

Sadler, Stacey Claire (2006) Exploring the interprofessional relationships between community pharmacists and general practitioners undertaking a collaborative medicines management service. PhD thesis, University of Nottingham.

Access from the University of Nottingham repository:

<http://eprints.nottingham.ac.uk/13580/1/431333.pdf>

Copyright and reuse:

The Nottingham ePrints service makes this work by researchers of the University of Nottingham available open access under the following conditions.

- Copyright and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners.
- To the extent reasonable and practicable the material made available in Nottingham ePrints has been checked for eligibility before being made available.
- Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.
- Quotations or similar reproductions must be sufficiently acknowledged.

Please see our full end user licence at:

http://eprints.nottingham.ac.uk/end_user_agreement.pdf

A note on versions:

The version presented here may differ from the published version or from the version of record. If you wish to cite this item you are advised to consult the publisher's version. Please see the repository url above for details on accessing the published version and note that access may require a subscription.

For more information, please contact eprints@nottingham.ac.uk

**EXPLORING INTERPROFESSIONAL
RELATIONSHIPS BETWEEN COMMUNITY
PHARMACISTS AND GENERAL
PRACTITIONERS UNDERTAKING A
COLLABORATIVE MEDICINES MANAGEMENT
SERVICE**

Stacey Claire Sadler, MSc, BPharm

Thesis submitted to the University of Nottingham for the
degree of Doctor of Philosophy

March 2006

ABSTRACT

To improve the outcomes of drug therapy, there is increasing interest in the community pharmacist providing medicines management services (MMS) (Department of Health, 2000b, 2003a). In 2001, the Department of Health funded the Community Pharmacy Medicines Management Project (CPMMP) to evaluate the introduction of a community pharmacy led MMS.

This thesis set out to critically assess the views and experiences of community pharmacists and general practitioners (GPs) participating in the CPMMP; exploring how relationships and perceptions of each other could influence community pharmacists carrying out a MMS, from the viewpoint of both community pharmacists and GPs.

This is a qualitative study whereby eight focus groups were conducted with thirty five community pharmacists, and semi-structured telephone interviews were carried out with twenty one GPs and twenty eight community pharmacists. Data was analysed using the broad principles of Grounded Theory (Glaser and Strauss, 1967).

Almost all pharmacists and GPs stated they had a good working relationship with each other prior to the MMS commencing, although a number of attitudinal barriers were identified. These included professional hierarchy, GPs' lack of awareness of a pharmacist's training and role in health care, and concerns that commercial interests could potentially affect a community pharmacist's advice. However, these data suggested that where there was an

established relationship between the two professions, the most positive feedback about the MMS was reported.

These data also suggested that some GPs were not supportive for community pharmacists to undertake a MMS and were generally unwillingly for the community pharmacist to have full access to patients' medical records. There were also some concerns around boundary encroachment.

The project had a limited impact on improving relationships between community pharmacists and GPs, with relationships and GPs' perceptions remaining unaltered in many instances. This piece of research has highlighted that attitudinal barriers need to be addressed in order to accomplish effective collaborative working between community pharmacists and GPs.

PRESENTATIONS AND PUBLICATIONS

Presentations

Centre for Social Research in Health and Healthcare Seminar (Nottingham, December 2004). Oral Presentation: The Community Pharmacy Medicines Management Project.

11th Health Services Research and Pharmacy Practice Conference (Reading March 2005). Oral presentation: General Practitioners' Perceptions and Experiences of Interprofessional Collaboration with Community Pharmacists.

Papers

Bissell P, Sadler S, Anderson C, Avery A, on behalf of the Community Pharmacy Medicines Management Project Evaluation Team. General Practitioners' (GPs) views and experiences of collaborative working with community pharmacists to deliver a medicines management service: qualitative study. Family Practice (publication pending).

ACKNOWLEDGEMENTS

Firstly, I would like to thank my supervisors, Dr. Paul Bissell and Professor Claire Anderson. I particularly wish to thank Paul for his help and advice concerning the focus groups and for his guidance and suggestions during the course of this thesis. I also wish to thank Dr. Duncan Short for helping me to conduct the focus groups, Jane Doughty for her help in transcribing some of the qualitative interviews, and Kathryn Wass for helping me format this thesis.

I would also like to say an enormous thank you to my parents, family and friends for their endless words of encouragement, patience and support over the past five years. You have all endured the moods, stress and cancelled social arrangements which have frequently accompanied this thesis - I am eternally grateful. A special thank-you to Andrea Clarke, Ivan Cartwright, Caroline Davis, Emma Grace, Briony Leighton and Tracey Thornley for giving their time to proof read chapters and point out the importance of punctuation!

Finally, I would like to thank the community pharmacists and general practitioners in this project for giving up their time to be interviewed, and providing me with an insight into the attitudes and perceptions that exist between the two professions. I hope this research highlights the importance of building good interprofessional relationships to augment future collaborative work between pharmacists and physicians.

CONTENTS

	Page
ABSTRACT	2
PRESENTATIONS AND PUBLICATIONS	4
ACKNOWLEDGEMENTS	5
LIST OF CONTENTS	6
List of Tables.....	16
List of Figures.....	17
List of Appendices.....	18
List of Abbreviations.....	19
1. INTRODUCTION	
1.1 Origins and development of the thesis.....	22
1.2 The project and its framework.....	25
1.3 Structure of the thesis.....	26
2. RE-DEFINING THE COMMUNITY PHARMACIST'S ROLE	
2.1 Introduction.....	30
2.2 Literature review on the community pharmacist's role....	31
2.3 The origins of the community pharmacist's role.....	32
2.4 The effects of large scale manufacturing on the.....	32
community pharmacist's role	
2.5 Increased 'consumerism' in health.....	33

	Page
2.6	Reprofessionalisation..... 35
2.7	Health policy under the Conservative government..... 37
2.8	Health policy under New Labour..... 40
2.9	Pharmacy in the Future..... 40
2.10	Medicines management initiatives within the UK..... 43
	2.10.1 Medicines management initiatives in.....45
	Northern Ireland
	2.10.2 Medicines management initiatives in Scotland..... 46
	2.10.3 Medicines management initiatives in Wales..... 47
2.11	Other health policy developments affecting the 47
	pharmacy profession
	2.11.1 The Crown Reports..... 48
	2.11.2 Contractual frameworks for 49
	community pharmacists and GPs
2.12	Summary..... 51
2.13	Is pharmacy a profession?..... 52
2.14	Summary..... 56
2.15	The changing role of the physician..... 56
2.16	Physicians' response to the extension of the..... 61
	pharmacist's role
2.17	Effects of collaboration on relationships between..... 68
	physicians and pharmacists
2.18	Physicians' response to the extension of the nursing role.70
2.19	Summary..... 75

3. THE POTENTIAL ROLE OF THE COMMUNITY PHARMACIST IN MEDICINES MANAGEMENT INITIATIVES

3.1	Introduction.....	77
3.2	Coronary heart disease.....	78
3.3	Risk factors for CHD.....	79
3.4	The National Services Framework for.....	80
	coronary heart disease	
	3.4.1 Primary interventions.....	81
	3.4.2 Secondary interventions.....	82
3.5	The use of aspirin, statins and beta-blockers in.....	82
	clinical practice	
3.6	The concept of pharmaceutical care.....	86
3.7	The concept of medicines management.....	88
3.8	Previous medicines management services conducted	
	by pharmacists.....	89
	3.8.1 Pharmacists and hypertension trials.....	91
	3.8.2 Pharmacists and angina trials.....	92
	3.8.3 Pharmacists and lipid management.....	94
	3.8.4 Pharmacists and smoking cessation.....	98
3.9	Summary.....	98
3.10	The Community Pharmacy Medicines.....	103
	Management Project.	
3.11	Aims and objectives.....	103

	Page
3.12 The research team.....	104
3.13 Project design and the medicines.....	105
management intervention	
3.14 Primary and secondary outcome measures.....	106
3.15 Pilot sites.....	107
3.16 Data collection.....	109
3.17 Rationale for this thesis.....	110
3.18 Summary.....	112

4.0 AIMS AND OBJECTIVES

4.1 Aims of the study.....	113
4.2 Objectives.....	113

5.0 METHODOLOGY

5.1 Introduction.....	115
5.2 Differences and similarities between qualitative and.....	115
quantitative research	
5.3 When to use qualitative research.....	118
5.4 Sampling in qualitative research.....	118
5.5 Criticisms of qualitative research.....	119
5.6 The collection of qualitative data.....	122
5.6.1 Qualitative interviews.....	122
5.6.2 Focus groups.....	124

	Page
5.7	Qualitative data analysis..... 126
	5.7.1 Theoretical sampling and theoretical saturation... 127
	5.7.2 Constant comparison..... 128
	5.7.3 Criticisms of Grounded Theory..... 130
	5.7.4 Computer-assisted qualitative data analysis..... 130
5.8	The research approach in this project..... 131
5.9	The use of qualitative research methods within this..... 134
	research
	5.9.1 The use of focus groups within this research..... 134
	5.9.2 The use of semi-structured interviews within..... 135
	this research
5.10	Ethics..... 136
5.11	Settings and participants..... 136
5.12	Pharmacist pilot data collection..... 137
5.13	Main data collection – focus groups with community..... 137
	Pharmacist
	5.13.1 Southwark pilot site..... 138
5.14	Main data collection – follow-up semi-structured..... 139
	Interviews with community pharmacists
5.15	Semi-structured interviews with GPs..... 141
5.16	Data analysis and validation..... 144
5.17	Summary..... 146

6.0 COMMUNITY PHARMACISTS' INITIAL EXPERIENCES OF UNDERTAKING COLLABORATIVE WORK WITH GPs

6.1	Introduction.....	147
6.2	Community pharmacists' current working relationship..... with GPs	148
6.3	Working relationship with GPs during the MMS.....	152
6.4	How community pharmacists believe GPs perceive them...	153
6.5	General assessment of the MMS.....	156
6.6	Motivation of community pharmacists.....	159
6.7	Relationship with patients during the MMS.....	162
6.8	The community pharmacy Vs. the GP practice as the..... setting for a MMS	167
6.9	Identified barriers to community pharmacist's involvement in a MMS	169
6.9.1	Lack of GP engagement.....	169
6.9.2	The extended role of the practice nurse.....	172
6.9.3	Patient selection.....	175
6.9.4	Lack of access to patients' medical records.....	179
6.9.5	Organisational problems.....	182
6.9.6	Inadequate consultation areas.....	183
6.10	Future development of a MMS.....	185
6.11	Summary.....	187

7.0 GPs' VIEWS AND EXPERIENCES OF COLLABORATIVE WORK WITH COMMUNITY PHARMACISTS

7.1	Introduction.....	190
7.2	GPs' current working relationships with community..... pharmacists	191
7.3	Working relationships with community pharmacists..... during the MMS	194
7.4	GPs' perspectives on the differences between practice..... and community pharmacists	195
7.5	Expertise of the community pharmacist to undertake..... medication reviews	197
7.6	GPs' perspectives on collaboration with community..... pharmacists	200
7.7	General assessment of the MMS.....	206
7.8	Motivation to participate in the MMS.....	207
7.9	Clinical recommendations.....	209
7.10	Perceived advantages of community pharmacists..... carrying out a MMS	211
7.11	Concerns and barriers to community pharmacists..... undertaking a MMS	214
7.11.1	Commercial interests of a community pharmacist.....	216
7.11.2	Access to medical records.....	218
7.11.3	Communication of clinical information between... community pharmacists and GPs	221

	Page
7.11.4 The role of community pharmacists in medication reviews.....	224
7.12 Future roles for community pharmacists.....	228
7.13 The suitability of the community pharmacy premises.....	230
7.14 Attitudes towards the future development of a MMS.....	231
7.15 Summary.....	233

8. COMMUNITY PHARMACISTS' OVERALL EXPERIENCES OF UNDERTAKING COLLOBORATIVE WORK WITH GPs

8.1 Introduction.....	235
8.2 Community pharmacists' relationship with GPs.....	236
8.3 General assessment of the MMS.....	243
8.4 Motivation and achievements gained from..... undertaking a MMS	245
8.5 Community pharmacists' relationships with patients.....	247
8.6 Patient medication reviews.....	250
8.7 Clinical follow-up with patients over the twelve-month.... period	253
8.8 Difficulties encountered with the MMS.....	256
8.8.1 Access to medical notes.....	256
8.8.2 Reflections on GPs' involvement with the project...	257
8.8.3 Time constraints.....	261
8.8.4 Practice pharmacist in situ.....	262
8.8.5 Other identified barriers to undertaking a MMS.....	264

	Page
8.9 The MMS model in clinical practice.....	265
8.10 Summary.....	269
9.0 DISCUSSION	
9.1 Introduction.....	272
9.2 Section 1.....	274
9.2.1 Limitations of the study: methodological issues.....	274
9.2.2 Reflections on the analysis of data.....	278
9.2.3 Reflections on my role as a pharmacist undertaking....	280
Pharmacy Practice/Health Services Research	
9.2.4 Generalisability of the data and implications for.....	285
further research	
9.3 Section 2.....	287
9.3.1 Introduction.....	287
9.3.2 Perceived attitudinal barriers between community... pharmacists and GPs	288
9.3.3 Working relationships between community..... pharmacists and GPs	292
9.3.4 GPs' involvement in the MMS.....	296
9.3.5 Clinical interventions identified by community..... pharmacists	297
9.3.6 Communication of interventions.....	298
9.3.7 Established relationships between participating..... community pharmacists and GPs	302
9.3.8 Community pharmacist and GP collaboration.....	303

	Page
9.3.9 Access to patients' medical records.....	309
9.3.10 Undermining the GP/patient relationship.....	312
9.3.11 GP and nurse collaboration.....	313
9.3.12 Summary.....	315
9.4 Section 3.....	317
9.4.1 Introduction.....	317
9.4.2 Barriers identified by community pharmacists.....	317
9.4.3 Motivation of community pharmacists.....	321
9.4.4 Community pharmacists' views about boundary.....	328
encroachment into GPs' territory	
9.4.5 Summary.....	331
9.5 Conclusion.....	332
10. EPILOGUE	
10.1 Introduction.....	336
10.2 Addressing collaborative issues.....	337
10.2.1 Interaction between pharmacist and physicians.....	337
10.2.2 Training of pharmacists and physicians.....	340
10.2.3 Fostering relationships between professional.....	346
organisations at national and international levels	
10.3 Summary.....	348
REFERENCES.....	350
APPENDICES.....	383

LIST OF TABLES

		Page
Table 1.	Trial Characteristics – Pharmacists and Hypertension Management	95
Table 2.	Trial Characteristics – Pharmacists and Angina Management	97
Table 3.	Trial Characteristics – Pharmacists and Lipid Management	100
Table 4.	Trial Characteristics – Pharmacists and Smoking Cessation Management	102
Table 5.	Differences and Contrasts between Quantitative and Qualitative Research Strategies	116
Table 6.	The Number of Pharmacists Invited to the Focus Groups, the Number Which Stated They Were Willing to Attend and the Number of Pharmacists, who Actually Attended	139
Table 7.	Number of Community Pharmacy Interviews by Pilot Site	141
Table 8.	Number of GPs Interviewed	143
Table 9.	Individual Innovator Characteristics	327

LIST OF FIGURES

	Page
Figure 1. Patient Recruitment Process in the Community Pharmacy Medicines Management Project	108
Figure 2. The Processes and Outcomes in Grounded Theory	129

LIST OF APPENDICES

	Page
Appendix 1. The Community Pharmacy Medicines Management Team	383
Appendix 2. Community Pharmacist Semi-Structured Interview Questions (Pilot Data Collection)	384
Appendix 3. Focus Group Confirmation Letter Sent to Community Pharmacists	388
Appendix 4. Focus Group Invite Letter Sent to Community Pharmacists	389
Appendix 5. Community Pharmacists Framework Topics for the Focus Group	390
Appendix 6. Community Pharmacist Semi-Structured Interview Schedule	392
Appendix 7. Community Pharmacist Semi-Structured, Follow-up Interview Schedule	394
Appendix 8. Letter Sent to Practice Managers Requesting GP Interviews	397
Appendix 9. GP Semi-Structured Interview Schedule	398
Appendix 10. GP Semi-Structured Interview Schedule (Version Two)	401

LIST OF ABBREVIATIONS

BMA – British Medical Association

BMI – Body Mass Index

BP – Blood Pressure

BPCS – Behaviour Pharmaceutical Care Scale

CABG – Coronary artery by-pass graft

CAQDAS – Computer –assisted qualitative data analysis software

CCT – Controlled Clinical Trial

CHD – Coronary Heart Disease

CMP – Clinical Management Plan

CPMMP – Community Pharmacy Medicines Management Project

CPPE – Centre for Pharmacy Postgraduate Education

CVD – Cardiovascular disease

CWR – Collaborative Working Relationship

DoH – Department of Health

DRPs – Drug Related Problems

EO – Entrepreneurial Orientation

ERPS – Expanded role pharmacists

GMS – General Medical Services

GP – General Practitioner

GTN – Glyceryl trinitrate

HA – Health Authority

HC – Hypercholesterolaemia

HDL – High-density lipoprotein

HSR – Health Services Research

LDL – Low-density lipoprotein

LEPs – Leading Edge Practitioners

LPCs – Local Pharmaceutical Committees

LRCs – Local Research Coordinators

LREC – Local Research Ethic Committee

MI – Myocardial Infarction

MMS – Medicines Management Service

MONICA – Monitoring Trends and Determinants in Cardiovascular Disease

MREC – Multicentre Research Ethic Committee

NCEP – National Cholesterol Education Programme

NHS – National Health Service

NICE – National Institute of Health and Clinical Excellence

NPC – National Prescribing Centre

NSF – National Service Framework

OTC – Over-the-Counter

PAS – Pharmacists’ Action on Smoking

PCT – Primary Care Trust

PDGS – Pharmacy Development Groups

PIANA – Pharmacy in a New Age

PLMR – Pharmacist-led Medication Review

POM – Prescription Only Medicine

PPCM – Physician-Pharmacist Co-management Group

PSNC – Pharmaceutical Services Negotiating Committee

PTC – Pharmacotherapy Consultation Groups

RPSGB – Royal Pharmaceutical Society of Great Britain

RCT – Randomised Controlled Trial

UK – United Kingdom

USA – United States of America

**To the memory of my grandmother
Marjorie B. Sadler
(1910-1997)**

1. INTRODUCTION

1.1 Origins and development of the thesis

This thesis grew out of a commissioned piece of health services research (HSR), and an interest in how community pharmacists and general practitioners (GPs) relationships and perceptions of each other affected the ability of community pharmacists to develop new roles.

