "It's all good practice: linking primary care and social services in Greenwich", *Journal of Interprofessional Care*, 12 (1), pp. 89-91

Holloway I, Walker J (2000) *Getting a PhD in Health and Social Care*, Oxford: Blackwell Science Ltd.

Hopton J, Dlugolecka M (1995) "Patients' perceptions of need for primary health care services: useful for priority setting?" *BMJ*, 310, pp. 1237-1240

Howie J, Heaney D, Maxwell M, Walker J, Freeman G, Rai H (1999), "Quality at general practice consultations: cross sectional survey", *BMJ*, 319, pp. 738-743

Huczynski A, Buchanan D (2001) *Organizational Behaviour: An Introductory Text*, Harlow: Pearson Education Ltd.

Hull F M, Hull F S (1984), "Time and the general practitioner: the patient's view", *Journal of the Royal College of General Practitioners*, 34, pp. 71-75

Hull R, Leese B, Bailey J (1999) *Experiments in the organisation of primary health care*, Manchester: Centre for Research on Innovation and Competition, University of Manchester

Huntingdon J (1981) "Time orientation in the collaboration of social workers and general practitioners", *Social Science and Medicine*, 15a, pp. 203-210

Hussey J, Hussey R (1997) *Business Research*, Basingstoke: Macmillan Press Ltd.

Hutchinson A, Gordon S (1992) "Primary care teamwork - making it a reality", *Journal of Interprofessional Care*, 6 (1), pp. 31-42

Hutchinson L, Marks T, Pittilo M (2001) "The physician assistant: would the US model meet the needs of the NHS?", *BMJ*, 323, PP. 1244-1247

- Iiffe S (2000) "Nursing and the future of primary care", *BMJ*, 320, PP. 1020-1021
- Jackson C (1994) "New world, new dilemmas", *Health Visitor*, 67 (1), pp. 8-9
- Jacox A (1997) "Determinants of who does what in health care", *Nursing World*
- Jary D, Jary J (1999) *Dictionary of Sociology*, Glasgow: Harper Collins
- Jenkins-Clarke S, Carr-Hill R (1996), *Measuring Skill Mix in Primary Care: Dilemmas of Delegation and Diversification*, University of York: Centre for Health Economics
- Jenkins-Clarke S, Carr-Hill R, Dixon P, Pringle M. (1997), *Skill mix in Primary care: A study of the interface between the general practitioner and other members of the Primary Health Care Team*, University of York: Centre for Health Economics
- Jensen J, Rodgers R (2001) "Cumulating the Intellectual Gold of Case Study Research" *Public Administration Review*, 61 (2), pp. 236-246
- Jewell D (1997) "Supporting diversity in primary care", *BMJ*, 314, p. 1706
- Jinks C, Ong B, Croft P (2001) "Postal surveys in primary care: the hidden burden" *Health Expectations*, 4, pp. 253-259
- Johnson G, Scholes K (1993) *Exploring Corporate Strategy*, London: Prentice Hall
- Jones P (1993) "Standing firm, gaining strength", *Primary Health Care*, 3 (9), pp. 16-18
- Kaim-Caudle P, Marsh G (1975), "Patient-satisfaction survey in general practice", *British Medical Journal*, 1, pp. 262-264
- Katon W, Von Korff M, Lin E, Simon G, Walker E, Bush T, Ludman E (1997) "Collaborative Management to Achieve Depression Treatment Guidelines" *Journal of Clinical Psychiatry*, 58 (1), pp. 20-23
- Katzenbach J, Smith D (1993) *The Wisdom of Teams: Creating the High Performance Organisation*, Harvard Business Press: Boston
- Kearins (2000) *Power in Organisational Analysis: Delineating and Contrasting a Foucauldian Perspective*,
(www.mngt.waikato.ac.nz/depts/sml/journal/vol_3/kate.htm)
- Kerfoot K M (1997) "Role redesign: what has it accomplished?", *Nursing World*

Kernick D (1999) "Nurses and doctors in primary care: decisions should be based on maximising the cost effectiveness of a system of primary care and not the dictates of historical precedent", *British Journal of General Practice*, 49, pp. 647-649

Kernick D, Scott A (2002) "Economic approaches to doctor/nurse skill mix: problems, pitfalls and partial solutions", *British Journal of General Practice*, 52 (474), pp. 42-46

Keys M (1997) "Health visitors' reactions to implementing skill mix", *Nursing Standard*, 11 (21), pp. 34-38

Kinnersley P, Anderson E, Parry K, Archard L, Turton P, Stainthorpe A, Fraser A, Butler C, Rogers C (2000), "Randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting "same day" consultations in primary care", *BMJ*, 320, pp. 1043-1048

Kitzinger J (1995) "Qualitative Research: Introducing focus groups" *BMJ*, 311, pp. 299-302

Kreuger R (1988) *Focus groups: a practical guide for applied research*, London: Sage

Larsson B (1999), "Patients' views on quality of care: age effects and identification of patient profiles", *Journal of Clinical Nursing*, 8, pp. 693-700

Laurant M, Sergison M, Halliwell S, Sibbald B (2000) "Evidence based substitution of doctors by nurses in primary care?", *BMJ*, 320, p. 1078

Laurent C (1992) "Mixed feelings" *Nursing Times*, 88, pp. 57-58

Leese B, Bosanquet N (1995) "Change in general practice and its effects of service provision in areas with different socioeconomic characteristics" *BMJ*, 311, pp. 546-550

Leese B, Bosanquet N (1996) "Change in general practice organization: survey of general practitioners' views on the 1990 contract and fundholding" *British Journal of General Practice*, 46 (403), pp. 95-99

Leese B, Gillam S (2000) "Primary Care provision", *National Tracker Survey of Primary Care Groups and Trusts*, Manchester: NPCRDC

Leonard S (1999) "The expanded role of the registered nurse: studying nurses' perceptions", *Nursing Standard*, 13 (43), pp. 32-36

Lester H, Tritter J, Sorohan H (2005) "Patients' and health professionals' views on primary care for people with serious mental illness: focus group study", *BMJ*, doi:10.1136/bmj.38440.418426.8F

Lewis J (1994), "Patients' views on quality care in general practice: literature review", *Social Science and Medicine*, 39:5, pp. 655-670

Lewis R, Dixon J, Gillam S (2003) *Future Directions for Primary Care Trusts*, London: King's Fund

Lincoln Y, Guba E (1985) *Naturalistic inquiry*, Beverley Hills: Sage

Lissauer, R. and Kendall, L. (2002) *New Practitioners in the Future Health Service: Exploring Roles for Practitioners in Primary and Intermediate Care*, Institute Public Policy Research: London

Little P, Everitt H, Williamson I, Warner G, Moore M, Gould C, Ferrier K, Payne S (2001) "Preferences of patients for patient centred approach to consultation in primary care: observational study" *BMJ*, 322, pp. 468-472

Long S (1996) "Primary healthcare team workshop: team members' perspectives", *Journal of Advanced Nursing*, 23, pp. 935-941

Louden W (1991) *Understanding Teaching*, London: Cassell

Luker K, Austin L, Willock J, Ferguson B, Smith K (1997) "Nurses' and GPs' views of the nurse prescribers' formulary", *Nursing Standard*, 11 (22), pp. 33-38

Lupton D (1994) *Medicine as Culture*, Sage: London

McClure L M (1984) "Teamwork, myth or reality: community nurses' experience with general practice attachment", *Journal of Epidemiology and Community Health*, 38, pp. 68-74

McDonald A, Langford I (2000) "Observations and recommendations for assessing patient satisfaction in a primary care setting using a previously validated questionnaire" *Health and Social Care in the Community*, 8 (2), pp. 109-118

McKenna H (1995) "Nursing skill mix substitutions and quality of care: an exploration of the assumptions from the research literature", *Journal of Advanced Nursing*, 21, pp. 452-459

McKinstry B, Gillies E (1998) "Views of doctors and nurses on the development of treatment room nursing: a survey in a Scottish new town" *Family Practice*, 5, pp 116-121

Mackereth C (1995) "The practice nurse: roles and responsibilities", *Journal of Advanced Nursing*, 21, pp. 1110-1116

Macmillan L, Pringle M (1993) "Practice managers and practice management" *Change and Teamwork in Primary Care*, London: BMJ Publishing Group

Magennis C, Selvin E, Cunningham J (1999) "Nurses' attitudes to the extension and expansion of their clinical roles", *Nursing Standard*, 13 (51), pp. 32-36

Mangen S, Griffith J (1982), "Patient satisfaction with community psychiatric nursing: a prospective controlled study", *Journal of Advanced Nursing*, 7, pp. 477-482

Mares P (1998) *How health authorities learn: a review of the literature*, Centre for Innovation in Primary Care

Marsh G, McNay R (1974) "Team work load in an English general practice - I", *British Medical Journal*, 1, pp. 315-318

Marsh G, Dawes M (1995), "Establishing a minor illness nurse in a busy general practice", *BMJ*, 310, pp. 778-780

Marshall M N, Mannion R, Nelson E, Davies H (2003) "Managing change in the culture of general practice: qualitative case studies in primary care trusts" *BMJ*, 327, pp. 599-602

May and Buck (1998) "Power, Professionalism and Organisational Transformation" *Sociological Research Online*, 3 (2), www.socresonline.org.uk/socresonline/3/2/5.html

Mays N, Pope C (1995) "Qualitative Research: Rigour and qualitative research" *BMJ*, 311, pp. 109-112

Mazor K, Clauser B, Field T, Yood R, Gurwitz J (2002) "A Demonstration of the Impact of Response Bias on the Results of Patient Satisfaction Surveys" *Health Services Research*, 37:5, pp. 1403-1417

Mechanic D (2001) "How should hamsters run? Some observations about sufficient patient time in primary care" *BMJ*, 323, PP. 266-268

Miller D, Beckett E (1980) "A new member of the team? Extending the role of the nurse in British Primary Care", *The Lancet*, pp. 358-361

Mintzberg, H (1993) *Structure in Fives: Designing Effective Organizations*. N.J: Prentice-Hall

Monkley Poole S (1995) "The attitudes of British fundholding general practitioners to community psychiatric nursing services", *Journal of Advanced Nursing*, 21, pp. 238-247

Mont D, Towse A (1995) "The future of general practice: an overview" *The future of primary care: papers from a symposium held on 13/9/1995*, London: Office of Health Economics, pp. 1-17

Morgan D (1993) *Successful Focus Groups: Advancing the State of the Art*, London: Sage Publications

Morris C, Cantrill J, Weiss M (2001) "GPs' attitudes to minor ailments" *Family Practice*, 18, pp 581-5.