There have been drivers from within the pharmacy profession alongside external factors such as Government policies, which have called for community pharmacists to develop new roles beyond dispensing medication (Nuffield Foundation, 1986; Joint Working Party, 1992; Department of Health, 2000b, 2003a; Pharmaceutical Services Negotiating Committee, 2004). For example, the Department of Health (DoH) document 'Pharmacy in the Future- Implementing the NHS Plan' (Department of Health, 2000b), set a target date of 2004 for the implementation of schemes within primary care that allowed people to get more help from pharmacists in using their medicines. To provide this 'targeted support for patients' and to improve the outcomes of drug therapy, there is increasing interest in community pharmacists providing medicines management services (MMS) (Department of Health, 2000b, 2003a). MMS can include all aspects of the supply and use of medicines, from an individual patient medication review to a health promotion programme (National Prescribing Centre, 2002).

Inevitably, community pharmacists need to communicate and collaborate more extensively with GPs if they are to successfully accomplish this role

extension. Likewise, the support of GPs¹ is essential for pharmacists to successfully deliver a collaborative MMS, and to ensure the successful implementation of health care policies concerning community pharmacists, such as the new community pharmacy contract in England (Pharmaceutical Services Negotiating Committee, 2004). It is therefore important to understand how the relationship between community pharmacists and GPs, along with their perceptions of one another, could influence the ability of community pharmacists to develop new roles.

There are many empirical studies that have explored the feasibility of coordinating patient care between pharmacists and physicians in order to manage specific, chronic disease states (Bogden et al, 1998; Weinberger et al, 2002; Tsuyuki et al, 2002; Clifford et al, 2002) or aid health promotion incentives (Bond et al, 1999; Zermansky et al, 2001; Maguire et al, 2002). Many of these studies have concluded that pharmacists' interventions can have a positive impact on clinical outcomes (for example, improved blood pressure control), economic outcomes (for example, rationalising a patient's medication to reduce drug costs), and improve patient satisfaction regarding their treatment. However, few of these have explored in depth, or commented on how the relationship between the two professions, or attitudinal factors had impacted on the success of the outcomes described above.

Whilst it could be hypothesised that improving the relationship or contact between the pharmacist and physician would have a positive effect on collaborative working, the literature is conflicting. Some studies have

¹ The term 'GP' has been used in this thesis when the literature has specifically stated that GPs were involved in the study. Where the literature has not clarified this, the term 'physician' has been used.

concluded that improving relationships between physicians and pharmacists had a significant, positive, impact on the attitude of physicians towards pharmacists extending their role (Bogden et al, 1998; Muijers et al, 2003). However, other authors (Adamcik et al, 1986; Chen, 2001a; Hughes and McGann, 2003) have concluded that improving relationships has an insignificant or negative effect on collaboration, as it can threaten social relationships or reinforce the physicians' existing and sometimes negative view of the community pharmacist.

Furthermore, the available literature suggests that there are significant attitudinal barriers shaping the scope for collaboration between physicians and pharmacists. These include professional hierarchy (Hughes and McGann, 2003), physicians' lack of awareness of a pharmacist's training and role in health care (Smith et al, 2002; Hughes and McGann, 2003) and concerns that commercial interests could potentially affect a community pharmacist's clinical advice (Adamcik et al, 1986; Spencer and Edwards, 1992; Ellis et al, 1992; Hughes and McGann, 2003).

The literature also suggests that physicians have often seen the extension of the pharmacist's role as boundary encroachment (Eaton and Webb, 1979; Adamcik et al, 1986; Gilbert, 1997, 1998a-c, 2001; Edmunds and Calnan, 2001). Some sociologists have argued that community pharmacists may challenge medicine's autonomy and dominance by trying to extend their roles into more clinical domains such as prescribing and medicines management (Elston, 1999; Britton, 2001). Consequently, as pharmacists have tried to extend their role, physicians have opposed this and exercised a tight control over their task boundaries (Adamcik et al, 1986; Gilbert, 1998a-c, 2001). This

is supported by literature that has investigated GPs' views on the extension of the community pharmacist's role into more clinical areas, such as monitoring blood pressure or deciding appropriate prescription medication for a patient (Ritchey and Raney, 1981; Spencer and Edwards, 1992; Ellis et al, 1992; Bleiker and Lewis, 1998; Ewen and Triska, 2001; Hughes and McCann, 2003). These studies demonstrated that whilst GPs generally favoured community pharmacists extending their roles and often welcomed a greater degree of collaboration with them, GPs often identified roles which they believed were appropriate for community pharmacists to become more involved with. In these studies there was a general trend for GPs to be least supportive of tasks that allowed the pharmacist the opportunity to make independent, autonomous decisions regarding treatment. This led to a view that pharmacy's professional development has been hindered largely because of medicine's control over its clinical autonomy (Edmunds and Calnan, 2001; Gilbert, 1998a-c, 2001). This research set out to explore these arguments in more depth using data from a specific piece of commissioned research involving collaboration between community pharmacists and GPs.

1.2 The project and its framework

This thesis is based on an evaluation of a specific service which involved collaborative working between community pharmacists and GPs. This service was named the Community Pharmacy Medicines Management Project (CPMMP). The CPMMP was developed by the Pharmaceutical Services Negotiating Committee (PSNC), funded by the DoH and evaluated by an independent research team. This project aimed to evaluate the provision by community pharmacists of a MMS for patients with coronary heart disease

(CHD), primary and secondary objectives are detailed in Chapter 3. I was employed as a Research Fellow to investigate specific objectives relating to the evaluation of this service. I also had the opportunity to undertake a part-time PhD and used the data collected as part of the evaluation, in order to explore specific questions about collaborative working.

The specific questions driving the research were how relationships and attitudinal factors between community pharmacists and GPs impacted on the success of community pharmacists conducting a MMS. I also wanted to establish whether relationships and perceptions altered between the two professions during the course of the project. Finally, I wanted to frame this research using concepts from the sociological literature. For example, did the participating pharmacists and GPs view the extended role that the community pharmacists were undertaking in this project as boundary encroachment, or as tasks that GPs were delegating to them?

1.3 Structure of the thesis

The thesis is laid out in a conventional format. Chapter 2 is the first of two literature review chapters. This chapter explores the factors that have influenced pharmacists to redefine their role and how this in turn has affected their relationships with physicians. Firstly, I discuss the literature about how pharmacists have attempted to redefine their role in response to changes from the pharmaceutical industry and other developments, such as increased consumerism. An overview of contemporary health policy developments is then provided and I discuss the factors which have shaped health policies and

how this has impacted on the community pharmacist's role and in turn how this has affected their professional status.

In the final part of this chapter the literature on how the medical profession has responded to both pharmacists and nurses extending their clinical role is examined. An overview of physicians' views regarding the extension of the pharmacist's role is detailed in order to ensure a thorough grounding for what follows.

Chapter 3 provides details about the National Services Framework (NSF) for CHD and highlights the potential medicines management role for community pharmacists. The chapter then looks at studies conducted where pharmacists, usually community pharmacists, have had a medicines management role in CHD. These studies generally demonstrated that pharmacists have had a beneficial effect on clinical outcomes, and have improved patient satisfaction concerning their treatment. Again, few of these studies have explored how the relationship and attitudinal factors between the pharmacist and physician have impacted on the success of the collaborative intervention. Finally in this chapter, the CPMMP will be discussed. An overview of the project is detailed, as the project provided the subjects and time frames from which I collected my data.

Chapter 4 sets out the aims and objectives for this piece of research. Chapter 5 goes on to detail the methods used to address the specific research questions, with justifications about why they were used, and the practicalities and problems experienced in using these methods.

Chapter 6 is the first of three data chapters exploring the relationship and attitudinal factors between the community pharmacists and GPs participating in the CPMMP. In this first data chapter, findings from focus groups with thirty-five community pharmacists and telephone interviews with two community pharmacists are reported. The data collection focused on the working relationship between community pharmacists and GPs prior to, and during the first four months of the MMS commencing, establishing how community pharmacists thought GPs perceived them. Pharmacists also report their experiences and views about undertaking a MMS role, helping to establish any potential and actual barriers which could limit them from conducting this role.

Chapter 7 explores GPs' perspectives of community pharmacists conducting this MMS. This chapter presents data from telephone interviews with twenty-one GPs, conducted six months after the introduction of the MMS. The chapter reports on GPs' relationships with and perceptions of community pharmacists, along with their experiences and views about community pharmacists conducting a MMS.

Chapter 8 is the final data chapter and turns its attention back to community pharmacists' views of collaborative working at the end of the MMS. This chapter presents data from telephone interviews with twenty-eight pharmacists and explores whether the MMS impacted on their working relationship with their local GPs and their overall views about community pharmacists conducting a MMS.

Chapter 9 discusses the issues raised from my findings. Also discussed are my reflections upon being involved in a large randomised controlled trial, the

research methods used, and how my professional background may have impacted on the data collected. I draw together the material put forward in the three data chapters to consider how the initial research questions can be answered. The chapter further expands on the barriers identified by the community pharmacists and GPs to the extension of the community pharmacist's role, and how they differ from and support the existing literature. Finally, I conclude this chapter by discussing whether community pharmacists and GPs saw this role extension for community pharmacists as boundary encroachment or task delegation.

Chapter 10 is the final chapter of this thesis, and looks at the lessons that may be learnt from this piece of research. It aims to highlight the importance of breaking down potential attitude and relationship barriers between pharmacists and physicians before commencing collaborative work. I support this argument by exploring the literature on different initiatives and strategies which have been suggested, or used to break down attitudinal barriers and enhance collaborative working between pharmacists and physicians.

2. RE-DEFINING THE COMMUNITY

PHARMACIST'S ROLE

2.1 Introduction

This chapter explores the factors that have influenced the profession of pharmacy, in particular community pharmacy to attempt to redefine its role, and in turn how physicians have responded to these attempts at role extension. Firstly, I explore the literature looking at how community pharmacy has responded to changes from the pharmaceutical industry surrounding the manufacture and distribution of medicines, along with other potential factors such as greater 'consumerism' in health. I then aim to give an overview of health policy developments that have occurred during the last twenty-five years that have affected the profession of pharmacy. I discuss the key factors which have shaped health policy over this period, and how this in turn has impacted on community pharmacy. I provide an overview of the main medicine management initiatives piloted in the United Kingdom (UK). Also considered is how these changes have affected pharmacy's professional status.

Historically, physicians have diagnosed and prescribed, while pharmacists have compounded and dispensed medications (Smith et al, 2002).

However, with changing Government reforms, other healthcare professions extending their roles, and greater consumerism, it is argued that this right has been challenged (Britten, 2001). In the final part of this chapter, the literature exploring how the medical profession has responded to both pharmacists and nurses attempting to extend their roles in health care will be discussed.

2.2 Literature review on the community pharmacist's role

Publications on MEDLINE, EMBASE, CINAHL, PHARMLINE and the British Nursing Index, were searched from January 1966 to present day. This broad time frame was chosen to capture any medical and sociological literature looking at how community pharmacists' roles had changed, and to incorporate any initiatives which had resulted from Government and independent policy recommendations for the pharmacy profession. A combination of the following terms were used: General Practitioners, GPs, physician(s), collaboration, role extension, prescribing, medical profession, power, nurses/nursing, pharmacists/pharmacy, community pharmacists, relationships, interdisciplinary relationships, professional relationships, professions, deprofessionalisation, consumerism and professionalism. Inclusion terms were English language and studies (from any country) which involved the following:

- Relationship/collaboration between physicians and pharmacists
- Relationship/collaboration between physicians and nurses
- Extending the role of pharmacists and nurses
- The perception of the community pharmacist from the viewpoint of community pharmacists, physicians and nurses

Studies that involved collaboration between physicians, pharmacists and nurses were discarded if the primary outcomes/objectives were not concerned with the interaction or relationship element to the collaboration.

2.3 The origins of the community pharmacist's role

In the UK, the modern day pharmacist has roots dating back to a specialist sub-group (the apothecaries) set up within the Company of Grocers in the Middle Ages. In the 16th century, a Society of Apothecaries was formed, giving them a monopoly in compounding and dispensing (Traulsen et al, 2004). It became customary for an apothecary to accompany a physician on his house call. The physicians would diagnose and prescribe, whilst the apothecary would compound the remedy in their shop and return to the patient to administer it. The apothecaries acquired a great deal of medical knowledge from working with a physician and gradually began to prescribe for patients who frequented their shops. Gradually, the apothecaries extended their activities to visiting the sick at home, and began to diagnose and prescribe for them. They made no charge for medical advice but charged for the medicine. Consequently they treated most of the population, as only the rich could afford the service of a physician. Until the creation of the National Health Service (NHS) in 1948, community pharmacists often remained the first port of call for healthcare advice (Silcock et al, 2004). However, with the formation of the NHS they became independent contractors to this organisation, with their payments coming chiefly from dispensing rather than selling over-the-counter (OTC) or proprietary medicines (Silcock et al, 2004).

2.4 The effects of large scale manufacturing on the community pharmacist's role

The pharmacist's traditional role of compounding and formulating medicines, involved an understanding of and control of an exclusive field of

knowledge surrounding the chemistry, pharmacology and formulation of drugs. However, the role of community pharmacy has changed in recent years and their once exclusive field of knowledge, largely in compounding and formulating medicines has diminished. This has been due to the advent of large-scale manufacturing of medical products in the latter half of the twentieth century, medical specialisation and increased medical technology. The predominance of original patient pack dispensing has diminished the pharmacist's compounding and formulating skills. The presence of patient information leaflets supplied with medication (these leaflets contain information about dosage, dosage frequency and possible adverse effects) has further reduced the advice function of the pharmacist. Increased computerisation in GP practices and pharmacies, mean that individual patient records and product information are produced. These programmes highlight potential drug interactions and produce appropriate warnings, again restricting and diminishing the ability of pharmacists to exercise clinical judgment. It has been argued that the community pharmacist's work has become increasingly routine and deskilled, and has limited their scope to utilise their own unique knowledge and skills in their day-to-day tasks (Harding and Taylor, 2002). The main health-related services community pharmacists now provide is the dispensing of prescriptions and supervising the sale of OTC medicines (Hibbert et al, 2002).

2.5 Increased 'consumerism' in health

Another factor that is thought to potentially have had impacted on the role of the community pharmacist is the present day 'consumer' of health care services. Historically, the patient has been regarded as occupying a submissive position, with implications of dependency and unquestioning

compliance with medical instructions. However, this emphasis on social control and the 'docile' body is felt to be less appropriate when considering the present day 'consumer' of health care services (Williams and Calnan, 1996). The rise of consumerism is regarded as one of the fundamental developments shaping health service delivery within the UK (Nettleton, 1995). Government reforms and policies endorsed a view that service users should become more empowered in their relationships with health professionals. This has led to a more demanding consumer and empowered patient, who is more able and willing to question the practices of the health care professionals (Varnish, 1998).

Higher levels of education, greater media coverage of medical issues, and an increased availability of medical information have also reduced the knowledge gap between the pharmacist and patient. The increased deregulation of Prescription Only Medicines (POMs) has increased the range of medicines available for purchase. This has offered new opportunities for the self-treatment of ailments by the consumer (Blenkinsopp and Bradley, 1996).

There have been limited studies conducted regarding how the general public, perceive community pharmacists. However, those studies that have looked into this, confirm that the general public view community pharmacists as having little autonomy and often state that they would not consult them first line for advice (even regarding minor ailments). They also had clear ideas of suitable roles that community pharmacists should undertake (Varnish, 1998; Bell et al, 2000; Iverson et al, 2001). For example, the general public was in favour of community pharmacists providing advice in areas such as 'healthy living' or 'minor ailments' but

were less in favour of roles where the pharmacist would have access to patient medical records (Bell et al, 2000; Iverson et al, 2001).

In Varnish's study (1998), there was a question over the autonomy of the pharmacist's work, particularly in the area of the interprofessional boundary between a pharmacist and a doctor. The participants often saw the pharmacist as having 'expert knowledge of drugs', which was often considered to be superior to a doctors but the doctor was still seen as being ultimately responsible for the patient's health. Therefore the pharmacist was perceived to be answerable to the doctor and had little responsibility for the choice of medication or freedom to exercise their professional judgement.

2.6 Reprofessionalisation

In response to the potential de-skilling brought about by the processes described above, representatives of the pharmacy profession have tried to redefine the community pharmacist's role (Edmunds and Calnan, 2001). Pharmacists have tried to promote themselves as providers of a broader range of services than has previously been the case. The profession's response to their loss of function and role ambiguity was a movement towards 'reprofessionalisation', which began in the 1960s and has continued today (Birenbaum, 1982).

The concept of reprofessionalisation reflects the strategies used by pharmacists to enhance their professional status. The process of reprofessionalisation took on different forms, but had a common thread of moving away from an emphasis on technical tasks e.g. compounding, towards a closer interaction with physicians and other health professionals

and a stronger pharmacist-patient relationship (Adamcik et al, 1986). The development of 'clinical pharmacy' in the hospital setting has been one of the major achievements of pharmacy reprofessionalisation (Hepler, 1985; Cotter et al, 1994). More active involvement in patient care has been less successful in the community setting, due to geographical isolation from the rest of the primary healthcare team and a lack of access to patients' medical records (Cotter et al, 1994).

Hospital pharmacists had the advantage of being less isolated from the rest of the secondary health care team and had greater accessibility to patient's medical records, allowing them to make more informed pharmaceutical decisions and become integrated in the secondary health care team by attending ward rounds and clinics (Cotter et al, 1994). Likewise, as community pharmacists' main payment came from dispensing, their day-to-day role had more structural and contractual restraints, with less freedom to develop clinical roles (Silcock et al, 2004).

Another factor that potentially has made it difficult for community pharmacists to implement new roles has been supervision restrictions placed on them. The Medicines Act 1968 required that pharmacy and POMs be sold or supplied by a pharmacist, or by someone acting under the supervision of a pharmacist. However, the Act did not specify that the pharmacist had to be physically present in the pharmacy to do this, but supervision was interpreted to mean that the pharmacist must be aware of the transaction and be in a position to intervene. It could be argued that pharmacists were partly responsible for this restriction placed on them. In 1989, a special general meeting was held to discuss whether or not a pharmacist always needed to be a final checker in the dispensing process. Pharmacists against the recommendations of the then Royal

Pharmaceutical Society of Great Britain (RPSGBP) Council voted to remain the final checkers. This action immediately restricted the individual pharmacist's freedom to ensure responsible and accountable dispensing and supply in ways to suit his or her practice. This confirmed the policy that pharmacists should never leave their premises for long. It is now hoped that these requirements are to be changed under the Health Bill, to allow registered and suitably trained staff to supervise dispensing and medicines sales without direct supervision by a pharmacist. This would enable pharmacists to leave their pharmacies and offer a wider range of services (Anon., 2005).

As the next section of this chapter demonstrates there have been drivers from within the pharmacy profession alongside external factors such as Government health policies, which have called for community pharmacists to develop their roles beyond dispensing (Nuffield Foundation, 1986; Joint Working Party, 1992; Department of Health, 2000b, 2003a; Pharmaceutical Services Negotiating Committee, 2004). These will be detailed and discussed in chronological order, starting with health policy developments under the Conservative government.

2.7 Health policy under the Conservative government

In 1979 the Conservative government came into office. Over the next 15 years health policy changed as a consequence of both economic and political influences on the NHS. This halted the rapid expansion of public services and public expenditure that had occurred since the setting up of the NHS. The consequence for the NHS in the first part of the 1980's was that budgets grew much more slowly, with the emphasis on making the NHS more business like using existing budgets more efficiently (Ham,

2004). This led to a series of policies intended to increase efficiency including the requirement that Health Authorities (HAs) should generate efficiency savings every year, to release funds from existing budgets to support new service developments.

In relation to the profession of pharmacy, during this period the Nuffield Report (Nuffield Foundation, 1986) was published. This was a landmark report on the future development of the pharmacy profession, that specifically recognised that pharmacists were a highly trained and under utilised healthcare resource. The report acknowledged that the community pharmacist's role had failed to develop, and recommended structural and contractual changes to free community pharmacists from dispensing. Few of the report's recommendations were implemented, although new activities that were implemented included keeping pharmacy-held patient medication records, health promotion and pharmaceutical advice for residential care homes. However, it could be argued that these activities were generally not contentious in nature and posed little threat to GPs' autonomy.

The major reforms made by the Conservative government left community pharmacists virtually untouched in the creation of the internal market, trust status hospitals and fund-holding GPs. However, these reforms did affect pharmacy practice services as primary care started to become a higher priority due to HAs and fundholders undertaking a reassessment of expenditure patterns. As HAs began allocating drug budgets, fund-holders saw the need for help to make their prescribing more cost effective and clinically appropriate. This opened up new strategic and operational opportunities for many pharmacists (Silcock et al, 2004). This was the start of primary care pharmacy, as individual pharmacists (either employed by

GP practices, the HAs or self employed) started to help GPs switch to generic prescribing, manage repeat prescribing and implement evidence-based practice within the GP practice.

During the 1990s there were several reports published, which again made recommendations about further developing the role of the community pharmacist. In 1992, the pharmacy profession discussed formal development of community pharmacy contractors with the DoH via a joint working party (Joint Working Party, 1992). This resulted in a long list of agreed recommendations and new roles for community pharmacists. However, implementation was once again poor, primarily because the legislation and contractual changes were never brought forward (Silcock et al, 2004).

In 1995, the RPSGB began a consultation exercise 'Pharmacy in a new age' (PIANA). They aimed to gather evidence of good practice and stimulate pharmacy development to help develop a strategy for pharmacy in the 21st century (Royal Pharmaceutical Society of Great Britain, 1996 & 1997a). The results were formally passed over to individual pharmacists in 1998 that had expressed an interest to engage in service development (Royal Pharmaceutical Society of Great Britain, 1998). There have been some service development achievements by the creation of local Pharmacy Development Groups (PDGs), for example, the provision of the emergency hormonal contraception services. These groups of pharmacists (made up of a cross-section of pharmacists) worked with Local Pharmaceutical Committees (LPCs) to develop new services and respond to policy initiatives. However, once again PDGs do not exist in all areas and some have been more successful than others in funding and implementing new services (Silcock et al, 2004).

2.8 Health policy under New Labour

In 1997, the Labour government was elected into office ending 18 years of a Conservative government, which led to another period of reforms and reorganisation of the NHS. Over the next three years, the Government published a series of proposals regarding modernising the NHS (Department of Health, 1997, 2000a). The overall aim was to improve health and tackle health inequality in England (Department of Health, 1997). In July 2000 'The NHS Plan: a plan for investment, a plan for reform' was published (Department of Health, 2000a). This described a programme of reforms and consisted of 10 core principles and aimed to reshape care around the patient, improve quality and make better use of the skills and dedication of the NHS staff.

In July 1999 the Government published their white paper 'Saving Lives: Our Healthier Nation' (Department of Health, 1999a). It placed greater emphasis on the social, economic and environmental causes of illness and formally acknowledged the importance of inequalities in health (Ham, 2004). It was designed as a wide public health strategy for England, proposing a national contract for better health in which Government, local communities and individuals would work in partnership to improve health. It proposed four priority areas: cancer, heart disease (& stroke), mental health and older people.

2.9 Pharmacy in the Future

'Pharmacy in the Future-Implementing the NHS Plan' was published in September 2000 (Department of Health, 2000b). It gave a detailed review

of how pharmacy would fit into the NHS Plan. The fundamental change that affected community pharmacists was the change in responsibilities from HAs to Primary Care Groups initially and then Primary Care Trusts (PCTs).

PCTs would now have to take the lead on the development of all primary care services, assessing need, planning and commissioning all health services. As a consequence, pharmacists would need to support improved prescribing, help people get the best use out of their medicines and develop methods to reduce medicine waste. By 2004, this document stated that every PCT across the country should have schemes in place so that people could get more help from pharmacists in using their medicines effectively (Department of Health, 2000b).

Implementing 'Pharmacy in the Future' included introducing schemes such as:

- Repeat dispensing arrangements
- Pharmacist prescribing arrangements
- One stop primary care centers
- Provision of emergency contraception
- Local pharmacy services
- Smoking cessation
- Medicines management & concordance

In July 2003, the Government published a new pharmacy strategy for England. "A vision for pharmacy in the new NHS" was designed as a follow-up document from "Pharmacy in the Future". The document focused on community pharmacy and was essentially a progress report, stating what had been achieved and a summary of previous announcements. The paper however provided a vision of the ten key roles for pharmacy, which were

intended to underpin the future direction of pharmacy (Department of Health, 2003a). These included:

- To provide convenient access to prescriptions and other medicines
- To advise patients and other health professionals on the safe and effective use of medicines
- To be a point of first contact with health care services for people in the community
- To provide medicines management services, especially for people with enduring illness
- To promote patient safety by preventing, detecting and reporting adverse drug reactions and medication errors
- To contribute to seamless and safe medicines management throughout the patient's journey
- To support patients as partners in medicines taking
- To prescribe medicines and to monitor clinical outcomes
- To be a public health resource and provide health promotion, improvement and harm reduction services
- To promote value for money in the use of medicines to reduce wastage

One area that appeared to have moved up the Government's agenda for pharmacy was pharmacists' role in public health. It suggested that pharmacists were well placed to improve public health and the wider promotion of health (Bellingham, 2003). In 2005, the Government published a pharmaceutical public health strategy 'Choosing health through pharmacy' (Department of Health, 2005a). The guidance identified public health targets that pharmacists could have an impact in, such as smoking, obesity and sexual health, and described how pharmacists could become health champions over the next ten years. For example, the Government

has pledged to reduce smoking rates, the programme stated that in addition to pharmacists providing opportunistic advice, pharmacists should actively participate in local and national stop-smoking campaigns and become one of the main providers of specialist NHS stop-smoking services (Department of Health, 2005a).

2.10 Medicines management initiatives within the UK

In response to 'Pharmacy in the Future – implementing the NHS Plan' (Department of Health, 2000b) and 'A Vision for Pharmacy in the new NHS' (Department of Health, 2003a) there have been numerous medicines management initiatives piloted throughout the UK. These schemes aimed to extend the role of the community pharmacist by allowing the community pharmacist to provide clinical medicines management services, such as the assessing, monitoring and review of prescriptions, patient medication reviews and improving repeat dispensing (National Prescribing Centre, 2002). Medicines management services potentially enable patients to have a greater involvement in their medication, for example through the discussion of medication taking and help them get the most from their medicines. An overview of these schemes follows.

There were three main medicines management initiatives in England, supported by the DoH. These were the PSNC project (this project will be discussed in more detail in Chapter 3), the Medicines Management Services Collaborative Programme, co-ordinated by the National Prescribing Centre (NPC) in Liverpool, and the Task Force on Medicines Partnership.

The National Medicines Management Services Collaborative Programme was launched in July 2001. It had an initial £1.9 million to support up to 25

pilot sites based in PCTs and their GP practices (Department of Health, 2001). Between 2001 and 2004 it has had four waves of activities, inviting pilot sites on to the programme each time. Each pilot site recruited local facilitators to work closely with local GPs, pharmacists and primary healthcare teams. The participating sites set their own objectives relevant to local circumstances. The aims of this programme were to identify existing good practice and facilitate change over a two-year period.

Key themes from the first wave of pilot sites included prescription review, medication monitoring, improvement of GP computer and repeat prescribing systems, better prescription collection and delivery services, and development of concordance between patients and health care professionals (National Prescribing Centre, 2002). The programme diversified further and in December 2003 hospitals were also invited to join in a pilot wave of the Hospital Medicines Management Collaborative (Bellingham, 2004a).

The Task force on Medicines Partnership was a two-year initiative, which formed the next phase of the work begun by the Concordance Co-ordinating Group. It was based at the RPSGB and included representatives from health professions, patient groups and the pharmaceutical industry. The aim was to encourage concordance between health care professions and patients, to share models of good practice and to develop a strategy for integrating medicines partnerships into the NHS (Royal Pharmaceutical Society of Great Britain, 1997b).

A further initiative in England was Barking's Medicine Management Project for the Elderly. This was launched in February 2002 and like the PSNC project was based in community pharmacy. It aimed to investigate the

impact of community pharmacists reviewing patients over 65 years on four or more medicines. Particular targets were cardiovascular disease (CVD), diabetes and asthma. The project is still ongoing but the evaluation will look at drug related problems before and after pharmacists' interventions, expenditure in certain therapeutic areas, and interactions between pharmacists and GPs, along with patients' views. The collaborative team evaluating the project includes researchers from Robert Gordon University, the University of London and the academic pharmacy practice unit at Barts and the London NHS Trust (Anon., 2002a; Morrow, 2002).

2.10.1 Medicines management initiatives in Northern Ireland

In Northern Ireland pharmacists were paid for reviewing medication under a new elective contract operating in health and services board areas (Morrison et al, 2001). This was the first UK scheme to have gone beyond the pilot stage into general availability. The service 'Managing Your Medicines' first targeted CHD patients but as the scheme widened it included other medical conditions such as diabetes. The main aims of this pharmacy-based medication review service were to educate patients about their medication, ensure medicines were used appropriately and to promote communication between all members of the primary healthcare team. Patients were recruited for the service either by the pharmacist or via referral from the patient's GP. The review involved compilation of a medication list (which was completed pre-medication review), followed by a medication review in the pharmacy or at the patient's home. It was a requirement that participating pharmacists attended training evenings and completed a distance learning course.

A second scheme in Northern Ireland was an integrated medicines management programme that involved both the hospital and community sector. The project was set up in September 2001 and aimed to implement standardisation of products between the hospital–community interface. It also aimed to improve communication between the GP, hospital and community pharmacist regarding medication on a patient’s admission and discharge to and from hospital (Anon., 2002b).

2.10.2 Medicines management initiatives in Scotland

In 1999, the Scottish Health Department allocated half a million pounds to be spent on pilot projects on pharmaceutical care in the community. These projects focused on three main areas: the elderly, palliative care and mental illness, with payments made to pharmacists providing these services (Anon., 1999a). One such example was the Dumfries and Galloway Primary Care NHS Trust Frail Elderly project, which investigated compliance in the frail elderly. The setting up of a team of pharmacist facilitators located across Scotland in October 2001 enabled these pilot schemes and others to be rolled out throughout Scotland.

A second scheme was a minor ailment service. This was a pilot scheme run in 176 community pharmacies which demonstrated how community pharmacists could effectively supply medication to non-fee paying patients who would otherwise have visited their GP or not sought help at all (Bellingham, 2004b).

2.10.3 Medicine management initiatives in Wales

In Wales, a pharmacist has been appointed to lead the Welsh Medicines Management Collaborative. The programme was launched in June 2004 and is expected to run for 20 months (Royal Pharmaceutical Society of Great Britain, 2004). An expert advisory group consisting of patients and professionals (including pharmacists) identified as having experience/interest in medicines management has been established to provide advice throughout the programme. The overall aims of the programme are to:

- Identify and address unmet pharmaceutical needs
- Help patients make better use of their medicines
- Develop innovative approaches to medicines management
- Provide convenient access to a range of medicines management services through multidisciplinary working, building on the strengths of pharmacists

Fifteen Local Health Board sites (each has developed a project team) have begun working on this initiative. The Local Health Boards funds and supports local medicines management schemes. These can be short-term projects or incentives aimed at local issues or a service development to improve health in their area.

2.11 Other health policy developments affecting the pharmacy profession

In response to 'Pharmacy in the Future – implementing the NHS Plan' (Department of Health, 2000b) and 'A Vision for Pharmacy in the new NHS' (Department of Health, 2003a) there have been other health policy

developments that potentially affect community pharmacists' roles. Developments to pharmacists' prescribing rights and changes to their contractual framework, could allow community pharmacists to have greater flexibility and a larger role in the management of patients within the primary care setting. Each of these health policy developments will be discussed in turn.

2.11.1 The Crown Reports

In 1998, the first of two reports on 'The Review of Prescribing, Supply and Administration of Medicines' was published (Department of Health, 1998). The Crown report stated that pharmacists should be part of the multidisciplinary team reviewing group protocols for the administration of medicines. Following the recommendations in the final report of 'The Review of Prescribing, Supply and Administration of Medicines' (Department of Health, 1999b), pharmacists were granted the opportunity to become supplementary (or dependent) prescribers. This opportunity became a reality with the passing of the Health and Social Care Act in May 2001.

Supplementary prescribing was introduced in April 2003 and was available for allied health professionals. It was a voluntary prescribing partnership between the independent prescriber (physician) and supplementary prescriber, to implement a patient specific Clinical Management Plan (CMP), with the patient's agreement (NHS Modernisation Agency, 2005). Following finalisation of the CMP, the supplementary prescriber could prescribe medication for the patient that had been referred to in the CMP, until the next review by the independent prescriber.

In November 2005, the DoH announced (after consultation) that they would extend pharmacists and nurses prescribing rights, to enable them to become independent prescribers (Department of Health, 2005b). From Spring 2006, suitably trained pharmacists and nurses will be able to prescribe any licensed drug, with the exception of controlled drugs.

2.11.2 Contractual frameworks for community pharmacists and GPs

In the last few years, both the contractual frameworks for community pharmacists and GPs have undergone major reviews in order to provide greater flexibility, in terms of developing and funding services provided to PCTS.

In 2003, negotiations took place on the new contractual framework for community pharmacists. The guidelines were drawn up by the NHS confederation, the DoH and PSNC, in response to the Government's 'Pharmacy in the Future' document that stated the existing national contractual framework for community pharmacy would be modernised to establish minimum standards and to promote and reward high quality services (Department of Health, 2000b).

The contract established a new structure for pharmacy services, which incorporated three levels of service (essential, advanced and enhanced). The overall aim of the new contract was to enable community pharmacists to be rewarded for their professional services, rather than the number of NHS prescriptions dispensed. The new contract for community pharmacists took effect from 1 April 2005 (Pharmaceutical Services Negotiating Committee, 2004).

Essential services had to be provided by all pharmacies before they could start other services. Essential services included dispensing, repeat dispensing (which included maintaining the records of each patient and ensuring that there was no reason for them to be referred back to their GP), promotion of healthy lifestyles, compliance support for people with disabilities, and clinical governance. In addition, the minimum hours of opening of a community pharmacy was increased from 30 to 40 hours a week.