Murray S, Paxton F (1993) "Nurses or doctors: Patient Choice in Family Planning" *Health Bulletin*, 51 (6), pp. 394-398

Murphy E, Kinmonth A, Marteau T (1992) "General practice based diabetes surveillance: the views of patients", *British Journal of General Practice*, 42, pp. 279-283

NHS Careers (2006) *Overview of the NHS*,
<http://www.nhscareers.nhs.uk/nhs/aboutnhs.html>

NHS Confederation (2002) "Creating high performance – why is it so hard?" *Leading Edge*, 4, pp. 4-5

NHS Information Centre (2006) *NHS Staff 1995-2005*,
<http://www.ic.nhs.uk/pubs/nhsstaff>

NHS Management Executive, Value for Money Unit (1992) *The Nursing Skill Mix in the District Nursing Service*, London: HMSO

NHS Executive (1999) *Patient and public involvement in the new NHS*,
<http://www.dh.gov.uk/PublicationsAndStatistics/>

NHS Executive (1999), *Involvement works: the second report of the Standing Group on Consumers in NHS Research*, Winchester: Consumers in the NHS Research Support Unit

NHS Executive (2000) *NHS Beacons*,
<http://www.modern.nhs.uk/nhsbeacons/>

NHS Modernisation Agency (2003) *Practitioners with a Special Interest*,
<http://www.natpact.nhs.uk/cms/165.php>

National Association of Primary Care (2000) *NAPC Press Release on National Plan*

Neuberger J (1998) "Primary care: core values Patients' priorities", *BMJ*, 317, pp. 260-262

Nolan M (1995) "Towards an ethos of interdisciplinary practice", *BMJ*, 11, PP. 305-307

Oppenheim A (1992) *Questionnaire Design, Interviewing and Attitude Measurement*, London: Pinter Publishers

- Ovretveit J, Mathias P, Thompson T (1997) *Interprofessional working for Health and Social Care*, Hampshire: Macmillan Press Ltd.
- PMS National Evaluation Team (2000) *National Evaluation of First Wave NHS Personal Medical Services Pilots*, Manchester: NPCRDC
- Pathmakanthan S, Murray I, Smith K, Heeley R, Donnelly M (2001) "Nurse endoscopists in United Kingdom health care: a survey of prevalence, skills and attitudes", *Journal of Advanced Nursing*, 36 (5), pp. 705-710
- Paxton F, Heaney D (1997), "Minor injuries units: evaluating patients' perceptions", *Nursing Standard*, 12:5, pp. 45-47
- Paykel E, Mangan S, Griffith J, Burns T (1982), "Community Psychiatric Nursing for Neurotic Patients: A Controlled Trial", *British Journal of Psychiatry*, 140, pp. 573-581
- Peckham S, Exworthy M (2003) *Primary Care in the UK: Policy, Organisation and Management*, Basingstoke: Palgrave Macmillan
- Pedersen L, Leese B (1997) "What will a primary care-led NHS mean for GP workload? The problem of the lack of an evidence base" *BMJ*, 314, pp. 1337
- Phillips D, Brooks F (1998), "Women users' views on the role and value of the practice nurse", *Health and Social Care in the Community*, 6:3, pp. 164-171
- Portrykus C (1994) "Savage cuts accompany switch to PHCTs", *Health Visitor*, 67 (1), p. 2
- Poulton B (1990), "Evaluating health visiting practice", *Nursing Standard*, 5:3, pp. 36-39
- Poulton B (1995), "Keeping the Customer Satisfied", *Primary Health Care*, 5:4, pp. 16-19
- Poulton B (1996), "Use of the consultation satisfaction questionnaire to examine patients' satisfaction with general practitioners and community nurses: reliability, replicability and discriminant validity", *British Journal of General Practice*, 46, pp. 26-31
- Powell M J, Brock D M, Hinings C R (1999) "The changing professional organisation" *Restructuring the Professional Organisation: Accounting, Health Care and Law*, London: Routledge
- Powers B, Knapp T (1995) *A Dictionary of Nursing Theory and Research*, USA: Sage Publications Inc.
- Priest R, Vize C, Roberts A, Roberts M, Tylee A (1996) "Lay people's attitudes to treatment of depression: results of opinion poll for Defeat Depression Campaign just before it's launch" *BJM*, 313, pp. 858-859

- Pringle M (1992) "The developing primary care partnership", *BMJ*, 305, PP. 624-6
- Pritchard A, Kendrick D (2001) "Practice nurse and health visitor management of acute minor illness in general practice" *Journal of Advanced Nursing*, 36 (4), pp. 556-562
- Rapport F, Maggs C (1997) "Measuring care: the case of district nursing" *Journal of Advanced Nursing*, 25, pp. 673-680
- Reedy B (1981) "Unity in the community?", *Nursing Times*, pp. 1284-1285
- Reeve J (1994) "Nurses' attitudes towards health care assistants", *Nursing Times*, 90 (26), pp. 43-46
- Reid B (1993) "'But we're doing it already!' Exploring a response to the concept of reflective practice in order to improve facilitation", *Nurse Education Today*, 13, pp. 305-309
- Reveley S (1998) "The role of the triage nurse practitioner in general medical practice: an analysis of the role" *Journal of Advanced Nursing*, 28 (3) pp. 584-591
- Richards D, Tawfik J (2000) "Introducing nurse telephone triage into primary care", *Nursing Standard*, 15 (10), pp. 42-45
- Richardson G (1999) "Identifying, evaluating and implementing cost-effective skill mix" *Journal of Nursing Management*, 7 (5), pp. 265-270
- Ritzer G (2001) "Rationalization and deprofessionalization of physicians" *Explorations in Social Theory: From metatheorizing to Rationalization*, London: Sage Publications
- Roberts I L (1994) "The health care assistant: professional supporter or budget necessity?", *International Journal of Health Care Quality Assurance*, 7 (6), pp. 20-5
- Robertson R, Osman L, Douglas J (1997) "Adult asthma review in general practice: nurses' perception of their role", *Family Practice*, 14 (3), pp. 227-232
- Robinson J, Beaton S, White P (1993) "Attitudes towards practice nurses - survey of a sample of general practitioners in England and Wales", *British Journal of General Practice*, 43, pp. 25-29
- Roland M (1995) "The future of primary care", *The future of primary care: papers from a symposium held on 13th September 1995*, Office of Health Economics, pp. 86-94

Roland M (2002) "Contract needs to enable doctors to offer first class care" *BMJ*, 325, p. 1241

Rosen R, Stevens R, Jones R (2003) "General practitioners with special clinical interests" *BMJ*, 327, pp. 460-462

Ross F, Tissier J (1997) "The care management interface with general practice: a case study", *Health and Social Care in the Community*, 5 (3), pp. 153-161

Royal College of General Practitioners (1998) *The Primary Health Care Team*, <http://www.rcgp.org.uk/information/publications/information/rcf0021/rcf0021.asp>

Royal Pharmaceutical Society of Great Britain (2003) *Better Management of Minor Ailments: Using the Pharmacist*, London: RPSGB

Salisbury C (1991) "Working in partnership with nurses", *British Journal of General Practice*, p. 398

Salvage J, Smith R (2000) "Doctors and nurses: doing it differently", *BMJ*, 320, pp. 1019-1020

Sarantakos S (1993) *Social Research*, Basingstoke: The Macmillan Press Ltd.