Advanced services, could be provided by all community pharmacists once they had met the accreditation requirements i.e. undergone the required training and had a consultation area in the pharmacy. The proposed advanced services include medicines use review and prescription intervention.

Community pharmacists could provide enhanced services if the PCT decided to commission them, the decision being based on identifying the needs of the population. Such services could include smoking cessation services, care home support and supervised administration of prescribed medication (Pharmaceutical Services Negotiating Committee, 2004).

In 2004, a new general medical services (GMS) contract was also implemented (Department of Health, 2003b). This contract provided new mechanisms to allow GP practices greater flexibility to determine the range of services they wished to provide, including opting out of additional services and out-of-hours care. The new contract also enabled PCTs to commission local services to meet local needs.

Both these contractual changes mean that community pharmacists could potentially be commissioned by PCTs to play a greater part in providing essential services to the local population. For example, to provide medicines management services to people with chronic diseases.

2.12 Summary

Health policy over the last thirty years has largely been shaped by the state of the economy and Government decisions on priorities about spending programmes. Health policy reforms under the Conservative government aimed to make the NHS more businesslike and efficient. The NHS under New Labour, acknowledged the importance of inequality on health, and policy changes have seen the shift of focus of care onto the patient, with the emergence of guidelines of care. These aimed to ensure best care for patients were implemented wherever they resided in the UK.

The community pharmacist's role has been slow to develop, despite several reports (during both the Conservative and New Labour government), which recognised the greater role they could have within in the primary healthcare team. It is unclear why few of these reports were implemented, but lack of contractual changes may have been a factor (Silcock et al, 2004).

With the new contractual changes, potential changes to pharmacy supervision, Government reforms and with new prescribing opportunities, it is arguable that community pharmacists are now in a much stronger position to extend their role. However, despite attempts at reprofessionalisation there is an ongoing debate whether pharmacy is a

'profession' due to the potential deskilling brought about by processes such as increased medical technology.

2.13 Is pharmacy a profession?

The pharmacist's traditional role of compounding and formulating medicines, involved an understanding of and control of an exclusive field of knowledge surrounding the chemistry, pharmacology and formulation of drugs. This led pharmacy to enjoy a status comparable with occupations such as medicine, as they had access to and control of an unique body of specialist knowledge, one of the factors which is thought to determine the social standing of professions such as medicine (Edmunds and Calnan, 2001).

Harding and Taylor (2002) state, the functions and evolution of a profession, together with its relationships with the state and public, are key elements in any strategy to secure a privileged (and well remunerated) social position for its members. Technological advances have diminished the pharmacist's traditional activities in the compounding and dispensing of medicines, and sociologists state that this challenges their claim to a professional status due to an associated decline in their social and economic status (Harding and Taylor, 1997). Furthermore, an occupation's claim to professionalism is partly dependent on the power relationship between the occupation's members and those served by them to create social distance or 'mystification'. The increasing dependence on technology has caused the 'mystique' the public has traditionally associated with pharmacists to largely disappear, with the practical aspects of dispensing being viewed as technical activities largely carried out by pharmacy technicians rather than by pharmacists (Taylor et al, 2003).

There have been a number of theoretical approaches used in the sociology of professions. One well-known approach was the functionalist approach, which began with Talcott Parsons. His approach viewed the professions as fulfilling useful and necessary social functions. According to Parsons, professionals exercised their important social function through “mechanisms of social control”, by applying scientific and rational knowledge to particular cases. Professionals ensured and maintained progress in society by deploying certain features that made their actions distinctive from those of non professionals (Parsons, 1954). Other writers in this tradition have emphasised the professions’ functional traits, such as altruism and the obligation of service. These writers adapted what is known as the ‘trait approach’, listing the characteristics in which a profession should have, for example a code of ethics regulating that profession.

Another major theoretical approach that has dominated sociological work on the professions has looked at power. Sociologists focused on how professions, in particular medicine, instead of holding society together with their invaluable activities, were exerting their powers to preserve their privileged place in society (Harding and Taylor, 2002). The three key concepts in this approach was power over the social object, social stratification and monopoly. These concepts, according to the power approach were what a profession should strive for. A major focus of this approach was the relation, in terms of relative power to other healthcare professionals. Not being subordinate to another profession was considered crucial for professionals to succeed.

Within sociological writing on pharmacy, many attempts have been made to define the practice of pharmacy as either a profession or non-profession.

The two main areas of critique are that as a profession, pharmacy is torn between a professional approach and a business approach (Denzin and Mettlin, 1968). The second area centres on the fact that the power of the working environment is not contained solely within the profession, but is to a large extent in the hands of the medical profession.

Knapp and Knapp (1968) addressed pharmacy practice at both the macro and micro level in the community pharmacy setting. Their conclusion was that pharmacy had not been able to clearly define and accept its professional function and role. Drug control was in the hands of the medical profession and pharmacies were torn between commercialism and professionalism. Pharmacy had the potential to become a health profession, but had failed to become one.

Denzin and Mettlin (1968), argued that pharmacy had become an 'incomplete' or 'quasi- profession', over-trained for what they did and under utilised in relation to what they knew. They argued pharmacy had taken on some of the characteristics necessary to be a profession but was still incomplete. Pharmacists had failed to gain control over their social object, the drug. In the retail setting of pharmacy, pharmacists viewed the drug as a product to be sold instead of an object at which to direct services. Their paper argued that pharmacy lacked control over the social object of its practice (the medicine) and that pharmacists were guided by commercial interests, at odds with the supposedly altruistic, service orientation of professions.

In 1995, Dingwall and Wilson criticised Denzin and Mettlin over their analysis of the incomplete pharmacy profession. They argued the reason Denzin and Mettlin concluded that the pharmacy profession was incomplete

was because they had analysed the pharmacy profession from standards of the medical profession instead of defining it on its own terms. Dingwall and Wilson (1995) acknowledged that pharmacists were technically oriented, but they argued the pharmacist had a distinctive role in the symbolic transformation of drugs from natural into social objects. They argued Denzin and Metlin had failed to acknowledge the drug as a basis for social action. They further argued that commercialism might not be the real problem, concluding that a new approach should be taken in the sociology of professions that identified the true values of the pharmacy profession.

Harding and Taylor (1997) addressed the new roles of community pharmacists in the UK. In line with Dingwall and Wilson, they argued that pharmacy has the necessary knowledge base to control the symbolic transformation of drugs (the pharmacological entity), into medicines (the social object). They believed that by pharmacists trying to redefine their role and promote themselves as providers of a broader range of services, they served to deprofessionalise the pharmacy profession further. They argued pharmacists had failed to capitalise on their unique social function in supplying drugs. This social function had not been fully realised but was central to pharmacists successfully attempting to define their professional role, and preserving their claim to a privileged occupational status.

Gosselin and Robbins (1999) made a recent analysis of the pharmacy profession. They detailed the evolution of the pharmacist from compounder-dispenser to advisor-counselor, and described the dilemma for the pharmacy profession. They believed pharmacists were torn between being business people and professional practitioners. They identified the primary role of the pharmacist today as dispensers and concluded that the

criterion for pharmacy professionalism lay in its consultative role to patients concerning drugs and rationalising drug use.

2.14 Summary

It is generally agreed that the current role of the community pharmacist has changed in recent years due to the advent of large scale manufacturing of medical products, increased medical technology and increased consumerism. These changes have diminished many of the traditional functions associated with pharmacists, for example compounding and formulating medicines. Sociologists state that this challenges their claim to a professional status due to an associated decline in their social and economic status (Harding and Taylor, 1997).

The professional status of the pharmacist remains a contentious issue. Whilst representatives of the pharmacy profession have tried to redefine the pharmacist's role to promote them as providers of a broader range of services, this process has been less successful in the community setting. I believe until the community pharmacist can re-establish roles where they can be seen to be exerting their expertise, whether or not they are deemed to be a 'true professional' by sociological classifications will be an on-going debate.

Read also...

X 2.15 The changing role of the physician

The final part of this chapter focuses on physicians, looking at the factors that have challenged their autonomy and in turn, how they have responded to other members of the primary health care team attempting to extend

their role. The literature on physicians' responses to both pharmacists and nurses attempting to extend their roles in health care will be discussed. Sociological literature during the 1960s and 1970s emphasised the professional dominance of medicine within the health care division of labour (Friedson, 1970). The concept of power has been central to the sociology of medicine for over 30 years, with Friedson (1970) arguing that there were two inter-related components to medicine's power: autonomy and dominance. Medicine had the ability to control its own work activity (autonomy), but it could also define the limits of the work of other occupational groups (dominance). Elston (1991) further differentiated between medicine's autonomy, stating they had economic autonomy (the right of physicians to determine their remuneration), political autonomy (the right of physicians to make policy decisions as the legitimate experts on health matters), and clinical autonomy (the right of the medical profession to set its own standards and control clinical performance).

Since the 1970s onwards, sociologists have generally agreed that medicine's autonomy and dominance has been challenged, and have evaluated the impact of changes of health service reforms and other challenges to their autonomy such as increased consumerism and other health professionals trying to extend their role. Sociologists argue that two distinct processes pose challenges to medical dominance: deprofessionalisation and proletarianisation (Elston, 1991; Annandale, 1998).

Proponents of the proletarianisation thesis have argued that the medical profession, along with other professional groups, is losing control over their working conditions as a result of the economic requirements of advanced capitalism. Proponents of the deprofessionalisation thesis argue that

medicine is losing its professional status and in particular that this is being challenged by consumerism (Britten, 2001).

It is argued that in British general practice, prescribing is a battleground on which the cause of clinical autonomy is defended, with prescribing being one of the core activities that demarcate the medical profession from other groups (Britten, 2001). Physicians work within increasingly complex organisational structures, and their work is becoming ever more rationalised. In the UK, the introduction of the National Institute for Health and Clinical Excellence (NICE) recommendations, the developments of NICE for the treatment of chronic diseases, the drive to change prescribing behaviour from PCT boards and the deregulation of POM to pharmacy medicines have all helped to reduce the medical profession's autonomy to prescribe.

Deregulation of medicines has had the effect of reducing the range of medicines over which physicians have exclusive control, and may therefore be seen as a reduction of clinical jurisdiction (Britten, 2001). Deregulation of POMs has given the consumer more choice and in doing so, the responsibility of the pharmacist is increased (as OTC medicines are free of medical control), thus allowing pharmacists a greater degree of control over the supply of medicines to consumers. However, a study by Erwin et al (1996) found that the proportion of GPs agreeing to drugs becoming available OTC had increased from an earlier study, which had looked at GPs' views on the deregulation of POM medicines. Although a small scale study, the authors concluded the change in attitude may have reflected greater awareness of the cost of prescriptions to the NHS and the need for cost containment. Other reasons put forward included GPs encouraging self-medication for relatively minor ailments due to increased pressures on

their time, more awareness of the community pharmacist's role within the primary health care team and being more supportive of pharmacists' role extension.

Patient demands are also thought to be challenging the medical professions' exclusive right to prescribe. Drawing on qualitative interviews with GPs, Weiss and Fitzpatrick (1997) have carried out work exploring the deprofessionalisation and proletarian thesis in relation to prescribing. They argued that the greatest threat to GPs' clinical autonomy was from deprofessionalisation through lay challenges to GP prescribing. The advent of the Internet and wide spread information sources, along with Government policies endorsing greater consumerism had caused patients to challenge GPs' prescribing decisions. However, their work was based on the prescriber's perspective rather than on an analysis of consultations or patients' views (Britten, 2001).

By contrast, Britten (2001) took the view that the literature did not suggest that the challenge to clinical autonomy came from articulate, well-informed consumers. She argued that physicians cited patients' inappropriate demands as problematic, although physicians often did not give patients the information about their medicines that they required. She believed when the medical profession was in conflict with the state, patients' needs and expectations may be cited in support of professional claims, while in other professionally defined contexts, patients' demands may be seen as a threat to clinical autonomy. As a form of resistance, non-compliance reflected the patient's autonomy without necessarily reducing the physician's autonomy or power.

Work by Lupton (1997) also showed mixed views about the effect of consumerism on medical autonomy. She attempted to find out what physicians thought of the changing social position and status of the medical profession. The findings from the study suggested physicians were highly aware of, and sensitive to changes that have taken place regarding the public perception of their profession. Most of the interviewed physicians believed that their profession in general was not considered quite as powerful as perhaps they once were, although they did not mind greater consumerism on the part of the patients. Female and younger physicians interviewed were particularly positive about changes they believed had occurred in relation to patient's attitudes to their physicians. However, specialist practitioners (who tended to be older and male) noted that they still found patients willing to be guided by their medical expertise.

A recent survey of more than 2000 trainee physicians and medical students, found that eight out of ten respondents thought medical professionalism to be under threat largely due to external factors (Kmietowicz, 2005). They believed that high public expectations of what medicine could do and too many Government targets were reducing physician' autonomy and could ultimately drive physicians out of the profession.

✘ Whilst sociologists agree medicine's autonomy and dominance is being challenged, they disagree why these changes are occurring and what this means for the medical profession. Both Friedson (1985) and Elston (1991) concluded that despite some erosion of clinical freedom, current challenges to the medical profession could not be described as bringing about either proletarianisation or deprofessionalisation.

2.16 Physicians' response to the extension of the pharmacist's role

The professions of pharmacy and medicine have a long history of competition and rivalry, which have included times of good will and conversely times of friction and antipathy (Cowen, 1992). Whilst the Nuffield Report, Crown Reports and recent Government policies have recommended that pharmacists extend their roles into areas such as supplementary and independent prescribing, medicines management schemes and providing greater support to patients on their medication in general, implementing these health policy recommendations has raised issues about professional status and inter-professional rivalry. As pharmacists have tried to extend their role, physicians have opposed this and exercised a tight control over their task boundaries (Adamcik et al, 1986; Gilbert, 1998a-c, 2001). Edmunds and Calnan (2001) have argued that in recent years pharmacy's 'quasi-status' may also have been linked to its relationship with medicine, as their professional development has been hindered, largely because of medicine's control over their clinical autonomy.

Some time ago, Eaton and Webb (1979) referred to the extended role of community pharmacy as 'boundary encroachment', claiming that it was an attempt to extend the boundaries of pharmacy practice into the territory of the medical profession. They found hospital pharmacists had extended their roles into areas where physicians had previously tended to take short cuts or had neglected entirely. For example, patient counselling, monitoring of drug side effects and the provision of drug information services. However, Eaton and Webb (1979) maintained that the activities of clinical pharmacists were not viewed as encroachment by the medical

profession because physicians had either willingly delegated or relinquished control over certain tasks. Therefore, the medical profession had officially controlled encroachment and as a consequence pharmacists had gained some increase in clinical tasks rather than status. Ritchey and Sommers (1990) also claimed like Eaton and Webb that clinical pharmacy involved a few new tasks and these had been delegated by physicians. However, Mesler (1991) stated that the bipolar perceptions of pharmacy's clinical role (e.g. had they encroached clinical tasks or had they been delegated clinical tasks) did not do justice to the interactive processes of role expansion and boundary construction, as it was a dynamic process. He concluded that often clinical pharmacist's expertise was unsolicited and provided autonomously, but it was provided discretely or in such a manner that nurses and physicians were left 'in charge'. A further conclusion was many nurses and physicians had become aware of the need for such assistance from pharmacy and were therefore relinquishing some tasks. This demonstrated a slow process of encroachment and delegation taking place simultaneously.

Studies have shown that physicians often see the extension of pharmacists' roles as boundary encroachment (Adamcik et al, 1986; Gilbert, 1997, 1998a-c, 2001; Edmunds and Calnan, 2001). In 1997, the DoH sponsored a series of projects aimed at testing some form of extended roles for community pharmacists in the UK. Edmunds and Calnan (2001) reviewed these trials to ascertain the views of both community pharmacists and GPs towards these initiatives. Their study concluded that community pharmacists saw their new role as a means of survival and not as a chance to take power away from GPs, although GPs saw these initiatives in a different light. Many GPs were willing to accommodate some changes but saw some activities as a threat to their autonomy and control. They did not

approve of representative bodies on committees such as the Local Medical Committee, but were happy for pharmacists to have a larger role in areas such as repeat prescribing, where there were limitations and exclusion criteria for the community pharmacist. There was also some evidence that community pharmacists themselves (as well as GPs) were perhaps preventing community pharmacists from achieving professional status by attributing ultimate authority to GPs.

Adamcik et al (1986), hypothesised (and the hypotheses was supported) that physicians would be more antagonistic towards an expansion of pharmacists' clinical activities in the community setting rather than in the hospital setting. They believed pharmacists working in a community setting typically exercised far more autonomy (both professional and administrative) and had freedom from direct supervision compared to hospital pharmacists. In hospitals, the activities performed by a clinical pharmacist were highly visible and could be more readily scrutinised, monitored or controlled by other health professionals.

Literature that has investigated GPs' views on the extension of the community pharmacist's role into more clinical domains (Ritchey and Raney, 1981; Spencer and Edwards, 1992; Ellis et al, 1992; Bleiker and Lewis, 1998; Ewen and Triska, 2001; Howard et al, 2003; Hughes and McCann, 2003), shows that GPs identify roles which they believe are appropriate for community pharmacists to undertake.

Ritchey and Raney (1981) looked at the factors associated with physicians' acceptance of pharmacy services. They found that physicians were least supportive of tasks that allowed the pharmacist to make independent technical-therapy decisions, such as deciding the choice of drug for a

patient, and were most favourable towards the pharmacists undertaking tasks with less autonomy, such as maintaining patient drug profiles. These findings have been mirrored in subsequent studies. For example, in Spencer and Edwards (1992) study, GPs deemed roles such as reporting adverse drug reactions, managing minor illness, and advising GPs about cost effective prescribing as appropriate roles. Inappropriate roles included, screening for high blood pressure (BP) and cholesterol levels. A third of GPs in their study believed that pharmacists should only dispense medication, although there was high agreement that communication between pharmacists and GPs was good and that pharmacists were ideally placed to provide health education.