Schon D (1987) *Educating the Reflective Practitioner*, San Francisco: Josey Bass

Scott G (1995) "Popular and effective", *Nursing Standard*, 9 (17), pp. 14-15

Sculpher M, Pang F, Manca A, Drummond M, Golder S, Urdahl H, Davies L, Eastwood A (2004) "Generalisability in economic evaluation studies in healthcare: a review and case studies" *Health Technology Assessment 2004*, 8 (49)

Sergison M, Sibbald B, Rose S (1998) *Skill mix in Primary Care – a Bibliography*, Manchester: NPCRDC

Seymour J (1994) "Building a skill-mix team", *Health Visitor*, 67 (3), pp. 105-106

Sherratt M, Jones K, Middleton P (2000) "A citizens' advice service in primary care: improving patient access to benefits" *Primary Health Care Research and Development*, 1 (3), pp. 139-146

Shum C, Humphreys A, Wheeler D, Cochrane M, Clement S (2000), "Nurse management of patients with minor illnesses in general practice: multi-centre, randomised controlled trial", *BMJ*, 320, pp. 1038-1043

Sibbald B, Petchey R, Gosden T, Leese B, Williams J (2002) "Salaried GPs in PMS Pilots: Impact on GP recruitment, retention, workload, quality of care and costs", *National Evaluation of First Wave NHS Personal Medical Services Pilots*, Manchester: NPCRDC

Simpson S, Corney R, Fitzgerald P, Beecham J (2000) "A randomised controlled trial to evaluate the effectiveness and cost-effectiveness of counselling patients with chronic depression" *Health Technology Assessment*, 4 (36)

Speel H C (1997) "A Memetic Analysis of Policy Making" *Journal of Memetics – Evolutionary Models of Information Transmission*, 1, (http://www.jom-emit.cfpm.org/1997/vol1/speel_h-c.html)

Spiers R, Jewell J (1995) "One counsellor, two practices: report of a pilot scheme in Cambridgeshire" *British Journal of General Practice*, 45, pp. 31-33

Staniszewska S, Ahmed L (1998), "Patient expectations and satisfaction with health care", *Nursing Standard*, 12:18, pp. 34-38

Starfield B (1994) "Is primary care essential?", *The Lancet*, 344, pp. 1129

Surender R, Fitzpatrick R, Brown S (1998) "The patient's view of general practice fundholding: results of a cross-sectional survey" *Health and Social Care in the Community*, 6 (5) pp. 370-377

Sykes J B (1978) *The Pocket Oxford English Dictionary*, Oxford: Oxford University Press

Taylor-Gooby P, Lawson R (1993) *Markets and Managers: New Issues in the Delivery of Welfare*, Buckingham: Open University Press

Taylor D H, Leese B (1997) "Recruitment, retention and time commitment change of general practitioners in England and Wales, 1990-4: a retrospective study" *BMJ*, 314, pp. 1806

Taylor (1998) "Underperforming doctors: a postal survey of the Northern Deanery" *BMJ*, 316, pp. 1705-1708

Taylor (2001) "Continuity is fine, but not for everything" *BMJ*, 322 (7288): 737

Taylor S, Bogdan R (1984) *Introduction to qualitative research methods: The search for meanings*, New York: John Wiley & Sons.

Thomas R, Corney R (1993) "Teamwork in primary care: the practice nurse perspective", *Journal of Interprofessional Care*, 7 (1), pp. 47-55

Traynor M (1994) "The views and values of community nurses and their managers: research in progress – one person's pain, another person's vision" *Journal of Advanced Nursing*, 20, pp. 101-109

Treadway J (1983), "Patient satisfaction and the content of general practice consultations", *Journal of the Royal College of General Practitioners*, 33, pp. 769-771

Trnobranski P (1994) "Nurse practitioner: redefining the role of the community nurse?", *Journal of Advanced Nursing*, 19, pp. 134-139

USAID Center for Development Information and Evaluation (1996) "Conducting Key Informant Interviews", *Performance Monitoring and Evaluation*, 2
http://www.ucsf.edu/aetcnec/evaluation/Conducting_Key_Informant.pdf

Van Maanen J (1983) *Qualitative Methodology*, London: Sage

Venning P, Durie A, Roland M, Roberts C, Leese B (2000), "Randomised controlled trial comparing cost effectiveness of general practitioners and nurse practitioners in primary care", *BMJ*, 320, pp. 1048-1053

M, Walsh A (1998), "Evidence based practice: is patient satisfaction evidence?", *Nursing Standard*, 12:49, pp. 38-42

Walsh N, Allen L, Baines D, Barnes M (1999) *Taking Off: A first year report of Primary Medical Services Pilots in England*, Birmingham: Health Services Management Centre

Wanless D (2002) *Securing our Future Health: Taking a Long-Term View*, London: HM Treasury

Ward S (2003) "Horsham's ENT clinic paves the way to treatment" *Primary Care Report*, 25th June, pp. 34-35

West M (1996) "Working in Groups" in Warr (1996) *Psychology at Work*, 4th edition, London: Penguin

West M, Poulton B (1997) "A failure of function: Teamwork in primary health care", *Journal of Interprofessional Care*, 11 (2), pp. 205-16

Wiles R (1997), "Empowering practice nurses in the follow-up of patients with established heart disease: lessons from patients' experiences", *Journal of Advanced Nursing*, 26, pp. 729-735

Wilkin D, Dowswell T, Leese B (2001) "Modernising primary and community health services" *BMJ*, 332, pp. 1522-1524

Williams B (1994), "Patient satisfaction: a valid concept?", *Social Science and Medicine*, 38:4, pp. 509-516

Williamson V (1995), "Personal care and teamwork in primary care: the patient's perspective", *Journal of Interprofessional Care*, 9:2, pp. 101-106

Wilson A, Pearson D, Hassey A (2002) "Barriers to developing the nurse practitioner role in primary care – the GP perspective" *Family Practice*, 19 (6), pp. 641-646

Yin R (1994) *Case Study Research: Design and Methods*, Revised Edition

Zermansky A, Raynor D, Petty D, Freemantle N (2002) "Longer consultations might necessitate redeployment of pharmacists", *BMJ*, 325, p. 104

Zuber-Skerritt, O (1996) *New Directions in Action Research*, London: Falmer Press

Zwarenstein M, Bryant W, Ballie R, Sibthorpe B (1997) "Interventions to promote collaboration between nurses and doctors" *Cochrane Review*, Cochrane Library

Bibliography

Audit Commission (1999) *Public consultation*, London: HMSO

Barbour R S (2001) "Checklists for improving rigour in qualitative research: case of the tail wagging the dog?" *BMJ*, 322 (7294), 1115

Belbin R M (1993) *Team Roles at Work*, Butterworth Heinemann: Oxford

Brock D M, Powell M J, Hinings C R (1999) "The restructured professional organisation: corporates, cobwebs and cowboys", *Restructuring the Professional Organisation*, London: Routledge

Coffey A, Atkinson P (1996) *Making sense of qualitative data: complementary research strategies*, London: Sage Publications

Cohen G, Forbes J, Garraway M (1996) "Can different patient satisfaction survey methods yield consistent results? Comparison of three surveys", *BMJ*, 313, pp. 841-844

Davies H T O, Harrison S (2003) "Trends in doctor-manager relationships" *BMJ*, 326, pp. 646-649

Ferlie E (2001) "Organisational studies" *Studying the Organisation and Delivery of Health Services*, London: Routledge

Green J (1999) "Commentary: Generalisability and validity in qualitative research" *BMJ*, 319, pp. 418-421

Griffiths F, Byrne D (1998) "General practice and the new science emerging from the theories of 'chaos' and complexity" *British Journal of General Practice*, 48, pp. 1697-1699

Harrison S (2001) "Policy analysis" *Studying the Organisation and Delivery of Health Services*, London: Routledge

Horrocks S, Anderson E, Salisbury C (2002) "Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors", *BMJ*, 324, pp. 819-823

Kelson M (2000), "User involvement in clinical governance: good practice guidance and examples", *Clinical Governance Bulletin*, 1:1, pp. 2-3

McColl E, Jacoby A, Thomas L, Soutter J, Bamford C, Steen N, Thomas R, Harvey E, Garratt A, Bond J (2001) *Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patients*, 5 (31), *Health Technology Assessment*, <http://www.nchta.org/execsumm/summ531.htm>

Marshall M N (1999) "Improving quality in general practice: qualitative case study of barriers faced by health authorities" *BMJ*, 319, pp. 164-167

Morrell D C, Evans M E, Morris R W, Roland M O (1986), "The "five minute" consultation: effect of time constraint on clinical content and patient satisfaction", *British Medical Journal*, 292, pp. 870-873

Pope C, Mays N (1995) "Qualitative Research: Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research" *BMJ*, 311, pp. 42-45

Pope C, Ziebland S, Mays N (2000) "Analysing qualitative research" *BMJ*, 320, pp. 114-116

Ryan M (1996) *Using consumer preferences in health care decision making: the application of conjoint analysis*, London: Office of Health Economics

Ryan M, Scott D, Reeves C, Bate A, van Teijlingen E, Russell E, Napper M, Robb C (2001) "Eliciting public preferences for healthcare: a systematic review of techniques" *Health Technology Assessment 2001*, 5:5, <http://www.nchta.org/execsumm/summ505.htm>

Tudor Hart J (1985) "Practice nurses: an underused resource" *British Medical Journal*, 290, pp. 1162-1163

Walker R (1985) *Applied qualitative research*, Aldershot: Gower Publishing Company Ltd.

World Health Organisation (2003) *Primary Health Care: A Framework for Future Strategic Direction*, Geneva: WHO

Patient satisfaction with skill mix in primary care: a review of the literature

Christine Branson Torbay Primary Care Trust, Torquay, UK, Beryl Badger Plymouth Business School, University of Plymouth, Plymouth, UK and Frank Dobbs University of Plymouth, Plymouth, UK

This literature review focuses on patient satisfaction with skill mix in primary care. This is an important, rapidly changing, topic as the range of health professionals working alongside GPs increases and the roles of staff change. The review is intended to assist primary care organizations in developing skill mixes that meet patients' preferences and needs.

A number of characteristics that influence the type of services that patients want were discovered. Older people and those from ethnic minorities want a 'traditional', GP-led service. Access is important to younger people and those in full-time work. Those from lower socio-economic groups value nurses, but have found the increasingly complex organization of services a problem. There are different levels of knowledge and expectations about health services and information on the skills and knowledge of professionals, what they do and the links between them, needs to be available.

A number of aspects of care are important to patients. Patients liked nurses as they were good communicators, formed good therapeutic relationships, gave information on illnesses and spent more time. The location of services is important and patients liked services provided in the home or community. Continuity of care is key, but has been presented as old fashioned and reorganizations may have reduced continuity; skill mix could be viewed as forming a barrier between doctor and patient, but personal lists and teams where practices are divided into smaller units with shared support may help. The competence of health professionals is clearly vital and patients considered nurses competent, although they had concerns about nurses and pharmacists taking on some new roles.

The literature focuses on patients' views about doctors and nurses, although they also want a wider range of services and professionals available in primary care: occupational therapy, link workers, CAB advisers, pharmacist advice and mental health workers. Despite being satisfied with nurses, some patients still wanted to see a doctor next time or felt that a doctor should be available. GPs can help build awareness and confidence in patients about the roles and contribution of the team.

Key words: literature review; patient satisfaction; primary care; skill mix

Introduction

This literature review focuses on patient satisfaction with skill mix in primary care. Research into the topic is important as there is rapid and substantial change as a greater range of health pro-

fessionals' work alongside GPs and the roles of practice-based staff change. Key drivers are the increasing demand and cost of care, a shift from hospital-based to community services and difficulties with the recruitment and retention of general practitioners. Despite the importance of the topic, there is little research available and that which does exist is scattered across the specialist literature of different groups and tends to focus on a single aspect of skill mix, rather than the complexity of delegation and diversification.

Address for correspondence: Christine Branson, Torbay Primary Care Trust, Rainbow House, Avenue Road, Torquay TQ2 5LS, UK. Email: christine.branson@torbay-pct.nhs.uk

In order to determine patient satisfaction with skill mix, the review first considers the characteristics of patients that influence their satisfaction with health services. Then studies which have been undertaken on patient satisfaction with primary care and particular professionals working in primary care are considered, which can, when viewed together start to give an indication of aspects of skill mix, which may be satisfactory or not to patients. The results of the review are intended to assist primary care teams and policy makers in developing skill mixes that meet patients' preferences and needs. A pictorial summary of the issues arising from the literature review is shown in Figure 1.

Methodology: search terms and strategy

The following electronic clinical databases were searched between October and December 2000:

- HMIC (Health Management Consortium database combining the Department of Health, King's Fund and Nuffield Institute's HELMIS)
- Medline
- Cinahl
- RCN journals database
- BNI (British nursing index)
- Embase
- PsychInfo
- Assia
- Amed

The following search terms were used:

- Skill mix
- Primary care
- General practice
- Patient satisfaction
- Patient attitudes
- Patient views

The Boolean operator 'and' and 'wildcard' symbols were used in the search.

'Skill mix' in this case focuses on the mix of disciplinary groups in the delivery of a service. It also encapsulates the definition offered in both skill-mix bibliographies (Halliwell *et al.*, 1998; Sergison *et al.*, 1998), focusing on delegation and diversification. Delegation is where tasks are transferred from expensive, highly qualified pro-

professionals, such as GPs and senior nurses, to cheaper, less highly qualified staff, such as junior nurses and nurse assistants. Diversification is where additional services or professionals are added to the practice meet health needs and/or replace services provided in hospital and other settings.

'Primary care', in this context, means GPs and the clinical teams of directly employed staff – nurse practitioners, practice nurses and nurse/health care assistants. The roles of district nursing, health visitors, mental health workers and community pharmacists are considered less often as the literature does not focus on them quite so much and they are employed by other organizations. However, they do still have a part to play.

'Patient' is taken to mean anyone registered with a general practice, whether they are regular users of the service or not. 'Satisfaction' is taken to mean the extent to which a patient's expectations or needs are adequately met by the service offered.

As expected, a large number of references was generated. An assessment of the relevance of the studies was undertaken by one reviewer (CB) on the basis of the title, abstract and key words. Potentially relevant articles were obtained in full, if possible. In view of the difficulty that the search terms may exclude articles' relevance to the topic, the reference lists of all articles were searched.

The two bibliographies on skill mix in primary care from the National Primary Care Research and Development Centre (Halliwell *et al.*, 1998; Sergison *et al.*, 1998) were also used; full text articles of abstracts including the key words 'patient satisfaction' or 'patient views' were gained, where possible.

All types of studies and participants were included in the literature review. The main limitation to whether a study was included in the review was the ease with which it could be accessed by the reviewer; generally, studies reported in journals from abroad proved difficult to get hold of.

Details of each study (topic researched, design, number of participants, data yield, key findings, setting and limitations/weaknesses) were entered on to a database constructed using the Excel spreadsheet package. Quality assessment and relevance to the topic area was carried out by one reviewer (CB); all studies were scored using the following principles:

In order to determine patient satisfaction with skill mix, the review first considers the characteristics of patients that influence their satisfaction with health services. Then studies which have been undertaken on patient satisfaction with primary care and particular professionals working in primary care are considered, which can, when viewed together start to give an indication of aspects of skill mix, which may be satisfactory or not to patients. The results of the review are intended to assist primary care teams and policy makers in developing skill mixes that meet patients' preferences and needs. A pictorial summary of the issues arising from the literature review is shown in Figure 1.

Methodology: search terms and strategy

The following electronic clinical databases were searched between October and December 2000:

- HMIC (Health Management Consortium database combining the Department of Health, King's Fund and Nuffield Institute's HELMIS)
- Medline
- Cinahl
- RCN journals database
- BNI (British nursing index)
- Embase
- PsychInfo
- Assia
- Amed

The following search terms were used:

- Skill mix
- Primary care
- General practice
- Patient satisfaction
- Patient attitudes
- Patient views

The Boolean operator 'and' and 'wildcard' symbols were used in the search.

'Skill mix' in this case focuses on the mix of disciplinary groups in the delivery of a service. It also encapsulates the definition offered in both skill-mix bibliographies (Halliwell *et al.*, 1998; Sergison *et al.*, 1998), focusing on delegation and diversification. Delegation is where tasks are transferred from expensive, highly qualified pro-

fessionals, such as GPs and senior nurses, to cheaper, less highly qualified staff, such as junior nurses and nurse assistants. Diversification is where additional services or professionals are added to the practice meet health needs and/or replace services provided in hospital and other settings.

'Primary care', in this context, means GPs and the clinical teams of directly employed staff – nurse practitioners, practice nurses and nurse/health care assistants. The roles of district nursing, health visitors, mental health workers and community pharmacists are considered less often as the literature does not focus on them quite so much and they are employed by other organizations. However, they do still have a part to play.

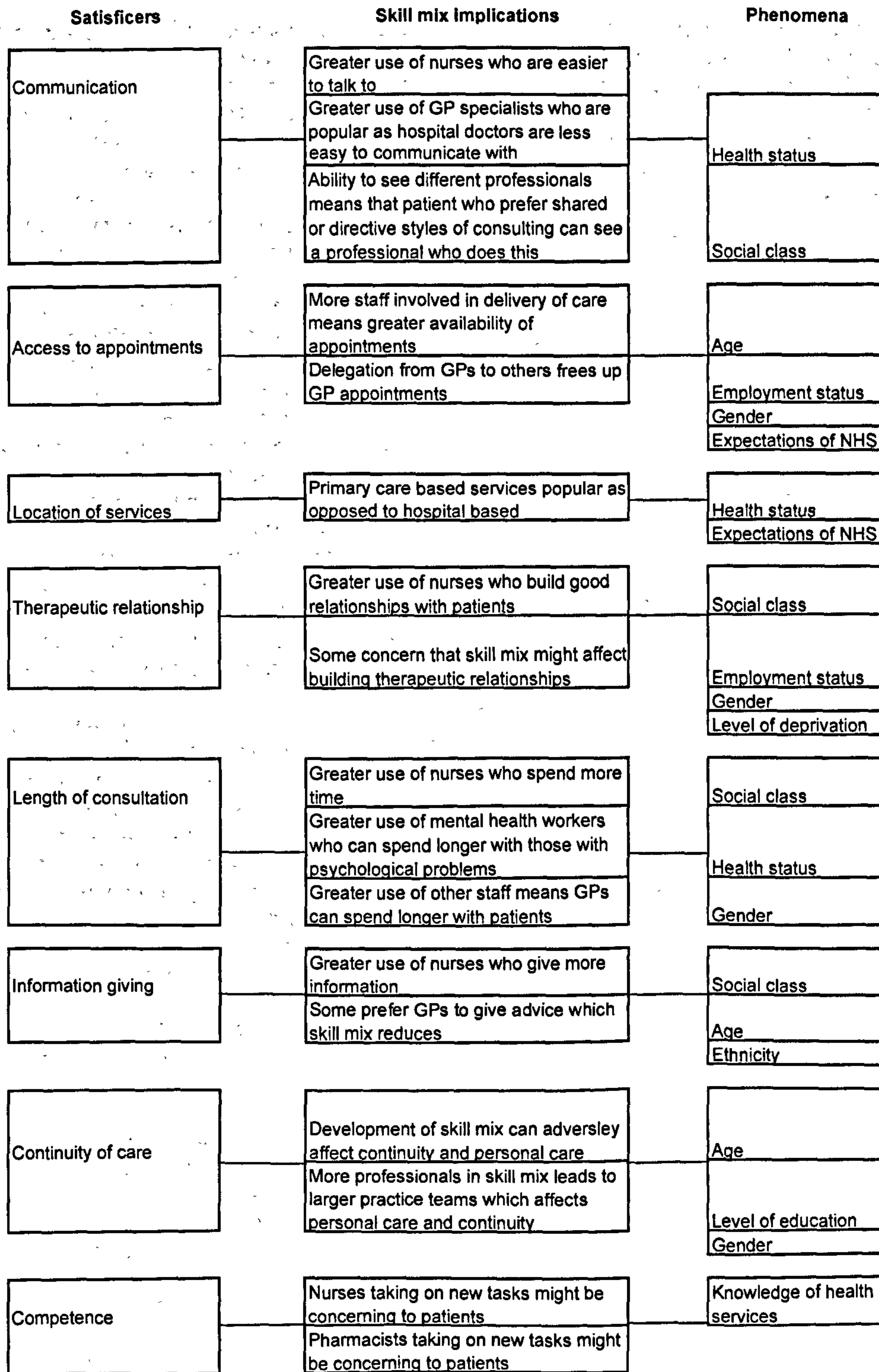
'Patient' is taken to mean anyone registered with a general practice, whether they are regular users of the service or not. 'Satisfaction' is taken to mean the extent to which a patient's expectations or needs are adequately met by the service offered.