Ellis et al (1992) also aimed to assess opinions held by GPs on the role of the pharmacist, how involved they thought pharmacists should be in treating patients with common medical problems and whether they felt that pharmacists were becoming involved in tasks they were not qualified to undertake. Whilst most respondents (97%) reported a good or very good working relationship with their local pharmacists and 75% cited a desire for greater cooperation between the two professions, GPs once again identified appropriate roles that they would be happy for the pharmacist to undertake. Appropriate activities included, preparation and dispensing of medicines, providing advice about OTC and prescribed medication and counselling patients about adverse reactions to OTC medications. Inappropriate activities included, pharmacy screening programmes of blood pressure, cholesterol, glucose and haemoglobin, with 37% of GPs indicating that pharmacists were expanding their role inappropriately.

Ewen and Triska's (2001) study indicated that pharmacists' ability to expand their role depended largely on GPs' attitudes. GPs supported limited

expansion of the pharmacist's role but only if it did not threaten their scope of practice. There was strong agreement on more traditional services such as dispensing medication, providing medical information, counselling, verifying the patient's understanding of information and evaluating patient satisfaction. GPs did not support more non-traditional pharmacy services, were divided on life-style counselling and were less supportive about pharmacists being involved in multidisciplinary meetings. Over half the GPs did not believe that pharmacists had the required knowledge and skills to provide pharmaceutical care.

Howard et al (2003) aimed to ascertain the views of specially trained expanded role pharmacists (ERPs) and GPs involved in a programme, in which they worked together to optimise drug therapy for elderly patients. ERPs and GPs differed in their perceptions of appropriate roles for ERPs. Whilst ERPs saw the programme as an opportunity to take on new professional roles, GPs stated they did not want ERPs to directly counsel their patients about their medication. GPs stated they appreciated the information they received from ERPs about their patients' adherence and use of OTC medications, and they did not see a problem with ERPs advising patients about OTC products. Both ERPs and GPs identified the need to work out professional role relationships before undertaking collaboration more fully.

These studies demonstrated that although GPs generally favoured community pharmacists extending their roles (and often welcomed a greater degree of collaboration with them), they all identified roles which they believed were appropriate for community pharmacists to become more involved with. It can be concluded that there was a general trend

that GPs were least supportive of tasks that allowed the pharmacist the opportunity to make independent decisions regarding treatment.

Physicians defending their prescribing rights have also been demonstrated at a national level. Following the publishing of the second Crown report (this suggested that pharmacists be allowed legal authority to become supplementary prescribers), the British Medical Association (BMA) expressed caution and stated that it would prefer community pharmacists to do what they always have done, counter prescribe (Anon, 1999b). This was illustrated by the following quote:

" We would prefer to see high street pharmacists becoming independent prescribers taking full responsibility for their decisions in prescribing general sale list and pharmacy medicines where they have the skills".

The announcement by the DoH to extend pharmacists' and nurses' prescribing rights so they could become independent prescribers was again met with dismay by the BMA. Their concerns centered around non-medical prescribers' ability to diagnose, as illustrated by the following quote (Day, 2005).

"While we support the ability of suitably trained nurses and pharmacists to prescribe from a limited range of medicines for specific conditions, we believe only doctors have the necessary diagnostic and prescribing training that justifies access to the full range of medicines for all conditions".

This is not an issue that has just occurred within the UK. For example, Gilbert (1998a-c) has described the South African situation where community pharmacists have tried to expand their role, taking into account

aspects of professional dominance and boundary encroachment. The papers demonstrated that pharmacists could have an extended role. However, it also showed that the medical profession was strongly opposed to the pharmacist's role extension, particularly when it related to a pharmacist's ability to prescribe. Pharmacists were often only permitted to extend their role when the medical profession did not see a task as its exclusive domain. For example, physicians were unhappy for pharmacists to undertake a prescribing function, as they believed this was a sole function for their profession to undertake. The developments made showed a partial success for the community pharmacist to extend their role. Special permits were granted to a selection of pharmacists, although these were restricted to pharmacists based in rural or under-served areas.

It is interesting to note that boundary encroachment may also be occurring to community pharmacists by physicians threatening the dispensing function of community pharmacists. In Spencer and Edwards (1992) study, fifty per cent of GPs thought they should be able to dispense medication. Likewise, Gilbert (2001) has described the situation in South Africa where most community pharmacists see the 'dispensing doctor' as the primary problem facing their profession, due to the large and increasing numbers of physicians who dispense medication as part of their practice. Physicians have successfully managed to protect their role from encroachment but have managed to encroach on pharmacy's main function (Gilbert, 2001). In South Africa, pharmacy's lack of success to extend its role has resulted in additional attempts to broaden the scope of the services offered within the community pharmacy. One such successful scheme was the formation of a 'therapeutic alliance' with the nurse (Gilbert, 1997). The partnership developed between these two professions allowed the pharmacists to expand their professional activities without invading the nurse's

professional domain but the alliance between these two professions presented an 'united front' against the medical profession. However, Adamcik et al (1986) found that nurses would not support pharmacists undertaking clinical activities, if these activities threatened their role.

2.17 Effects of collaboration on relationships between physicians and pharmacists

The literature is conflicting about how improving the relationship or contact between physicians and pharmacists positively affects the attitude of physicians towards pharmacists undertaking extended roles. Muijrs et al (2003) concluded that improving the relationship between GPs and pharmacists would have a significant, positive effect on the attitude of GPs towards the pharmacist's care-providing function. Adamcik et al (1986), found that physicians who had worked with a clinical pharmacist were significantly more likely to support clinical role activities in the community but not in the hospital setting. However, overall levels of support for pharmacists to extend their role remained negative.

Chen (2001a) argued that when there was an established relationship between a GP and a community pharmacist, the relationship might extend to being a social relationship, particularly in small communities. Whilst community pharmacists acknowledged that contacting GPs was easier when they knew the GP, they were often reluctant to try and extend their role due to the fear that it may antagonise their relationship and impact on their relationship outside of work. In these instances, pharmacists valued their social relationship more than their professional relationship and preferred to remain in a traditional role.

Hughes and McGann (2003) concluded that GPs who had previous contact with pharmacists through interdisciplinary projects did not have a more positive view of community pharmacists. They argued that contact with pharmacists in prescribing support roles may have just reinforced the GPs' perceived view of the community pharmacist, for example that of a 'shopkeeper', and they continued to be resistant against community pharmacists undertaking roles such as prescribing.

Studies also indicate that poor communication between pharmacists and physicians could have a negative effect on how physicians perceived collaborative schemes with pharmacists (Wilson et al, 2002; MacRae et al, 2003; Brook & Doucette, 2004). For example, MacRae et al (2003) reported that limited GP-pharmacist contact was deemed to be a problem by GPs in their study, which looked at the views of GPs to a pharmacist-led medication review (PLMR) service.

Wilson et al (2002) also stated that poor communication was reported between the community pharmacists and GPs in their community pharmacy repeat dispensing project. At the beginning of their project there were positive relationships between the pharmacists and GPs. However, GPs reported that they had high expectations of what could be achieved but overall were disappointed that there was not more communication with the pharmacists. Likewise, community pharmacists confirmed that communications with the medical practices had not improved noticeably during the study, although the study did not provide explanations regarding this issue.

Brook & Doucette (2004) concluded developing an effective system for bi-directional communication facilitated the development of a collaborative

working relationship. Face-to-face communication was often important to develop open channels of communication between the physician and pharmacist.

2.18 Physicians' response to the extension of the nursing role

In order to shed more light on how the medical profession has responded to other healthcare professional taking on new roles, that literature exploring the nursing profession extending their role has been explored in the final part of this chapter.

Nurse and physician conflict has gone on for centuries, with the nurse-physician game well documented in the literature (Stein 1967). In the formative years it was a mainly a one-sided relationship, where nurses played a largely subservient and supportive role to the physician. These conflicts were based to a large extent on factors such as the education of the physician and nurse, differences in status and prestige, gender imbalance, and social class differences (Kappeli, 1995; Blickensderfer, 1996). The two professions had distinct professional identities. The nurse's professional identity was framed in terms of communication and compassion, responsible for managing the healing process of a patient. They were taught to have a more holistic view of the patient, which set different goals for patient care than the physician. Conversely, physicians were taught to be decisive, independent problem solvers who diagnosed and prescribed (Blickensderfer, 1996).

British nursing has undergone radical reform in the past decade, with nursing education shifting from a task centred approach towards personalised care (Salvage, 1995). For years, dependent on physicians for

their education and training, nurses had been in a long struggle to establish epistemological demarcation from medicine. In the UK, 'Project 2000' resulted in changes to the nursing curriculum that freed it from the dominance of the medical model. 'Project 2000' also saw nursing move into higher education (Allen, 2001).

Government reforms have allowed nursing to have a role in prescribing medication. Likewise, the need for general practice to respond to Government policy (which called for increased efficiency and accountability) has also led to nurses having a larger role within the primary care team. As the role of the nurse began to expand, the boundaries between medical care and what was deemed nursing care become less obvious (Blickensderfer, 1996). It is argued that the delegation of responsibilities has challenged the professional identities of GPs and nurses (Charles-Jones et al, 2003).

A number of studies have looked at the effect of redistributing medical work to nurses (Bond et al, 1987; Svensson, 1996; Allen, 1997; Willis et al, 2000; Snelgrove and Hughes, 2000; Blue and Fitzgerald, 2002; Charles-Jones et al, 2003). The majority of these studies suggested the nursing-physician relationship had not significantly changed, and physicians still remained the more dominant position within the healthcare system.

Svensson (1996) argued that the traditional models of medical dominance were deterministic and provided an inappropriate basis for understanding the physician-nurse relationship on contemporary hospital wards. He suggested that the 'negotiated order perspective' as the most appropriate theoretical framework for understanding patterns of physician-nurse

interaction, changes within the health care system had created 'negotiation space' for nurses, which had led to an evolution of new working relationships with physicians.

He attributed this shift in the physician-nurse relationship to three key changes in the negotiation context, which had given nurses 'space' for directly influencing patient care decisions and interpreting organisational rules. Firstly, the increased prevalence of chronic illness had resulted in a shift of emphasis from preventing death to handling life, introducing a social dimension into health care. Nurses were powerfully placed to contribute to this patient management. Secondly, that the shift from a system of task allocation to team nursing had facilitated a closer nurse-patient relationship because the nurse was responsible for fewer patients. Likewise, the nurse's knowledge of the patient was no longer exchanged via the ward sister, but presented directly to the physician. Thirdly, that the introduction on many wards of the 'sitting round', where the physician and nurse discussed their patients before the traditional 'ward round' offered nurses an opportunity to converse with the doctor and influence patient management decisions in a more informal setting.

A criticism of Svensson's work (and one in which he conceded) is that whilst he was concerned with patterns of interaction between nurses and physicians, he argued this theory by drawing on interview data undertaken with nurses only, thus we are given only a partial view.

Allen (1997) aimed to further the debate on the 'negotiated order perspective' and increase the sociological understanding of physician-nurse relationships, by examining the ways in which nurses' accomplished occupational jurisdiction in the course of their every day work. She aimed

to analyse features of nursing and medical work that inhibited inter-occupational negotiations but nevertheless led to the blurring of the nursing-medical division of labour.

Data was generated on a surgical and a medical ward in a UK, District General Hospital. She observed and participated on wards for ten months, collecting data via observation, semi focused interviews and spontaneous extended conversations, carried out with ward nurses, physicians, clinical managers, health care assistants and auxiliaries.

The main areas where nurses were extending their skills were in the administration of intravenous (IV) antibiotics, venepuncture, male catheterisation and IV cannulation. Physicians were happy for nurses to take over what they regarded as low status menial activities, e.g. IV antibiotic administration but they were less clear about activities such as diagnostic investigations, which came closer to the focal tasks of medicine. There was an expectation of the need for inter-occupational negotiations and associated boundary tensions between nursing and medical work due to the nurse's role extension and policy developments. These expectations were confirmed by the interview data, which revealed uncertainty and disagreement about the changing division of labour in health care. However, this data were not supported by Allen's ward observations, which revealed little evidence of negotiations or inter-occupational strains on the ward.

In attempting to explain the findings, Allen suggested that the strategies staff developed in order to manage the tensions associated with the social organisation of hospital work, meant that non-negotiated informal boundary-blurring was a taken-for-granted feature of normal nursing

practice. Although there was little face-to-face negotiation of the division of labour between nursing and medicine on the ward, often negotiations had taken place in other areas, such as hospital management meetings.

It also raised some methodological issues relating to the clarity of the concept of negotiation and how 'negotiated orders' could be best studied. The discrepancy between nurses' accounts of their work and their observed daily practice illustrated the dangers that were raised in relation to Svensson's work and the unquestioning reliance on interview data.

Snelgrove and Hughes (2000) investigated the changing nature of physician-nurse relations, and in particular, how far the notion of the physician-nurse game remained relevant to contemporary hospital work. They reported that nurses were generally reluctant to challenge physicians' authority, although some used the notion of patient 'advocacy' to frame and justify their questioning of particular decisions. Whilst physicians valued experience in nurses and saw experienced nurses as the group who might most legitimately move into physicians' territory, they drew a sharp distinction between medical and nursing roles. Medical roles identified again emphasised medicine's desire to control its autonomy in diagnosing and prescribing. The authors concluded that some boundary blurring was occurring and nurses were having greater roles according to the clinical areas in which they were located, but generally that physicians and nurses continued to see their roles in largely traditional terms.

Charles-Jones et al (2003) concluded that as medical work was being transferred to nurses, it began to change the GP's identity to that of a consultant in primary care and it now mirrored the hierarchy found in hospitals. This had come about by delegating patients that had 'minor

ailments' to nurses, so the GP began to just see the more complex patients. This act had allowed GPs to maintain their dominant position within the primary care team.

However, Willis et al (2000) and Blue and Fitzgerald (2002), concluded that the working relationship between GPs and nurses was more constructive than the literature on the physician-nurse game suggested. These studies also showed a clear division of labour, with the GP as the initiator and supervisor, and the nurse being largely dependent on the flow of work from the GP. Blue and Fitzgerald (2002) found that relationships between the GPs and nurses were very co-dependent ones, in which neither rural nurse nor GP could operate successfully without each other. GPs indicated their strong support of nurses, encouraging them to develop their skills and abilities to use them whenever possible because it reduced their workload. Both parties indicated that they were happy with the division of labour and saw no need for a radical change.

2.19 Summary

Due to Government reforms and greater consumerism the traditional roles of physicians, community pharmacists and nurses have all changed. Whilst community pharmacists and nurses have attempted to extend their roles into areas such as prescribing, the medical profession has struggled to defend its autonomy and have exercised a tight control over their task boundaries.

The literature suggests that physicians are willing for community pharmacists and nurses to have an extended role, but identify specific roles which they feel are appropriate for them to undertake. These roles are

usually in areas where there is limited autonomy, allowing the physician to remain in a dominant position. This suggests that pharmacists and nurses have not managed to encroach into traditional physician territory but instead are being delegated tasks that physicians are happy to relinquish.

However, what can be concluded is that the extension of the community pharmacist's role is unlikely to happen fully, or successfully if GPs are unwilling to co-operate with community pharmacists. This is further complicated by the fact that the majority of community pharmacists are not based within the GP practice, meaning relationships may not be established with each other and communication may be poor.

3. THE POTENTIAL ROLE OF THE COMMUNITY PHARMACIST IN MEDICINES MANAGEMENT INITIATIVES

3.1 Introduction

As I discussed in the previous chapter, recent health policy changes have acknowledged the importance of addressing inequalities in health. This has led to the development of care guidelines for different disease states, which have aimed to implement best care for patients wherever they reside in the UK. The National Service Framework for CHD, was published in March 2000 and formed part of this modernisation strategy for the NHS. In line with these changes, the DoH document 'Pharmacy in the Future – Implementing the NHS Plan' set a target date of 2004 for the implementation of medicines management schemes in all primary care organisations (Department of Health, 2000b). Such schemes aimed to improve health outcomes, reduce medication waste and allow patients to get more help regarding their medicines. If community pharmacists could contribute to improved health outcomes in CHD through a MMS, it could provide a cost-effective method of addressing a national priority.

The first part of the chapter provides a brief overview of CHD, looking at why reducing the incidence of CHD is a national health priority. The aims of the NSF will be discussed, with particular focus on standards three and four of the document, and emphasising the role of the primary care team within these two standards. The role of aspirin, statins and beta-blockers in CHD, along with the clinical evidence for their use will be investigated. The

potential role that the community pharmacist could play at assisting in the targets laid down in the NSF for the use of these medications will also be discussed.

The chapter then looks at the concept of pharmaceutical care and medicines management. It explores the literature and reports the findings of randomised controlled trials (RCTS) and controlled clinical trials (CCTs) where pharmacists have had a medicines management role within CHD. Finally, the CPMMP will be discussed. An overview of the CPMMP's aims, objectives and protocol will be given, along with the focus that I have decided to undertake in this thesis.

3.2 Coronary heart disease

Coronary heart disease can be pathologically defined as the narrowing, or the blockage of the coronary arteries by atheroma (fatty-fibrous plaques), leading to angina, coronary thrombosis or heart attack, heart failure and/or sudden death (Department of Health, 2000c). Despite a fall in CHD mortality since the late 1970's, the UK death rate is still amongst the highest in Western Europe. It is the most common cause of death and premature death (death before the age of 75) in the UK, accounting for approximately 117,000 deaths in 2001 (Peterson et al, 2004). Therefore, the reduction in mortality and incidence of CHD is a major public health goal.