As expected, a large number of references was generated. An assessment of the relevance of the studies was undertaken by one reviewer (CB) on the basis of the title, abstract and key words. Potentially relevant articles were obtained in full, if possible. In view of the difficulty that the search terms may exclude articles' relevance to the topic, the reference lists of all articles were searched.

The two bibliographies on skill mix in primary care from the National Primary Care Research and Development Centre (Halliwell *et al.*, 1998; Sergison *et al.*, 1998) were also used; full text articles of abstracts including the key words 'patient satisfaction' or 'patient views' were gained, where possible.

All types of studies and participants were included in the literature review. The main limitation to whether a study was included in the review was the ease with which it could be accessed by the reviewer; generally, studies reported in journals from abroad proved difficult to get hold of.

Details of each study (topic researched, design, number of participants, data yield, key findings, setting and limitations/weaknesses) were entered on to a database constructed using the Excel spreadsheet package. Quality assessment and relevance to the topic area was carried out by one reviewer (CB); all studies were scored using the following principles:



7

Figure 1 Skill mix in primary care: satisficers, implications and patient phenomena

- Grade A, excellent source;
- Grade B, pertinent information, but very limited;
- Grade C, interesting but subjective or of questionable reliability;
- Grade D, not pertinent.

Those studies that scored lower grades, that is C and D, were either excluded from the final review, or mentioned only in support of other higher graded studies. Seventy-five articles were uncovered by the search strategy, and 15 were excluded.

Prospective searching of core journals in this area continues; the journals that are searched are:

British Medical Journal
 British Journal of General Practice
 Family Practice
 Health and Social Care in the Community
 Journal of Advanced Nursing
 Nursing Standard
 Primary Health Care Research and Development

Results

Methodological issues

The majority of research into patient satisfaction with primary care has adopted a quantitative approach characterized by large samples, statistical data yield and a tendency for questionnaires to be used. Of 52 primary research articles collected, 30 were of a quantitative design. It has been noted that quantitative measures lack discriminatory ability (Bond and Thomas, 1992) and the reductionism and standardization involved in quantitative methods can remove much of the meaning and this is evidenced by the high levels of patient satisfaction recorded in the majority of studies (Lewis, 1994; Williams, 1994). The implication is that the design and use of questionnaires is very important, as poorly designed and executed questionnaires can act as censorship, giving misleading results and limiting the opportunity for patients to express concerns (Lewis, 1994; Williams, 1994). Questionnaires also tend to suffer from low response rates, particularly amongst younger people, those in poorer areas and those unable to read or write (Cohen *et al.*, 1996; Lewis, 1994); this can lead to nonresponse bias.

Qualitative methods have been identified as

allowing a more critical slant to come through in patient satisfaction studies (Williams, 1994). However, few of the articles reviewed used a qualitative methodology; of the 52 primary research articles, only six used a qualitative approach. It was, however, slightly more common for triangulation of methodologies: developing questionnaires from open-ended interviews with patients or focus group work, which was pursued in 16 of the articles. This suggests that further research is required using qualitative methodologies.

There are other issues of relevance to a literature review of this topic area. Primary care teams do tend to be quite different from each other, largely due to the independent contractor status of the GP and the nature of the population that they serve; many of the studies therefore warned that the results might not be generalized to other practices. Different meanings have been found for 'patient satisfaction' (Bond and Thomas, 1992; Lewis, 1994; Mahon, 1996; Mangen and Griffith, 1982) and the lack of definition and discriminatory ability might lead to the high levels of satisfaction reported in many studies (Bond and Thomas, 1992).

Influences on patient satisfaction

Patient satisfaction is affected by knowledge of health services (Bond and Thomas, 1992; Mangen and Griffith, 1982; NHS Executive, 1999). Expectations of services have also been found to be influenced by previous experiences of health care. Knowledge and experience of the changing roles of different health professionals, such as doctors and nurses (Bond and Thomas, 1992) can therefore affect satisfaction and this should be an important consideration in implementing skill mix changes. The literature shows that patients are less sure of the role of the nurse than the doctor (Phillips and Brooks, 1998; Staniszewska and Ahmed, 1998) and to explore further patients' perceptions and knowledge of these roles a study has been undertaken on a nurse-led pilot, where the nurse employs the GP (Chapple *et al.*, 2000). Patients' perceptions of the role of the nurse were influenced by a number of sources, including letters from the health authority, comments from receptionists, newspaper articles, information leaflets, their own and other patients' experiences and previous contact with a nurse practitioner. There is clearly a need for patient information on the skills and knowledge of

different health and social care professionals, what they do and the links between them (Forum on Teamworking in Primary Care, 2000). It may also be the case that people's perceptions of doctors and nurses taking on new roles may change when they have actually experienced this.

Age is the most frequently cited influence on patient satisfaction, with 23 studies in this area. There is a tendency for older people to be more satisfied (Department of Health, 2000; Grogan *et al.*, 1995; Howie *et al.*, 1999; Hull and Hull, 1984; Jenkins-Clarke *et al.*, 1997; Larsson, 1999; Treadway, 1983) although not all show a link (Baker, 1990; Kaim-Caudle and Marsh, 1975). It is also difficult to determine the preferences of 'young' and 'old' people, as people aged 16 and under were excluded from most of the review studies and definitions of younger and older people were seldom given or differed. The link between increasing age and satisfaction is complex (Baker and Streatfield, 1995) and may be because some older patients can remember before the NHS existed (Larsson, 1999). It may also be because they are treated with more respect and consideration by some health professionals (Larsson, 1999; Lewis, 1994) as they feel more comfortable dealing with more passive elderly people, compared with consumerist younger people (Williams, 1994). Their views will also be determined by the services they receive (Baker and Streatfield, 1995) and studies show that older patients seem to receive better services (Baker, 1990; Department of Health, 2000; Freeman and Richards, 1993; Howie *et al.*, 1999; Kaim-Caudle and Marsh, 1975; O'Reilly *et al.*, 2001). It is also important to remember though that older people do tend to have more complex health problems and higher levels of need (Larsson, 1999). It may be that skill mix divides the young and the old, providing more satisfactory services for younger people. As older people want a more 'traditional' service (Baker and Streatfield, 1995; Jenkins-Clarke *et al.*, 1997; Lewis, 1994; Williamson, 1995) they may be more resistant to skill mix (Forum for Teamworking in Primary Healthcare, 2000). But, as access issues are most important to younger people, particularly those that work (Department of Health, 2000; Forum for Teamworking in Primary Healthcare, 2000), skill mix involving nurse-led services at weekends or early in the morning or later at night (Dobson, 1999) may meet their needs better. Chapple *et al.*,

(2001) also found that younger people would be more likely to use a NHS walk-in centre.

Health status has been shown to influence services required and satisfaction, as evidenced in 13 articles. A distinction can be drawn between patients presenting with chronic or psychological problems and, acute or physical problems. Those with chronic or psychological problems prefer a shared consulting style, characterized by good communication and patient centred consultations (Savage and Armstrong, 1990). However, other studies have shown that they want a more directive style, to get reassurance or to avoid responsibility for a poor outcome (Little *et al.*, 2001; McKinstry, 2000). Continuity does seem to be important for those with chronic problems (Freeman and Hjortdahl, 1997), whereas those with acute problems are less bothered who they see (Taylor, 2001) and they prefer a directive style of consultation (McKinstry, 2000; Savage and Armstrong, 1990). This is supported by Sibbald *et al.* (2001) who found that those with urgent health care problems would be more likely to use a NHS walk-in centre as they did not mind who they saw.

Although it has been stated that there are few class differences in patient satisfaction with primary care (Department of Health, 2000; Kaim-Caudle and Marsh, 1975), 13 studies were found showing socio-economic preferences relevant to skill mix developments. Those from nonmanual social classes prefer a shared consultation style (McKinstry, 2000), which is likely to be connected to their view that the GP does not always know best (Department of Health, 2000). Working class people have been found to value nurses most, possibly because they find them easier to talk to (Bowling, 1981). However, increasingly complex organization of health care can inhibit the participation of this group (Brearley, 1990). Those in paid work or full-time education are least satisfied with access to primary care (Department of Health, 2000) and tend to use the community pharmacy as a 'first point of call' instead (Hassell *et al.*, 1997).

There is no clear link in the 12 studies found on gender and satisfaction. Some studies suggest that women are less satisfied (Department of Health, 2000; Larsson, 1999) and others that they were more satisfied (Grogan *et al.*, 1995)! Women do use health services more often than men (Department of Health, 2000) so satisfaction may be linked to how well they feel their expectations

were met at their last visit (Thorsen *et al.*, 2001). Similarly, men have been found to be both satisfied with consultation time (Baker, 1990; Department of Health, 2000) and dissatisfied (Hull and Hull, 1984).

There has been very little research involving patients from an ethnic minority, particularly those who may have a limited understanding of English; only five studies were found. Lower levels of satisfaction with primary care, organized around the GP practice, have been found (Department of Health, 2000) and Sibbald *et al.* (2001) found that as a result of this, people from ethnic minorities would be more likely to use a NHS walk-in centre. They also feel that it is important for the GP to carry out basic tasks, such as taking blood and giving injections (Lewis, 1994) which obviously has implications for skill mix, as delegation of these procedures to nurses is common.

The literature on what influences satisfaction appears to have a recurring theme of the impact of expectations and knowledge of health care, regardless of other characteristics. Those who use the service more are more knowledgeable about it, and can decide whether it meets their expectations and from this how satisfied they are. Age, health status and socio-economic status appear show the most firm evidence for determining levels of satisfaction. The literature is either scarce or contradictory for gender and ethnicity, suggesting that further research is required in these areas.

What matters to patients

Communication is the most frequently mentioned satisfier, mentioned in 26 studies on satisfaction. Patients require good communication with a health professional and they also expect health professionals to talk to each other (Ovretveit, 1997). A number of studies indicate that nurses are viewed by patients as good communicators, sometimes better than doctors (Mangen and Griffith, 1982; Paykel *et al.*, 1982; Paxton and Heaney, 1997; Venning *et al.*, 2000). However, this may only be applicable to primary care as hospital studies have shown that patients felt that nurses' communication was poor (McCull *et al.*, 1996; Staniszevska and Ahmed, 1998). This is supported by work on doctors' communication which found that GPs are viewed as better communicators than hospital doctors (Murphy *et al.*, 1992; Williams, 1994). This may be due to the setting; Rapport and

Maggs (1997) found that patients felt more able to voice their concerns to district nurses as they saw them in their homes and they felt more comfortable in this setting.

Patients are concerned about the amount of time that professionals spend with them, and 22 studies were found in this area. High levels of satisfaction have been reported with nurses (Kinnersley *et al.*, 2000; Mangen and Griffith, 1982; Paykel *et al.*, 1982; Poulton, 1995; Shum *et al.*, 2000; Venning *et al.*, 2000). The NHS survey also found that people were satisfied with GPs (Department of Health, 2000) although patients probably expect consultations with general practitioners to be shorter (Poulton, 1996). Regardless of professionals, there is a quality argument for longer consultations (Jenkins-Clarke *et al.*, 1997; Morrell *et al.*, 1986; Venning *et al.*, 2000) and to achieve this, reductions in home visiting and delegation through skill mix have been suggested (Hull and Hull, 1984; Forum for Teamworking in Primary Healthcare, 2000).

Continuity of care has been shown to be important to patients and was mentioned in 21 studies. It has been found to be particularly important for older patients, females and those from disadvantaged communities (Chapple *et al.*, 2000; Jenkins-Clarke *et al.*, 1997; Ross and Tisser, 1997). But, despite its importance to patients, continuity can be seen as old fashioned and in opposition to the development of modern primary care (Guthrie and Wyke, 2000) and concerns have been expressed that NHS reorganizations seem to reduce personal continuity (Baker and Streatfield, 1995; Guthrie and Wyke, 2000; Hull and Hull, 1984; Neuberger, 1998; Williamson, 1995). Further, continuity and satisfaction may decrease as the size of practices increases (Audit Commission, 2001; Baker, 1990; Baker and Streatfield, 1995; Howie *et al.*, 1999) and skill mix could also affect continuity and be viewed as forming a barrier between doctor and patient (Bowling, 1981). However, the study by Jenkins-Clarke *et al.* (1997) found no clear relationship between practice size and continuity. Proposals have been put forward to help achieve personal continuity where larger practices have personal lists and are divided into a number of smaller, individual patient-centred teams with shared administrative and support functions (Baker and Streatfield, 1995; Forum on Teamworking in Primary Healthcare, 2000);

Guthrie and Wyke (2000) identified primary care trusts as a mechanism to do this.

The competence of health professionals is clearly important to patients and is discussed in 20 studies. Some have suggested that patients cannot assess competence (Brearley, 1990; Mangen and Griffith, 1982), although others advise that although they may judge 'technical ability' differently from professionals this does not mean that one is correct or better (Bond and Thomas, 1992). Patients have judged the competence of nurses favourably (Department of Health, 2000; Paykel *et al.*, 1982; Poulton, 1995; 1996; Shum *et al.*, 2000), although there are concerns about nurses' competence in new roles (Paxton and Heaney, 1997; Wiles, 1997).

It is important for patients to receive adequate information as shown in 18 studies. Again, patients have expressed high levels of satisfaction with the amount of information that nurses provide (Kinnersley *et al.*, 2000; Shum *et al.*, 2000). However, the studies on patient satisfaction with GPs show contradictory results: some showed patients were satisfied (Department of Health, 2000; Kaim-Caudle and Marsh, 1975), whereas others showed that patients would have liked more information (Baker, 1990; Brearley, 1990; Grogan *et al.*, 1995).

Depth of relationship has been identified as a key attribute of patient satisfaction with primary care, identified in 12 studies. Some patients are most satisfied with their relationship with nurses (Paykel *et al.*, 1982; Shum *et al.*, 2000) and in some studies, patients seemed more satisfied with the relationship with the nurse than with the GP (Shum *et al.*, 2000). However, another study showed poor depth of relationship when patients were seeing the nurse for the first time (Poulton, 1995).

The location of services is important and skill mix has led to some services being provided in the home or community, when previously the patient had to travel to a hospital or other location; there are 12 studies in this area. Accessibility, reduced waiting times, reduced travelling costs and depth of relationship have all been found to be advantages to patients (Diabetes Integrated Care Evaluation Team, 1994; Forum for Teamworking in Primary Healthcare, 2000; Galvin *et al.*, 2000; Gillam *et al.*, 1995; Murphy *et al.*, 1992; Wiles, 1997). However, some disadvantages have been identified as well – notably concerns from patients

about quality and competency (Diabetes Integrated Care Evaluation Team, 1994; Hindler *et al.*, 1995; Wiles, 1997).

The literature on what matters to patients seems to focus on communication, time spent with professionals, continuity of care, competence and information giving. It suggests that nurses are seen as good communicators, who spend time with patients and give them adequate information on their illnesses. However, there are some concerns about competence and the effect on continuity of introducing other professionals into the care process. Depth of relationship with professionals, and satisfaction with the location of services, is less frequently reported although relationships with nurses are again viewed positively, as were a greater range of services from practices.

Professionals involved in skill mix in primary care

The literature tends to focus on the patient views about doctors and nurses in primary care, with 38 studies in this area. However, patients also want a wide range of services and professionals to be available at the practice including physiotherapy, podiatry, osteopathy, consultant sessions, housing advice, social services and benefits advice (Neuberger, 1998). Patient satisfaction with these services, if they even exist, is much less frequently reported and suggests that further research would be required in this area.

Patient satisfaction with nurses in primary care is high because they are felt to be easy to talk to, professional, spend more time, give good advice and information and are good at dealing with children and parents (BBC News, 2000; Bhopal, 1994; Brown and Grimes, 1995; Department of Health, 2000; Dolan *et al.*, 1997; Drury *et al.*, 1988; Jenkins-Clarke *et al.*, 1997; Kinnersley *et al.*, 2000; Poulton, 1995; 1996; Salisbury and Tettershall, 1988; Shum *et al.*, 2000). However, patients feel that there are limits to the nurse role with patients still preferring to see the doctor at the next visit for a minor illness (Kinnersley *et al.*, 2000; Shum *et al.*, 2000) and female patients preferring to see a female GP rather than a nurse (Phillips and Brooks, 1998). However, Murray and Paxton (1993) found that apart from an initial consultation for oral contraception, patients would prefer to see the nurse for family planning. Patients seem to value access to the nurse, but she is seen as an

assistant to the GP which suggests a lack of understanding of their potential (Phillips and Brooks, 1998; Wiles, 1997; Williamson, 1995). GPs can help to raise awareness and confidence in their patients about nurses (Jenkins-Clarke *et al.*, 1996; Wiles, 1997; Williamson, 1995).