Within the UK there is also significant regional, gender, socioeconomic and ethnic differences in CHD mortality. Deaths from CHD are higher in Scotland, Northern Ireland and the North of England than in Wales or the South of England. The highest mortality rates are primarily concentrated in

urban areas. CHD has a higher incidence in males than females; currently it is responsible for 1 in 5 deaths in males and 1 in 6 deaths in women (Peterson et al, 2004). CHD is three times more common amongst unskilled male workers, compared with men in managerial or professional positions, and is twice as common in wives of manual workers compared with the wives of non-manual workers (McGlynn et al, 2000). South Asians living in the UK (Indians, Bangladeshis, Pakistanis and Sri Lankans) have a higher premature death rate from CHD than average (Peterson et al, 2004).

3.3 Risk factors for CHD

The 20th century has seen a rise and decline in the death rate of CHD in most developed countries. Studies such as the international WHO Monitoring Trends and Determinants in Cardiovascular Disease (MONICA) were designed to answer epidemiological questions about this decline. From the early 1980s the 'WHO MONICA' project, monitored the trends in CHD of 37 populations in 21 countries over a ten-year period.

The project concluded that in most developed countries the death rate from CHD was falling, although the rate of decline varied widely. The main factor reducing CHD mortality rates was a decrease in event rates, rather than a reduction in the fatality of these events (Tunstall-Pedoe et al, 1999). What has driven this decline in CHD events is still not fully understood. However, reducing known cardiovascular risk factors is likely to be very important (National Prescribing Centre, 2000).

The major modifiable risk factors for the development of CVD² are generally accepted as smoking, high blood pressure, poor diet, high cholesterol levels, obesity, lack of exercise and excess alcohol intake. Non-modifiable risk factors include family history of premature CHD, advancing age, male gender, ethnicity and diabetes mellitus (McGlynn et al, 2000). The absence of established risk factors does not guarantee freedom from CHD.

3.4 The National Services Framework for coronary heart disease

In March 2000, the NSF for CHD was published (Department of Health, 2000c). The framework aimed to provide uniformity of care and set out plans to ensure that the best care regarding prevention, diagnosis and treatment of CHD was available for everyone in the UK. The NSF consisted of twelve standards of care which covered the whole management spectrum of CHD, including prevention of CHD, medical and surgical interventions of established CHD, and cardiac rehabilitation. Heart failure was also included in the framework.

One of the highest priorities of the NSF was the reduction of CHD in the general population and the prevention of CHD in high-risk patients. Standards three and four of this NSF aimed to address these issues and centred around GPs and primary care teams identifying all people with either established CVD (secondary prevention³), or those who were at

² Cardiovascular disease: heart and circulatory disease, for example CHD plus stroke, peripheral vascular disease and heart failure.

³ Secondary prevention is defined as the prevention of the progression of the disease in symptomatic patients (Stevens and Williams, 2002).

significant risk of developing it (primary prevention⁴) and offering them appropriate advice and treatment to reduce their risks.

To address these aims, CVD registers and risk assessment tools were required to facilitate the identification and assessment of people at high risk⁵. To calculate cardiovascular risk, assessment tools required the following patient data: age, sex, smoking status, diabetic status and blood pressure. Most assessment tools also required cholesterol measurements (serum total cholesterol and high density lipoprotein cholesterol). Risk assessment tools did not need to be applied to individuals with established CVD as these people were deemed to have a very high risk of a further CVD event (>30% CHD risk over 10 years) and therefore required management using appropriate drug treatment.

3.4.1 Primary interventions

The NSF stated the following interventions that patients with diagnosed CHD or other occlusive arterial disease should receive unless contraindicated:

- Advice on stopping smoking
- Information and personal advice about other modifiable risk factors
- Advice and treatment to maintain blood pressure (BP) below 140/85 mmHg
- Low dose aspirin (75mg daily)
- Statins and dietary advice to lower serum cholesterol concentrations EITHER to less than 5.0mmol/L (Low density lipoprotein (LDL)-Cholesterol to below 3mmol) OR by 30% (whichever was greater)

⁴ Primary prevention can be defined as using strategies to reduce the risk of cardiovascular events in people without CHD but who are at high risk of developing it (Williams et al, 2003).

⁵ The NSF defined a high-risk threshold, as a CHD event (not disease) risk greater than 30% over 10 years (Department of Health, 2000c).

- ACE inhibitors for left ventricular dysfunction
- Warfarin or aspirin for people over 60 years for atrial fibrillation
- Meticulous BP and glucose control in diabetics

3.4.2 Secondary interventions

The following interventions were stated in the NSF for patients without diagnosed CHD or other occlusive arterial disease with a CHD event risk greater than 30% over ten years:

- Advice on stopping smoking
- Information and personal advice about other modifiable risk factors
- Advice and treatment to maintain BP below 140/85 mmHg
- Statins and dietary advice to lower serum cholesterol concentrations
EITHER to less than 5.0mmol/L (LDL-Cholesterol to below 3mmol)
OR by 30% (whichever was greater)
- Meticulous BP and glucose control in diabetics

3.5 The use of aspirin, statins and beta-blockers in clinical practice

One of the other immediate NSF priorities was to improve the use of effective medicines after heart attack which included the use of aspirin, statin and beta-blockers. The Government set a target that 80-90% of patients discharged from hospital following a heart attack would receive these medications by April 2002 (Department of Health, 2000c).

Aspirin has been shown to decrease mortality and non-fatal reinfarction and stroke when given as a short-term therapy for acute MI (ISIS-2 Collaborative Group, 1988). Many trials have shown the beneficial effects

of aspirin in secondary prevention of CHD (The Antiplatelet Trialists Collaboration, 1994; Antithrombotic Trialists Collaboration, 2002). Low dose aspirin (75-150mg daily) is an effective antiplatelet regimen for long-term use and unless contra-indicated or not tolerated, aspirin should be given prophylactically to all CHD patients.

The role of aspirin in primary prevention is less clear. A meta-analysis of four RCTs of aspirin for primary prevention (Sanmuganathan et al, 2001), concluded that aspirin treatment for primary prevention was safe and worthwhile if the risk of a CHD event was greater than 15% over 10 years. It was safe but of limited value with a CHD risk of 10% over 10 years. However, it was unsafe when a CHD risk was 5% over 10 years, as the risk of hemorrhagic complications potentially outweighed the benefits of aspirin therapy.

The aim of lipid lowering therapy is to reduce the progression of coronary atherosclerosis and to stabilise and induce regression of existing plaques. Statins have been shown to reduce coronary events and death in both primary (Shepherd et al, 1995; Downs et al, 1998) and secondary prevention trials (Scandinavian Simvastatin Survival Study Group, 1994; LIPID Study Group, 1998; Sacks et al, 1996). These trials demonstrated that statins reduced cholesterol significantly compared to placebo, with LDL-cholesterol being reduced to 20 to 30% of the baseline level. A reduction in cardiovascular mortality and morbidity of about 20-40% was also noted in patients receiving a statin.

Statin treatment should be started or adjusted to achieve target total cholesterol of less than 5mmol/litre or a LDL-cholesterol, below 3mmol/litre (or a 30% decrease, whichever was the greatest) (Department

of Health, 2000b) and was recommended for both primary and secondary prevention of CHD in the NSF.

Beta-blockers have been shown to be effective post myocardial infarction (MI) and in angina. Unless there are contraindications, such as uncontrolled heart failure, beta-blockers should be given as secondary prevention following MI and as first-line therapy for those with angina. There are data available to indicate that the beneficial effects of beta-blockers is maintained for at least six years after infarction with continued oral administration (Olsson et al, 1988). Therefore, it has been suggested that patients who tolerate these drugs, this treatment should continue indefinitely (Goldstein, 1996).

Research has shown that aspirin, statins and beta-blockers are under-utilised or inappropriately used in clinical practice (Viskin et al, 1995; Campbell et al, 1998; White, 1999; McCallum, 1997; Welton et al, 1999; Abbokire et al, 2001; Fonarow, 2002; Smith, 2000). For example, Campbell et al (1998) set out to determine secondary preventive treatment amongst primary care patients with CHD in the Grampian area. They identified 1921 patients with CHD from GP registers, of these 825 (63%) patients took aspirin, and 133 (17%) patients had lipid levels managed according to current guidelines. Of the 414 patients that had a recent MI, only 131 (32%) took beta-blockers. The study concluded half of the patients had at least two aspects of their medical management that were sub optimal in terms of secondary prevention.

Likewise, studies have shown that pharmacists could have a role in identifying patients on sub-optimal therapy. For example, Reilley and Cavanagh (2003) implemented a secondary heart disease prevention clinic that was run by a practice pharmacist and nurse. Analysis of the first 100

patients that had attended the clinic showed that the percentage of patients taking aspirin 75mg had risen from 39% to 92%, compared with the current population. Similarly, the number of angina patients receiving a beta-blocker had increased from 24% to 50%.

McGovern et al (2001) also demonstrated the potential role that community pharmacists could have in the management of angina. Patients who presented to a community pharmacy requiring sublingual glyceryl trinitrate (GTN) were interviewed after consent, about their angina medication and whether they took aspirin. The results of the study indicated that only 73% of patients were receiving low dose aspirin, and only 35% were receiving a beta blocker as part of their medical treatment. In addition, only 69% of patients had satisfactory knowledge of how to use sublingual GTN to relieve an angina attack.

As indicated in these studies, pharmacists could have a potential role in alerting physicians to CHD patients that were either not receiving the appropriate drugs, or those not receiving therapeutic doses. For example, a MMS from community pharmacists could help address these issues of sub therapeutic medication in CHD patients and in doing so assist in the attainment of the national targets laid down in the NSF for CHD.

I now wish to explore the literature on previous medicines management services conducted by pharmacists, to provide an overview of the roles that pharmacists have had in managing patients with CHD. To frame this work, an overview of the concepts 'pharmaceutical care' and 'medicines management' are provided.

3.6 The concept of pharmaceutical care

Over the past three decades the term 'pharmaceutical care' has been increasingly used to describe the greater role pharmacists have taken beyond dispensing medicines. The concept of pharmaceutical care first evolved in the United States of America (USA) as part of the clinical pharmacy movement, with Mikael et al (1975) introducing the concept into pharmacy practice. Pharmaceutical care is a patient centred concept, whereby pharmacists take responsibility for the management and outcomes of the patients' medicines and their associated drug-related needs. For example, it dealt with the way people should receive and use medication, medication surveillance, counselling and outcomes of care. In some countries the concept also covered the way in which people should obtain information about disease states and lifestyle issues (Van Mill et al, 1999).

For the next fifteen years, different definitions of pharmaceutical care were put forward, each addressing the concept in slightly different ways. Van Mill et al (1999) addressed the difficulties of defining pharmaceutical care at an individual level, arguing that for an observer, what pharmaceutical care was and how it fitted into healthcare was not clear. Based on a literature review, they argued that different approaches were embedded in practice and stated that when defining pharmaceutical care, the culture, language and healthcare practice of the country had to be taken into account. Likewise, Barber (2001) argued that whilst pharmaceutical care was a patient centred concept, the definitions used talked of the patient's clinical condition, rather than the patient and were therefore not patient centred. The aims of pharmaceutical care were therefore stated in terms of the

disease rather than the patient. He argued that the principles of pharmaceutical care were not adequately developed, and that this had caused problems when people tried to apply them in practice. Likewise, the inadequacy of the original definition of pharmaceutical care was why a wider range of definitions had since been developed. Van Mil et al (2001) also concluded that lack of time and money were major barriers for the implementation of pharmaceutical care in European countries.

Hepler and Strand (1990) came up with the most widely accepted definition for pharmaceutical care, and defined it as:

.....the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quantity of life. These outcomes are (i) cure of a disease; (ii) elimination or reduction of a patient's symptomatology; (iii) arresting or slowing of a disease process; or (iv) preventing a disease or symptomatology.

Over time Strand stated that this definition was not complete and redefined pharmaceutical care as, 'A practice in which the practitioner takes responsibility for a patient's drug related needs and holds him or herself accountable for meeting these needs' (Simpson, 1997).

Therefore the practitioner (hopefully a pharmacist) working to this new definition ascertains all the medicines that a patient is taking, from whatever source, assesses them for reasonableness and effectiveness in the light of the patient's condition, develops a care plan and follows up their progress on a regular basis.

3.7 The concept of medicines management

The concept of medicines management is not as well defined but seems to originate from organisations which paid for drugs, and therefore wanted to 'manage' them (Barber 2001). The term medicines management has become increasingly popular over the last ten years, with numerous definitions cited in the literature (Department of Health, 2000c; National Prescribing Centre, 2002; The Community Pharmacy Medicines Management Evaluation Team, 2004). The term medicines management, tends to be used more frequently in England, rather than the term pharmaceutical care, which is used in other countries including Scotland (Simpson, 2001). Various suggestions have been made as to why England uses the term medicines management instead of pharmaceutical care. One of these involves the possible sensitivities of doctors regarding the phrase 'taking responsibility for the patients' drug related needs and being accountable for meeting those needs', who may regard this as an invasion of territory (Simpson, 2001).

Medicines management is a concept that encompasses a range of activities intended to improve the way that medicines are used, both by patients and by the NHS. Medicine management schemes can include all aspects of the supply and use of medicines, from an individual medication review to a health promotion programme. Examples of common medicines management activities include prescription review, medication monitoring, pharmacist led clinics, management of repeat prescribing, services to nursing and residential homes, domiciliary services, primary/secondary care interface management, and patient education (National Prescribing Centre, 2002).

As of yet there is no commonly agreed definition of medicines management. In the CPMMP, the definition used was 'The process of optimising beneficial outcomes and minimising harm from medicines, including medication review (appropriateness), monitoring and advice to patients and prescribers' (The Community Pharmacy Medicines Management Project Evaluation Team, 2004). This will be the definition used throughout this thesis.

There have been attempts to explain the differences between pharmaceutical care and medicines management. Simpson (2001) suggested that pharmaceutical care is a type of medicines management, but medicines management is not pharmaceutical care. Simpson (2001) suggests that medicines management should be viewed as an 'umbrella' term', as it allows for a variety of practices and processes to fall within it. Jenkins and Ghalamkari (2001) have also endorsed this view and have suggested that most patients will receive medicines management without pharmaceutical care and this creates the dilemma of the ability to target those who need full pharmaceutical care.

3.8 Previous medicine management services conducted by pharmacists

The literature shows that community pharmacists have been involved in a selection of medicine management and pharmaceutical care initiatives in many different disease states. These include initiatives in asthma and chronic obstructive pulmonary disease (Weinberger et al, 2002), diabetes (Clifford et al, 2002), hypertension (Bogden et al, 1998), hypercholesterolaemia (Tsuyuki et al, 2002; Donaldson & Andrus, 2004), congestive heart failure (Gattis et al, 1999) and angina (Ryan-Woolley et

al, 2000). Pharmacists have also begun to develop roles in health promotion (Anderson, 1995), for example, smoking cessation (Maguire et al, 2001), repeat prescribing schemes (Bond et al, 1999; Wilson et al, 2002), the supply of emergency hormonal contraception via patient group directions (O'Brien and Gray, 2000; Bissell and Anderson, 2003), managing anticoagulant clinics (Macgregor et al, 1996) and reviewing medication in the elderly population (Zermansky et al, 2001; Sellors et al, 2003) These initiatives have ranged from being small scale service developments to large scale RCTs.

Publications on MEDLINE, EMBASE, CINAHL, PHARMLINE and the Cochrane database, were searched from January 1990 to present day. This time frame was chosen to incorporate any pharmacy initiatives which had resulted from Government and independent health policy recommendations for the pharmacy profession (as discussed in Chapter 2). Likewise, the literature suggests the concept of pharmaceutical care and medicines management started to fully evolve in the 1990s (Hepler and Strand, 1990; Barber 2001). I hoped this time frame would identify pharmacy initiatives which had resulted from these processes of care.

The following search terms were used: pharmacist(s), community pharmacists, health promotion, community pharmacy, pharmacy, coronary heart disease, coronary disease(s), cardiovascular disease(s), general practitioners, GPs, physicians, patient compliance, blood pressure, cholesterol, and smoking cessation. Inclusion criteria used included RCTs and CCTs looking at CHD from any country, English language, and studies which involved pharmacists having interventions that involved the following:

- Target drugs, which are used in the treatment of CHD e.g. lipid-lowering agents, beta-blockers and aspirin.
- Studies which involved collaboration with GPs/physicians
- Studies which involved lifestyle factors affecting CHD e.g. smoking cessation or hypertension control

Exclusion criteria included studies involving heart failure, anticoagulation, and drug costs as their primary outcomes.

Also consulted was a literature review of RCTs and CCTs of community pharmacists and medicine management for patients with CHD (Watson et al, 1999). This review identified and described 25 trials (14 RCTs and 11 CCTs) from January 1994 to August 1999, which met their inclusion criteria. The authors concluded that the reported studies clearly demonstrated the potential of pharmacists to improve medicine management at both an individual patient and global level.

3.8.1 Pharmacists and hypertension trials

Trials have been identified (both RCT and CCT) where pharmacists have had a role in evaluating interventions for hypertensive patients (Park et al, 1996; Carter et al, 1997; Gourley et al, 1998; Bogden et al, 1998; Blenkinsopp and Phelan, 1999; Chisholm et al, 2002; Garcao et al, 2002; Borenstein et al, 2003). Table 1. provides details of the trial characteristics. With the exception of Carter et al (1997), all studies found that the pharmacist intervention resulted in a significant reduction in blood pressure compared to the control group. When measured, patient compliance also increased in the intervention group.

Patient satisfaction was measured in three of the studies; all reported that this had increased in the intervention group after seeing the pharmacist. However, the studies did not give any indication why their levels of satisfaction had increased, nor did they indicate the patients' previous relationship with the pharmacist.

Park et al (1996) reported the percentage of recommendations made by pharmacists, which had been implemented by physicians. However, they gave no indication of the interprofessional barriers between the two parties, nor whether the working relationship impacted on whether interventions were followed by the physician. Bodgen et al (1998) did address relationship issues between pharmacists and physicians, and suggested that considerable emphasis should be placed on the interaction between the pharmacist and physician in determining how successful a pharmacist intervention study could be. They stated in their study, that there was a sustained positive rapport among the physicians, pharmacists and patients, and concluded this was likely to be an important factor in achieving success. They also concluded that pharmacists and physicians were aware of each other's roles, and this may have helped them to cooperate and respect divergent opinions.

3.8.2 Pharmacists and angina trials

There were fewer studies identified in the literature regarding pharmacists' impact in delivering a MMS to patients with angina (O'Neil et al, 1996; Ryan-Woolley et al, 2000; McAlister et al, 2001). However, the trials available suggest that the pharmacist could have (or potentially could

have) a positive impact on the care management of this group of patients⁶.

Table 2. provides details of the trial characteristics.

Ryan-Woolley et al (2000) looked at both evidence-based interventions made by community pharmacists and the interprofessional perspectives of the GP-pharmacist collaboration. Although a small-scale feasibility study, the pharmacists and GPs interviewed expressed a high level of satisfaction about the service and viewed it as a positive experience. The key themes from the GP interviews were the high level of confidence in, and acceptance of the pharmacist in the management of patients with angina. Pharmacists stated they had gained more confidence in the actual and potential role they could have in managing patients with angina. The authors concluded that although positive results were obtained from the study, they acknowledged that the study may have shown a lack of representativeness. A convenience sample was used and the participating pharmacists had been involved in a previous, successful GP-pharmacist collaboration study.

The other angina studies identified, did not measure or comment on the effect of a MMS on pharmacist and physician satisfaction, nor did they comment on how relationships and attitudinal factors between these parties may have affected the outcomes.

⁶ The trial conducted by O'Neil concluded that community pharmacists could deliver a successful MMS to angina patients, although their actual study was conducted with Health Visitors.

3.8.3 Pharmacists and Lipid Management

Table 3. details the studies identified where pharmacists had assisted patients with managing their hypercholesterolaemia (HC) in a range of settings (Shaffer and Wexler, 1995; Gardner et al, 1995; Konzem et al, 1997; Bogden et al, 1997; Tsuyuki et al, 2002; Straka et al, 2005; Paulos et al, 2005). All identified studies, demonstrated a significant reduction in the cholesterol levels of the intervention patients compared with the control patients. Straka et al (2005) and Yamada et al (2005)⁷ also demonstrated that the reduction in cholesterol and target levels achieved in the intervention patients were maintained for up to 18 months post intervention. The study by Gardner et al (1995) demonstrated that community pharmacists could have a role in identifying patients at risk of developing HC, by viewing target drugs that the patient was taking.

⁷ Yamada et al (2005) was not a RCT. It has been included in this review, as it was a follow-up study of the intervention patients involved in the study conducted by Tsuyuki et al (2002).

Table 1. Trial Characteristics – Pharmacists and Hypertension Management

Study	Participants	Interventions	Outcomes	Results
Park et al (1996) USA	64 patients with hypertension Community pharmacists	To determine the effect of pharmaceutical care on blood pressure (BP) control & quality of life. Patients in intervention group received education & advice about their medication, along with BP measurements at four scheduled visits with a community pharmacist.	BP measurements Quality of Life Compliance (%) Patient & physician acceptance of pharmacists' recommendations	Improvements in patient compliance in intervention group compared with control group. 52% intervention group had normal BP at end of trial compared with 17% of this group at the start of trial. Recommendations followed up 53% with physicians & 60% with patients.
Bogden et al (1998) USA	100 subjects with uncontrolled hypertension Pharmacists + physicians	Thirty-minute interview with pharmacist before seeing a physician. The pharmacist took a medication history, emphasised compliance and provided diet & lifestyle advice. Pharmacists also made recommendations to physicians regarding cost effective therapy.	Percentage of patients who reached BP goals	55% intervention group reached BP goals compared with 20% in control group. Authors suggest that rapport between pharmacist and physician may influence outcomes.
Gourley (1998) USA	133 outpatients with hypertension Clinical pharmacists	To determine the effect of pharmaceutical care on clinical, economic & humanistic outcomes for patients with hypertension. Six month treatment period with scheduled visits for intervention group at 4 – 6 week intervals for a total of 5 visits. During visit, pharmacist recorded BP, weight, pulse & compliance.	BP, Pulse Medication compliance Patient satisfaction Quality of life	BP significantly reduced in intervention group. Medication compliance improved significantly in interventions group.
Carter (1997) USA	51 Clinic attendances with hypertension (BP \geq 140/90) Community pharmacists GPs	Trained community pharmacists (had access to medical notes + lab data) had face –to – face interviews with physicians & patients.	BP Quality of life Quality of care Patient satisfaction Number of anti-hypertensive medication Mean drug charges Mean visits charges	No significant differences in BP between intervention + control group. Hypertension services cost more for intervention group. Patient satisfaction values + quality of life scores higher in intervention group.

Table 1. Trial Characteristics – Pharmacists and Hypertension Management Continued.

Study	Participants	Interventions	Outcomes	Results
Blenkinsopp + Phelan (1999) UK	251 subjects with hypertension identified by participating community pharmacists. 25 X Community pharmacists	To test the effects of a community pharmacy based intervention on improving patient adherence in hypertension. Pharmacist administered a patient questionnaire (either face-to-face or via telephone), on 3 occasions, 2 months apart to intervention group. Written /verbal information + referral to GP occurred if appropriate.	BP Compliance Medication problems identified Patient satisfaction & acceptability of pharmacists interventions Patient information needs	Statistically significant BP improvement in BP in intervention group. Increased satisfaction in intervention group. Statistically significant self-reported adherence in intervention group.
Chisholm et al (2002) USA	23 African-American patients >18yrs who had received a renal transplant, with or at risk of developing hypertension Pharmacists	Whether pharmaceutical care could impact on BP management over 12 months. Intervention patients received a quarterly BP assessment & education by pharmacists.	BP	Significant differences in systolic BP between intervention & control group in 2nd, 3rd, & 4 th quarter. Significant differences in diastolic BP between intervention & control group in 2 nd and 4 th quarter.
Garcao & Cabrith (2002) Portugal	82 patients with essential hypertension & taking antihypertensive medication Community pharmacists	Whether pharmaceutical care could impact on hypertension management over 6 months.	Variation of BP between intervention & control group	Significant BP improvement in the intervention group.
Borenstein et al (2003) USA	197 patients with uncontrolled hypertension 39 x primary care physicians 4 x clinical pharmacists	Whether a physician-pharmacist co-management group (PPCM) could help reduce BP in patients with uncontrolled hypertension. Patients in PPCM group received education & recommendations from the pharmacist, with follow-up from the physician.	BP measurements Number of visits Cost per patient	Both intervention & control groups had significant reductions in BP, but reductions greater in intervention group. More patients achieved BP control in intervention group. Patient costs higher in control group.

Table 2. Trial Characteristics - Pharmacists and Angina Management

Study	Participants	Interventions	Outcomes	Results
O'Neil et al (1996) UK	688 patients with angina Health visitors* * Authors conclude this intervention could also be delivered by a community pharmacist	Trained health visitors made 3 home visits per year to discuss way of living with disease and reducing risks of future events. Personal health education from trained health visitor every 4 months.	Number of prescription drugs Visit to GP Smoking Cessation BP Cholesterol level Exercise Visits to Hospital	Reduction in drug usage in intervention group. Episodes of angina decreased in intervention group. No significant differences in the use of the health services.
Ryan-Woolley et al (2000)** UK **This study was not a RCT but has been included, as it looked at both a CHD intervention and the impact of the pharmacist-physician relationship on collaboration.	208 patients with stable angina 5 community pharmacists 8 GP practices/ 17 GPs	To determine whether community pharmacists could contribute to the management of patients with stable angina. Patients received 2X face-to-face interviews with the pharmacist at the beginning +end of the intervention +2 brief interim telephone interviews over a 5 month period. Patients referred to GP if appropriate.	6 Evidence-based interventions - smoking cessation - dietary advice - exercise - aspirin - beta blockers - statins Patient, pharmacist +GP satisfaction to service	93 out of 105 therapeutic interventions accepted by GP. Pharmacists, GP + patients reported high levels of satisfaction with the service.
McAlistair et al. (2001) Canada	Systematic review of 12 RCTS (9803 patients with CHD)	To determine whether multidisciplinary disease management programmes for patients with CHD, improved the process of care & reduced morbidity & mortality.	Whether received efficacious drugs Quality of life Cost of interventions Risk factor profiles	Disease management programmes had positive impacts on processes of care, patients more likely to be prescribed efficacious drugs. Five out of 7 trials evaluated risk factor profiles, these showed significant improvement compared with usual care. Five out of 8 trials evaluated quality of life, better out comes in intervention group.

Favorable results have also been shown from a multidisciplinary 'lipid clinic' team, which included a pharmacist (Shaffer and Wexler, 1995). Patients attending the lipid clinic were four times more likely to reach national goals for LDL-cholesterol. However, although the multidisciplinary composition is discussed, it is not stated how the intra-professional interaction may have impacted on the success of the study. Likewise, no other studies identified (refer to Table 3.) made any reference to relationship or attitudinal aspects between the participating pharmacists and physicians, and in turn how this may have impacted on the intervention.

3.8.4 Pharmacists and smoking cessation

Table 4. details the studies identified where community pharmacists have had a role in smoking cessation (Anderson, 1995; Sinclair et al, 1998; Sinclair, 1999; Maguire et al, 2001). The studies concluded that a higher smoking cessation rate amongst smokers was achieved when community pharmacists had received training in smoking cessation. This training varied from health promotion training to a structured smoking cessation programme. Customers also reported a greater satisfaction with the advice they received about smoking cessation from pharmacists who had received training.

3.9 Summary

The majority of studies identified showed that pharmacist and physician collaboration had a positive, impact on patient care in terms of clinical and economical outcomes. However, few of the identified studies had considered or specifically explored in depth how relationship or attitudinal factors between the participating pharmacists and physicians may have

affected the success of the collaborative interventions. In the final part of this chapter, attention is turned to the CPMMP, along with the focus that I have decided to undertake in this thesis. An overview of the project is detailed, as it provided the subjects and time frames from which I collected my data.

Table 3. Trial Characteristics –Pharmacists and Lipid Management

Study	Participants	Interventions	Outcomes	Results
Shaffer and Wexter (1995) USA	Patients with fasting total serum cholesterol level > 6.85mmol on two occasions Lipid Clinic Team: 1 registered nurse, clinical pharmacist, dietician, psychologist, cardiologist +nurse practitioner	To compare the effect of the lipid clinic team vs routine physician care in treating patients with high cholesterol. Patient attended the lipid clinic and received medical counseling, with follow up visits every 3 months.	Cholesterol levels Education level assessed Diet + education evaluation Behaviour + lifestyle changes Weight + BP	After four clinic visits, patients attending the lipid clinic were four times more likely to reach national goals for LDL cholesterol.
Gardner et al (1995) USA	185 subjects at risk of HC 4 community pharmacists	To compare the effectiveness of selectively screening pharmacy databases to identify patients with potential high HC Intervention patients identified vs mass HC screening. Intervention patients identified with one or more clinical indicator from pharmacy databases. Control group, pharmacists advertised free cholesterol tests to anyone by word of mouth.	Cholesterol levels	Cholesterol readings were higher in the intervention group. Higher % of borderline cholesterol levels in control group. Authors conclude identification of target drugs by pharmacists could detect individuals with risk factors for HC compared to random screening.
Konzem et al (1997) USA	40 subjects with HC Pharmacist + physician.	To determine whether pharmaceutical care with pharmacist & physician team could increase patient acceptance & compliance with colestipol therapy & improve outcomes. Intervention patients met pharmacist for one hour before start of cholesterol therapy for intensive counselling. Compliance encouraged at 2, 4 + 6 weeks by telephone and follow up visit at 8 weeks. Telephone contact at 26 and 52 weeks.	Reduction in total cholesterol LDL + HDL cholesterol Cholesterol Achievement of LDL Cholesterol goals	After 52 weeks, achievement of LDL cholesterol was higher in the intervention group. No significant differences in compliance but 65% in intervention group still taking drug at one year compared with 40% in control group.

Table 3. Trial Characteristics – Pharmacists and Lipid Management Continued.

Study	Participants	Interventions	Outcomes	Results
Bodgen et al (1997) USA	94 outpatients with a total cholesterol of 6.2mmol/L (240mg/dl) or higher Pharmacists	To determine the effect of a pharmacist/physician team on lowering cholesterol. Intervention patients met pharmacist prior to seeing physician. Patient provided with education & clinical recommendations passed to physician.	Total cholesterol levels % patients who achieved National Cholesterol Education Programme (NCEP) % interventions accepted by physician	Total Cholesterol reduced by 43% in intervention group compared with 21% in control group. 90% pharmacist recommendations accepted by the physician.
Tsuyuki et al (2002) Canada	675 patients at high risk of cardiovascular events 54 community pharmacies.	To determine the effect of a community pharmacist intervention, on the process of cholesterol risk management in patients at high risk for cardiovascular events. Intervention patients received education, referral to their physician and regular follow up for 16 weeks, with recommendations sent to physician.	Total fasting cholesterol measurement % of patients receiving a prescription for a new cholesterol – lowering medication or an increase in dosage of a cholesterol-lowering medication Medication use	57% of intervention patients reached cholesterol goals compared with 31% in control group. % of new prescriptions for cholesterol –lowering drug 10% intervention group vs 4% control group. Increased medication use in 3% intervention group vs 1% control group. Study terminated early due to beneficial effects.
Straka et al (2005) USA	481 patients with CHD and non-target LDL levels 4 clinics (of which clinical pharmacists made up team)	To compare the results of a collaborative approach with pharmacists vs usual care for achieving LDL levels of 100mg/dl or less. In intervention group pharmacist assigned to a patient to develop & implement a patient-specific care plan & to provide information.	Changes in LDL levels Sustainability of the impact, observed up to 18 months after discontinuation of the intervention	LDL levels reduced by 27.5% in intervention group compared with 4.6% in control group. When active programme discontinued for 18 months, 65% of intervention patients vs 42% control patients remained at target LDL level.
Paulos et al (2005) Chile	42 patients being treated for dyslipidemia 1x community pharmacist	To implement a pharmaceutical care programme for dyslipidemic patients within a community pharmacy setting. Intervention over 16 weeks. Intervention patients received 5 interviews during this time to receive education & clinical measurements. Control group received 2 interviews during intervention period.	Total cholesterol level Triglyceride level Body Mass Index (BMI) Drug Adherence Number of drug related problems (DRPs) Quality of life	Total cholesterol (77% vs 23%) & triglyceride levels (77% vs 22% increase) decreased more in the intervention group compared with control group. 26 DRPs detected in intervention group (24 resolved) compared with 26 in control group (5 resolved). BMI decreased more in intervention group Quality of life improved in intervention group High drug costs & failure to remember to take drug most common cause of non drug adherence.

Table 4. Trial Characteristics – Pharmacists and Smoking Cessation Management

Study	Participants	Interventions	Outcomes	Results
Anderson (1995) UK	40 community pharmacies (20 control + 20 involved in a health promotion scheme) 1x covert participant researcher	To evaluate whether training in health promotion affected what happened in pharmacy practice.	Availability of smoking cessation therapy & information Duration of interview Willingness of the pharmacist to help provide advice Overall satisfaction	Greater satisfaction with the trained pharmacists' consultations. Training to pharmacists improved the advice given, counselling & communication skills & handling of health promotion leaflets.
Sinclair et al (1998) UK	492 customers who sought advice on smoking cessation or bought an OTC anti-smoking product Community pharmacists and community pharmacy personnel	To evaluate the effect of a training workshop for community pharmacy personnel on smoking cessation.	Smoking cessation rate	No significant difference between the proportion of 'quitters' in the intervention & control group, but the intervention group was associated with an increased and more useful counselling and higher smoking cessation rate.
Sinclair et al (1999) UK	134 community pharmacy personnel	To monitor the duration of the training effect on smoking cessation from community pharmacy personnel.	Attitudinal differences	Training on smoking cessation had a significant effect on knowledge for at least 3 years, since at both 24 + 36 months the intervention pharmacy teams had a significantly greater knowledge + understanding of the model than the controls.
Maguire et al (2001) UK	124 Community Pharmacists 484 Smokers	Evaluation on whether a structured community pharmacy –based smoking cessation programme (the Pharmacists' Action on Smoking (PAS) model) gave rise to a higher smoking cessation rate. The PAS intervention involved a structured counselling programme, an information leaflet & follow-up weekly for the first few weeks, then monthly as needed.	Self – reported smoking cessation for 12 months with continued cessation at a 12 month follow-up	Smokers in the PAS group had a higher smoking cessation rate than the control group.

3.10 The Community Pharmacy Medicines Management Project

As reported previously in this chapter, the reduction of CHD is a national priority, with the use of aspirin, beta blockers and statins often being under-utilised in CHD patients. There is also evidence that pharmacists can contribute to patient care through medicines management initiatives in CHD. In addition, they can have a positive effect through lifestyle changes, particularly smoking cessation. A further consideration is that many patients with CHD have other conditions for which they are prescribed repeat medication and are receiving polypharmacy regimens, which pharmacists could review. With this evidence available that community pharmacists can have a beneficial impact, the CPMMP was proposed.