There are few examples of other staff working with primary care teams and a measure of patient satisfaction with these services. Eight studies were found on primary care-based mental health services which were popular with patients who preferred talking therapy to medication (Goldberg *et al.*, 1996; Greener, 2000; Mangen and Griffith, 1982; Paykel *et al.*, 1982; Priest *et al.*, 1996; Simpson *et al.*, 2000; Spiers and Jewell, 1995); a study on the management of depression showed that collaborative working arrangements, either between GPs and psychiatrists or psychiatrists and psychologists, were most popular with patients (Katon *et al.*, 1997). Only four studies were found on patient satisfaction with community nurses which showed satisfaction with care, relationship and time with district nurses, but lower levels of satisfaction with health visitors (Poulton, 1996; Rapport and Maggs, 1997). However, another health visitor study on their role in managing acute minor illnesses found that patients reported higher levels of satisfaction than those seeing the GP or practice nurse (Pritchard and Kendrick, 2001); this may be because the numbers seen by health visitors were small and they focused on children under 5. Other services which appeared only once in the literature were nurse and occupational therapist-led clinics (NHS Executive, 2000), link workers (Gillam and Levenson, 1999) and CAB advisers (Galvin *et al.*, 2000); although satisfaction was high, more studies would be needed to provide an evidence base.

The literature focuses largely on views of doctors and nurses in primary care, with few studies considering other services. Nurses are viewed positively, although there are some concerns about limits to their role. Of the other professionals reported, primary care mental health services are popular with patients and there is some satisfaction with community nurses, although more research is needed.

Conclusions

The information on what influences patient satisfaction, what patients want and patient satisfaction

with professionals in primary care can assist in designing skill mix for different populations depending on their preferences. This information will be useful to practices considering their own skill mix developments and primary care organizations engaged in primary care development.

The studies in this area were mostly quantitative, characterized by large samples, statistical data yield and a tendency for questionnaires to be used. The literature on what influences satisfaction appears to have a recurring theme of the impact of expectations and knowledge of health care, regardless of other characteristics. Age, health status and socio-economic status appear to show the most firm evidence for determining levels of satisfaction. The literature is either scarce or contradictory for gender and ethnicity, suggesting that further research is required in these areas. The literature on what matters to patients focuses on communication, time spent with professionals, continuity of care, competence and information giving. It suggests that nurses are good communicators, who spend time with patients and give them adequate information on their illnesses. However, there are some concerns about competence and continuity. Regarding professionals, the literature focuses on doctors and nurses with few studies considering other services. Nurses are viewed positively, although there are some concerns about limits to their role.

The literature review has highlighted areas where little research has been undertaken. There is a need for further research to consider patient views on a much wider range of services in primary care, such as physiotherapy, podiatry, osteopathy, consultant sessions, housing, social services and welfare benefits. Despite a wealth of research on practice nurses and nurse practitioners involvement in skill mix, there is little research available on how patients feel about the involvement of 'attached' nurses, such as district nurses and health visitors in practice skill mix developments. There is also the potential for more studies on the satisfaction of the under-16s and those from ethnic minorities and, further studies on the effect of gender.

References

- Audit Commission 2001: *Specification for a project on general practice*. London: Audit Commission.

- Baker, R. 1990: Development of a questionnaire to assess patients' satisfaction with consultations in general practice. *British Journal of General Practice* 40, 487-90.
- Baker, R. and Streatfield, J. 1995: What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction. *British Journal of General Practice* 45, 654-59.
- BBC News. 2000: *Patients prefer nurses*, http://www.news.bbc.co.uk/hi/english/health/newsid_711000/711868.stm, retrieved October, 2000.
- Bhopal, R. 1994: Skill mix in primary care. *British Medical Journal* 309, 195-96.
- Bond, S. and Thomas, L.H. 1992: Measuring patient satisfaction with nursing care. *Journal of Advanced Nursing* 17, 52-63.
- Bowling, A. 1981: *Delegation in general practice. A study of doctors and nurses*. London: Tavistock Publications Ltd.
- Brearley, S. 1990: *Patient participation: the literature*. Middlesex: Scutair Press.
- Brown, S. and Grimes, D.E. 1995: A meta-analysis of nurse practitioners and nurse midwives in primary care. *Nursing Research* 44, 322-39.
- Chambers, N.L. 1998: *Nurse practitioners in primary care*. Oxford: Radcliffe Medical Press.
- Chapple, A., Rogers, A., Macdonald, W. and Sergison, M. 2000: Patients' perceptions of changing professional boundaries and the future of 'nurse-led' services. *Primary Health Care Research and Development* 1, 51-59.
- Chapple, A., Sibbald, B. and Rogers, A. 2001: Citizens' expectations and likely use of a NHS walk-in centre: results of a survey and qualitative methods of research. *Health Expectations* 4, 38-47.
- Cohen, G., Forbes, J. and Garraway, M. 1996: Can different patient satisfaction survey methods yield consistent results? Comparison of three surveys. *British Medical Journal* 313, 841-44.
- Department of Health. 2000: *The national survey of NHS patients general practice: 1998*. <http://www.doh.gov.uk/public/nhssurveygp.htm>, retrieved 9 December, 2002.
- Diabetes Integrated Care Evaluation Team. 1994: Integrated care for diabetes: clinical psychological and economic evaluation. *British Medical Journal* 308, 1208-12.
- Dobson, R. 1999: Patients satisfied with nurse run practices. *British Medical Journal* 319, 728.
- Dolan, B., Dale, J. and Morley, V. 1997: Nurse practitioners: the role in A&E and primary care. *Nursing Standard* 11, 33-37.
- Drury, M., Greenfield, S., Stilwell, B. and Hull, F.M. 1988: A nurse practitioner in general practice: patient perceptions and expectations. *Journal of the Royal College of General Practitioners* 38, 503-505.
- Fall, M., Walters, S., Read, S., Deverill, M., Lutman, M., Milner, P. and Rodgers, R. 1997: An evaluation of a nurse-led ear care service in primary care: benefits and costs. *British Journal of General Practice* 47, 699-703.
- Forum on Teamworking in Primary Healthcare. 2000: *Teamworking in primary healthcare realising shared aims in patient care, final report*. London: Royal Pharmaceutical Society of Great Britain and the British Medical Association.
- Freeman, G. and Hjortdahl, P. 1997: What future for continuity of care in general practice? *British Medical Journal* 314, 1870.
- Freeman, G.K. and Richards, S.C. 1993: Is personal continuity of care compatible with free choice of doctor? Patients' views on seeing the same doctor. *British Journal of General Practice* 43, 493-97.
- Galvin, K., Sharples, A. and Jackson, D. 2000: Citizens Advice Bureaux in general practice: an illuminative evaluation. *Health and Social Care in the Community* 8, 277-82.
- Gillam, S.J., Ball, M., Prasad, M., Dunne, H., Cohen, S. and Vafidis, G. 1995: Investigation of benefits and costs of an ophthalmic outreach clinic in general practice. *British Journal of General Practice* 45, 649-52.
- Gillam, S. and Levenson, R. 1999: Editorial - Linkworkers in primary care. An untapped resource. *British Medical Journal* 319, 1215.
- Goldberg, D., Jackson, G., Gater, R., Campbell, M. and Jennett, N. 1996: The treatment of common mental disorders by a community team based in primary care: a cost-effectiveness study. *Psychological Medicine* 26, 487-92.
- Greener, M. 2000: Patient choice stokes demand for primary care counselling services. *Primary Care Report* December, 12-15.
- Grogan, S., Conner, M., Wilits, D. and Norman, P. 1995: Development of a questionnaire to measure patients' satisfaction with general practitioners' services. *British Journal of General Practice* 45, 525-29.
- Guthrie, B. and Wyke, S. 2000: Does continuity in general practice really matter? *British Medical Journal* 321, 736-37.
- Halliwell, S., Sibbald, B. and Rose, S. 1998: *A bibliography of skill mix in primary care, the sequel*. Manchester: National Primary Care Research and Development Centre.
- Hassell, K., Rogers, A. and Noyce, P. 2000: Community pharmacy as a primary health care resource: a framework for understanding pharmacy utilization. *Health and Social Care in the Community* 8, 40-49.
- Heywood, P. 2000: The changing character of service provision. *Contemporary primary care the challenges of change*. Buckingham: OU Press.
- Hindler, C., Nazareth, I., King, M., Cohen, J., Farmer, R. and Gerada, C. 1995: Drug users' views on general practitioners. *British Medical Journal* 310, 302.
- Hjortdahl, P. and Laerum, E. 1992: Continuity of care in general practice: effect on patient satisfaction. *British Medical Journal* 304, 1287-90.
- Howie, J.G.R., Heaney, D.J., Maxwell, M., Walker, J.J., Freeman, G.K. and Rai, H. 1999: Quality at general practice consultations: cross sectional survey. *British Medical Journal* 319, 738-43.
- Hull, F.M. and Hull, F.S. 1984: Time and the general practitioner: the patient's view. *Journal of the Royal College of General Practitioners* 34, 71-75.
- Jenkins-Clarke, S., Carr-Hill, R., Dixon, P. and Pringle, M. 1997: *Skill mix in primary care. A study of the interface*

- between the general practitioner and other members of the primary health care team. University of York: Centre for Health Economics.
- Katon, W., Von Korff, M., Lin, E., Simon, G., Walker, E., Bush, T. and Ludman, E. 1997: Collaborative management to achieve depression treatment guidelines. *Journal of Clinical Psychiatry* 58, 20–23.
- Kaim-Caudle, P.R. and Marsh, G.N. 1975: Patient-satisfaction survey in general practice. *British Medical Journal* 1, 262–64.
- Kinnersley, P., Anderson, E., Parry, K., Archard, L., Turton, P., Stainthorpe, A., Fraser, A., Butler, C.C. and Rogers, C. 2000: Randomized controlled trial of nurse practitioner versus general practitioner care for patients requesting 'same day' consultations in primary care. *British Medical Journal* 320, 1043–48.
- Larsson, B.W. 1999: Patients' views on quality of care: age effects and identification of patient profiles. *Journal of Clinical Nursing* 8, 693–700.
- Lewis, J.R. 1994: Patients views on quality care in general practice: literature review. *Social Science and Medicine* 39, 655–70.
- Little, P., Everitt, H., Williamson, I., Warner, G., Moore, M., Gould, C., Ferrier, K. and Payne, S. 2001: Preferences of patients for patient centred approach to consultation in primary care: observational study. *British Medical Journal* 322, 468–72.
- Mahon, P.Y. 1994: An analysis of the concept 'patient satisfaction' as it relates to contemporary nursing care. *Journal of Advanced Nursing* 24, 1241–48.
- Mangen, S.P. and Griffith, J.H. 1982: Patient satisfaction with community psychiatric nursing: a prospective controlled study. *Journal of Advanced Nursing* 7, 477–82.
- McCull, E., Thomas, L. and Bond, S. 1996: A study to determine patient satisfaction with nursing care. *Nursing Standard* 10, 34–38.
- McKinstry, B. 2000: Do patients wish to be involved in decision making in the consultation? A cross sectional survey with video vignettes. *British Medical Journal* 321, 867–71.
- Morrell, D.C., Evans, M.E., Morris, R.W. and Roland, M.O. 1986: The 'five minute' consultation: effect of time constraint on clinical content and patient satisfaction. *British Medical Journal* 292, 870–73.
- Murphy, E., Kinmonth, A. and Marteau, T. 1992: General practice based diabetes surveillance: the views of patients. *British Journal of General Practice* 42, 279–83.
- Murray, S.A. and Paxton, F. 1993: Nurses or doctors: Patient choice in family planning. *Health Bulletin* 51, 394–98.
- NHS Executive. 1999: *Patient and public involvement in the new NHS* <http://www.nhsbeacons.org>, retrieved 9 December, 2002.
- NHS Executive. 2000: *NHS beacons*. <http://www.nhsbeacons.org/>, retrieved 9 December, 2000.
- Neuberger, J. 1998: Primary care: core values patients' priorities. *British Medical Journal* 317, 260–62.
- O'Reilly, D., Stevenson, M., McCay, C. and Jamison, J. 2001: General practice out of hours service, variations in use and equality in access to a doctor: a cross sectional study. *British Journal of General Practice* 51, 625–29.
- Ovretveit, J., Mathias, P. and Thompson, T. 1997: *Inter-professional working for health and social care*. Hampshire: Macmillan Press Ltd.
- Paxton, F. and Heaney, D. 1997: Minor injuries units: evaluating patients' perceptions. *Nursing Standard* 12, 45–47.
- Paykel, E.S., Mangan, S.P., Griffith, J.H. and Burns, T.P. 1982: Community psychiatric nursing for neurotic patients: a controlled trial. *British Journal of Psychiatry* 140, 573–81.
- Phillips, D. and Brooks, F. 1998: Women users' views on the role and value of the practice nurse. *Health and Social Care in the Community* 6, 164–71.
- Poulton, B. 1995: Keeping the customer satisfied. *Primary Health Care* 5, 16–19.
- Poulton, B.C. 1996: Use of the consultation satisfaction questionnaire to examine patients' satisfaction with general practitioners and community nurses: reliability, replicability and discriminant validity. *British Journal of General Practice* 46, 26–31.
- Priest, R.G., Vize, C., Roberts, A., Roberts, M. and Tylee, A. 1996: Lay people's attitudes to treatment of depression: results of opinion poll for Defeat Depression Campaign just before it's launch. *British Medical Journal* 313, 858–59.
- Pritchard, A. and Kendrick, D. 2001: Practice nurse and health visitor management of acute minor illness in general practice. *Journal of Advanced Nursing* 36, 556–62.
- Rapport, F. and Maggs, C. 1997: Measuring care: the case of district nursing. *Journal of Advanced Nursing* 25, 673–80.
- Ross, F. and Tisser, J. 1997: The care management interface with general practice: a case study. *Health and Social Care in the Community* 5, 153–61.
- Salisbury, C.J. and Tettershall, M.J. 1988: Comparison of the work of a nurse practitioner with that of a general practitioner. *Journal of the Royal College of General Practitioners* 38, 314–16.
- Savage, R. and Armstrong, D. 1990: Effect of a general practitioner's consulting style on patients' satisfaction: a controlled study. *British Medical Journal* 301, 968–70.
- Sergison, M., Sibbald, B. and Rose, S. 1998: *Skill mix in primary care – a bibliography*. Manchester: National Primary Care Research and Development Centre.
- Shum, C., Humphreys, A., Wheeler, D., Cochrane, M. and Clement, S. 2000: Nurse management of patients with minor illnesses in general practice: multicentre, randomized controlled trial. *British Medical Journal* 320, 1038–43.
- Simpson, S., Corney, R., Fitzgerald, P. and Beecham, J. 2000: A randomized controlled trial to evaluate the effectiveness and cost-effectiveness of counselling patients with chronic depression. *Health Technology Assessment* 4, 36, www.hta.nhsweb.nhs.uk/execsumm/SUMM436.HTM, retrieved 9 December, 2002.
- Spiers, R. and Jewell, J.A. 1995: One counsellor, two practices: report of a pilot scheme in Cambridgeshire. *British Journal of General Practice* 45, 31–33.
- Staniszewska, S. and Ahmed, L. 1998: Patient expectations and satisfaction with health care. *Nursing Standard* 12, 34–38.

- Taylor, G.** 2001: Continuity is fine, but not for everything. *British Medical Journal* 322, 737.
- Thorsen, H., Witt, K., Hollanger, H. and Malterud, K.** 2001: The purpose of the general practice consultation from the patient's perspective – theoretical aspects. *Family Practice* 18, 638–43.
- Treadway, J.** 1983: Patient satisfaction and the content of general practice consultations. *Journal of the Royal College of General Practitioners* 33, 769–71.
- Turton, E.P.L.** 2000: Nurse management of patients. *British Medical Journal* 320, 1038–43.
- Venning, P., Durie, A., Roland, M., Roberts, C. and Leese, B.** 2000: Randomized controlled trial comparing cost effectiveness of general practitioners and nurse practitioners in primary care. *British Medical Journal* 320, 1048–53.
- Wiles, R.** 1997: Empowering practice nurses in the follow-up of patients with established heart disease: lessons from patients' experiences. *Journal of Advanced Nursing* 26, 729–35.
- Williams, B.** 1994: Patient satisfaction: a valid concept? *Social Science and Medicine* 38, 509–16.
- Williamson, V.** 1995: Personal care and teamwork in primary care: the patient's perspective. *Journal of Interprofessional Care* 9, 101–106.

A public health approach to health needs assessment at the interface of primary care and community development: findings from an action research study

M. Horne and J. Costello School of Nursing, Midwifery and Health Visiting, University of Manchester, Manchester, UK

This paper describes how a health needs assessment of a specified community was conducted using action research. The study involved local people and a multiagency steering group, within a primary health care setting. Community development approaches were applied because of the potential it has to address some of the fundamental issues that lead to poor health. A multimethod approach was used to gather data using quantitative and qualitative approaches. Six focus groups, with varying sections of the community, were used to elicit community perceptions of their health needs. Data triangulation was used in order to identify differences and similarities in each of the methods. The outcomes identified disparities in health needs between the areas assessed due to differences in socio-economic variances. One area experienced a greater level of deprivation using the Jarman index. The most common forms of ill health in the community were heart disease, cerebrovascular disease, asthma and diabetes. The assessment identified a need for more health promotional work to be carried out by health care professionals, i.e., annual health checks. A number of outcomes confirmed the existence of well-known difficulties in accessing health care, such as difficulties with physical distance to secondary care services, as well as the length of the waiting time at the outpatient departments. It was also apparent that there was a poor understanding of primary health care services and the role and function of the varying health care professionals, particularly amongst the ethnic minority population. The assessment highlighted a number of issues, including obvious benefits, which may accrue from this process for primary care groups and primary care trusts in identifying the health needs of their local populations and subsequent development of the health improvement programmes with the health authority. The discussion raises issues concerning the impact that these changes have on collaboration between varying professional groups and users of services in the planning and delivery of services in order to reduce inequality in health.

Key words: action research; community development; Health Needs Assessment; primary care; public health; user/community participation/involvement

Introduction

This paper describes how a health needs assessment was carried out in one community within one

north west region. The current practice of health visitors (HV), district nurses (DN), school nurses (SN) and practice nurses (PN) often involves undertaking some form of caseload profile of individuals or families and has become an established part of their role (Billings, 1996; Billings and Cowley, 1995; Cook, 1999; Luker, 1996). The subsequent development of this activity has resulted in collaboration between members of the primary

Address for correspondence: Maria Horne, School of Nursing, Midwifery and Health Visiting, University of Manchester, Gateway House, Picadilly South, Manchester M60 7LP. Email: MariaHorne@man.ac.uk