The CPMMP was developed by the PSNC, funded by the Department of Health, and evaluated by an independent research team. The project was implemented in nine pilot sites throughout England and involved 1493 patients (980 intervention and 513 control), 62 pharmacists and 164 GPs.

3.11 Aims and objectives

The aim of the study was to evaluate the introduction of a MMS by community pharmacists for patients with CHD (defined as previous MI, angina, coronary artery by-pass graft (CABG) and angioplasty).

The primary objectives of the CPMMP were to:

- Compare the proportion of patients receiving appropriate treatment (as defined by current available evidence and guidelines) between intervention and control groups, at baseline and at the end of the intervention period.
- Quantify 'health gain' by describing the change in patients' overall health status after the intervention period, as defined by standard measures.
- To conduct an economic evaluation of the medicines management intervention (including estimates of drug cost changes).

The secondary objectives of the CPMMP were to:

- Describe the opinions of the community pharmacists, patients, GPs and their staff about a MMS before and after its introduction.
- Describe the barriers to implementation and make recommendations for change.
- Describe the role of OTC medicines in the overall patient management of this condition.

3.12 The research team

The Universities of Aberdeen, Keele and Nottingham and the College of Pharmacy Practice were responsible for evaluating the project. The research team consisted of a Research Project Manager (based in Aberdeen), three Research Fellows (one in each University), and nine local research co-coordinators ((LRCs), one based in each project site). The principle grant holder and investigator was Professor C. Bond (based in

Aberdeen). Key academic staff at each of the institutions made up the Steering Group and were responsible for the delivery of the research (Appendix 1 provides details of who made up the Community Pharmacy Medicines Management Evaluation Team). Training for community pharmacists prior to the delivery of the intervention was designed and provided by the Centre for Pharmacy Postgraduate Education (CPPE).

3.13 Project design and the medicines management intervention

The project was a RCT (where the control group represented 'usual care' Vs the medicine management intervention). A RCT was chosen as the preferred project design, as if conducted appropriately the risk of bias should be minimised and the validity of the results optimised (Deeks et al, 1996). The primary subjects for the study were patients with CHD, and were identified from general practices computer systems. Secondary subjects were community pharmacists and health care professionals caring for the recruited patients, for example GPs and their staff. The main data source for both intervention and control patients were obtained from patients' medical records by audit clerks.

Community pharmacists received training prior to the delivery of the intervention, which was provided by CPPE. Eligible patients were identified and invited on to the study by participating GP practices (see Figure 1.). Once the patient had returned the consent form indicating their intention to participate, along with the name of the pharmacy that they used for their medicines, they were randomised by Aberdeen to either intervention or control group. To maximise the number of patients experiencing the intervention a 2:1 intervention/control ratio was used.

Participating pharmacists were informed of the patients that had been allocated to the intervention group and they received a core set of medical information about these patient extracted from their medical records. The intervention comprised of an initial consultation with the community pharmacist to review the patient's medication, making recommendations and giving life style advice where appropriate. Appropriateness of therapy, compliance and concordance, lifestyle and social and support issues were to be addressed, all of which were communicated to the GP using a standard form (with duplicate forms being retained in the pharmacy).

The pharmacist also followed up the progress of the patient over the 12-month intervention period, determining the number of subsequent consultations, based on the needs of each patient. Control patients were advised that they would continue to receive their standard treatment.

3.14 Primary and secondary outcome measures

The effectiveness and efficiency of the intervention was assessed using primary and secondary outcome measures. These were derived from data in the medical records, information on the intervention form, and patient and healthcare professional questionnaires at baseline and follow-up. Interview and focus group data were also used. The primary outcome measures were appropriate treatment (derived from the NSF), health status and an economic evaluation. The secondary outcome measures were patient risk of death, role of OTCs, patient satisfaction, experiences and attitudes of patients and healthcare professionals. All measures were assessed at baseline and at twelve months.

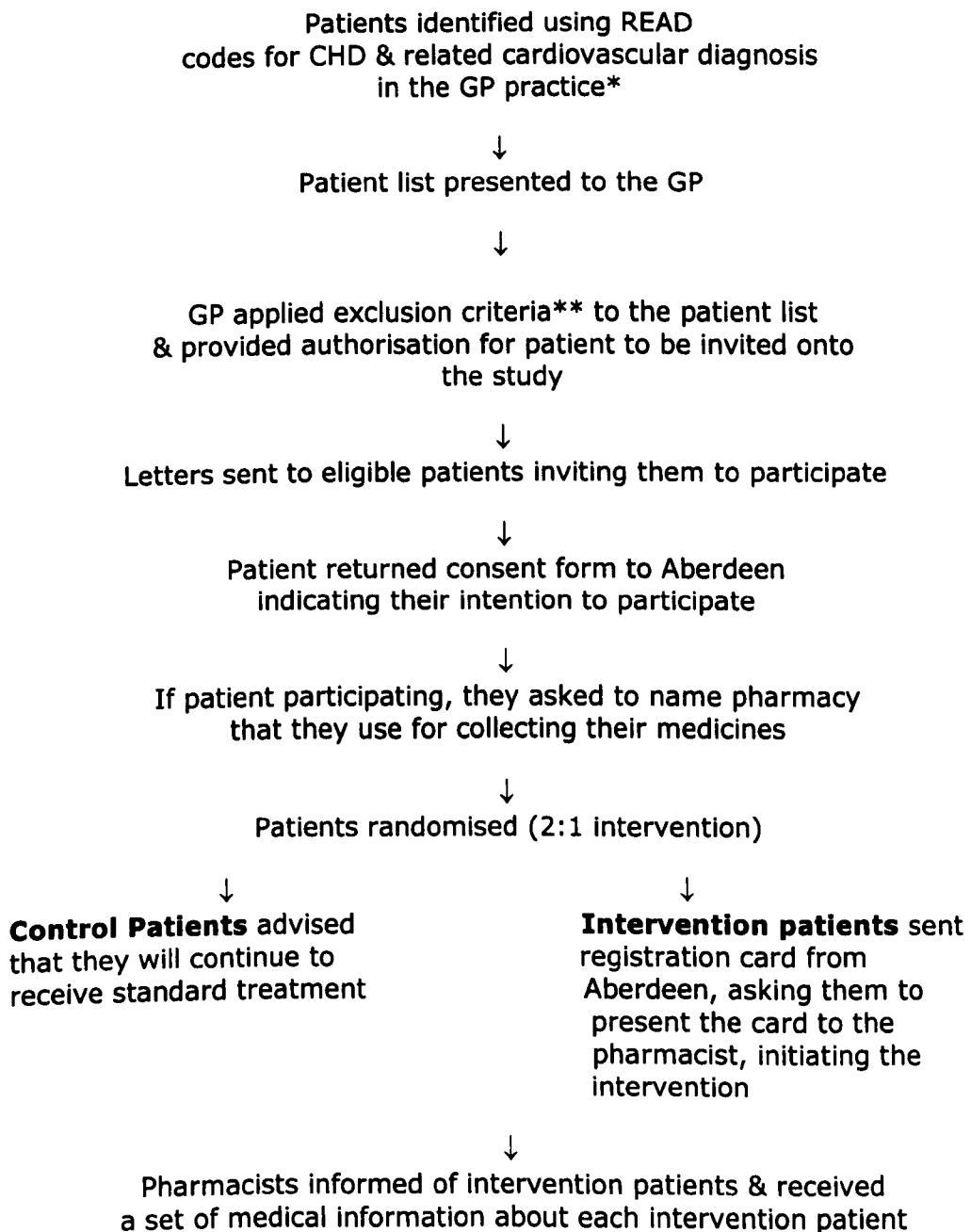
3.15 Pilot sites

Thirty-three sites expressed an interest to the PSNC and subsequently put in a bid to take part in the CPMMP. After discussion with the Project Manager and the relevant project group, nine sites were selected using purposive sampling to include a cross section of sites (e.g. rural, small city, city center), ethnicity, income, community pharmacies (e.g. multiple chains and independents) and general practice (e.g. large, small, dispensing & non-dispensing).

The project was conducted in the following nine localities across England.

- Lichfield
- Nantwich
- North Southwark (London)
- North Tyneside
- Poole
- Portsmouth
- Salford
- Shipley & Baildon
- Walsall

Figure 1. Patient Recruitment Process in the Community Pharmacy Medicines Management Project



***Inclusion criteria** – Male & females (18 years and above) with CHD (defined as previous MI, angina, CABG or angioplasty)

****Exclusion criteria** – any patient, which was illiterate, innumerate, suffers from alcohol or drug misuse, terminally or seriously ill, severe mental illness, unable to give informed consent, or in the opinion of their GP is unsuitable to participate in the study

3.16 Data collection

Both quantitative and qualitative data were collected in the CPMMP. All participants were sent postal questionnaires at baseline and follow-up. Qualitative interviews were undertaken with a sample of patients, community pharmacists and GPs. Focus groups were also undertaken with a sample of community pharmacists.

Supplementing quantitative methods with qualitative techniques allowed the data to be checked for accuracy, content validity and relevance of the quantitative data that had been collected. Also, by combining different research methods and investigators in the same study, deficiencies or bias that came from an investigator or method could partially be overcome.

The Research Fellow in Aberdeen was primarily responsible for developing and analysing patient, pharmacist and GP (and their staff) questionnaires. The Research Fellow in Keele was primarily responsible for selecting, conducting and analysing patient qualitative, semi-structured interviews. They were also responsible for developing, testing and validating a patient satisfaction and compliance and concordance questionnaire. The Nottingham Research Fellow (myself) was primarily responsible for conducting and analysing interviews/focus groups with pharmacists, GPs and patients.

3.17 Rationale for this thesis

As detailed earlier on in this chapter, there have been many studies that have looked at collaboration between pharmacists and physicians to evaluate the impact on patient care in terms of clinical and economic outcomes. However, few studies have commented or specifically explored in depth the effect of relationships and attitudinal factors between pharmacists and physicians to gain an understanding of how this affects collaborative work, and ultimately the success of role development for the pharmacist.

With recent Government reforms and changes to the community pharmacist contract, community pharmacists extending their role beyond dispensing medication is becoming an ever more realistic option (Department of Health, 2000b, 2003a; Pharmaceutical Services Negotiating Committee, 2004). To improve the outcomes of drug therapy, there has been an increasing focus on community pharmacists providing MMS (Department of Health, 200b). Inevitably, community pharmacists will need to communicate and collaborate more extensively with GPs, if they are to successfully accomplish this role extension. Likewise, the support of GPs is essential for pharmacists to successfully deliver a collaborative MMS. It is therefore important to understand how community pharmacists' and GPs' perceptions and working relationship with each other could affect the ability of community pharmacists to develop new roles.

As discussed in chapter 2, the available literature suggests that there are significant attitudinal barriers between pharmacists and physicians (Adamcik et al, 1986; Spencer and Edwards, 1992; Ellis et al, 1992; Smith et al, 2002; Hughes and McGann, 2003). Likewise, the literature also

suggests that physicians have often seen the extension of the pharmacist's role as boundary encroachment (Eaton and Webb, 1979; Adamcik et al, 1986; Gilbert, 1997, 1998a-c 2001; Edmunds and Calnan, 2001). I believe positive perceptions and good relationships between community pharmacists and GPs are key components to successful collaborative working. However, as the available literature indicates it is an area that is rarely given much consideration. I therefore believe it is an area that needs to be addressed and researched as these findings could help inform and facilitate future collaborative ventures between community pharmacists and GPs.

The specific questions driving the research were how relationships and attitudinal factors between the participating community pharmacists and GPs impacted on the success of the community pharmacist conducting a MMS. I also wanted to establish whether perceptions and relationships between the two professions altered during the course of the project. Finally, I wanted to frame this research using concepts from a sociological perspective. For example, did the participating pharmacists and GPs view the extended role that the community pharmacists were undertaking in this project as boundary encroachment, or as tasks that GPs were willing to delegate to them?

The participating pharmacists and GPs in the CPMMP were ideal subjects to use, as they had varying clinical experiences (this ranged from being newly qualified to having over thirty years of clinical experience), worked in a variety of settings (from single handed to large GP practices and similarly, small independent community pharmacies to large multiple chain pharmacies), and had different degrees of working relationships with each other (these ranged from no prior relationship with each other to

established relationships, where the pharmacist and GP socialised together). I hoped this diversity of subjects would help me gain some insight and draw some conclusions to my research questions.

3.19 Summary

CHD is currently the most common cause of death in the UK and therefore the reduction in mortality and incidence of CHD is a major public health goal. Previous pharmaceutical care and medicine management initiatives in CHD have shown that pharmacists can have a positive impact in managing patient care. The majority of these studies have mainly focused on the impact the pharmacist could have on clinical outcomes (such as a reduction in blood pressure or cholesterol levels), economic outcomes and patient satisfaction levels. However, few studies have considered or specifically looked at the effect of the relationship or attitudinal factors between the pharmacist and physician to gain an understanding of how this affects collaborative schemes, and ultimately the success of the role extension for the pharmacist.

In an aim to address this public health goal the CPMMP was developed. This project aimed to evaluate the introduction of a MMS by community pharmacists for patients with CHD. This thesis was an exploration of the relationships and attitudinal factors between the community pharmacists and GPs participating in the CPMMP, to see how these affected the community pharmacist having an extended role.

4. AIMS AND OBJECTIVES

4.1 Aims of the Study

To critically assess the views and experiences of community pharmacists and GPs involved in a MMS after its introduction; exploring how relationship and perceptions of each other may influence community pharmacists carrying out a MMS, from the view point of both community pharmacists and GPs.

4.2 Objectives

The specific objectives for the qualitative work with community pharmacists were to:

1. Describe community pharmacists' current working relationship with GPs.
2. Determine whether a MMS had altered community pharmacists' working relationship with GPs.
3. Determine how community pharmacists thought GPs perceived them.
4. Determine whether involvement in a MMS had altered these perceptions.

5. Assess the attitudes and experiences of community pharmacists towards their participation in a MMS after its introduction and at the end of the twelve month intervention period.
6. Identify barriers to community pharmacists' involvement in a MMS.

The specific objectives for the qualitative interviews with GPs were to:

1. Describe GPs' current working relationship with community pharmacists.
2. Determine whether a MMS had altered GP's working relationship with community pharmacists.
3. Determine GP's knowledge about community pharmacists.
4. Describe the views of GPs about collaborating with community pharmacists.
5. Identify barriers to community pharmacists' involvement in a MMS from the viewpoint of GPs.

5. METHODOLOGY

5.1 Introduction

This chapter gives an overview of qualitative research, discussing the broad intellectual traditions on which it is based, the differences and similarities between qualitative and quantitative research, and criticisms of its use. Also discussed are the principles of focus groups and semi-structured interviews. The analysis of qualitative data will then be considered, particularly focusing on the 'Grounded Theory' approach, explaining its use within this project. Finally, the theory and epistemological orientation of this piece of research will be discussed, along with justifications on why focus groups and semi-structured interviews were chosen as the data collection methods for this piece of research.

5.2 Differences and similarities between qualitative and quantitative research

Qualitative research has its origins in the social, rather than the natural sciences. There have been many attempts to define qualitative research and it is important to point out that it is not a unified set of techniques or philosophies, but has grown out of a wide range of intellectual and disciplinary traditions (Mason, 2002). It has been used extensively within disciplines such as sociology, anthropology, history, and psychology (Harding and Gantly, 1998). Strauss and Corbin (1998:21) define it as:

"Any type of research that produces findings not arrived at by statistical procedures or other means of quantification."

It is argued that there are certain common, characteristics of qualitative research that distinguish it from quantitative research strategies (see Table 5). However, it should be noted that these characteristics are better viewed as tendencies within qualitative research rather than hard and fast differences, as the qualitative/quantitative research paradigms have become less polarised than in the past (Harding and Gantley, 1998).

Table 5. Differences and Contrasts between Quantitative and Qualitative Research Strategies

	Quantitative	Qualitative
Principal orientation to the role of theory in relation to research	Deductive; testing of theory e.g. Hypothesis testing	Inductive; generation of theory e.g. Hypothesis generating
Epistemological orientation	Natural science model, in particular positivism	Interpretivism
Ontological orientation	Objectivism	Constructionism
Relationship between researcher & subject	Distant	Close
Research Strategy	Fixed, structured	Flexible, unstructured
Image of social reality	Static	Processual
Nature of data	Hard, reliable data	Rich, deep data

Adapted from Bryman A. Social Research Methods 2nd Edition. Oxford University Press. 2004 p.20 and p.287

Qualitative research can be construed as a research strategy that usually emphasises words rather than quantification in the collection and analysis of data (Bryman, 2004). The rationale underpinning qualitative methods lies in an exploration of how people make sense of their social world, in order to provide insights into people's behaviour that is not readily

accessible through surveys (Harding and Gantley, 1998). It is usually carried out with small samples of individuals and has often been presented as attempting to understand events, actions, values and meanings from the individual's perspective, rather than the researcher's. These methods are often concerned with aspects of social reality such as interaction, as opposed to hypothesis testing aspects of social trends, and have a processual image of social reality (Bryman, 2004). Qualitative methods tend to have a less structured approach, to allow the researcher to pursue respondents' meanings and concepts as they emerge from the data. It is argued that the researcher often builds a close relationship with the subject, producing rich, deep data.

Qualitative approaches tend to be inductive in which the emphasis is placed on the generation of theories. The researcher moves from observation to hypothesis, as opposed to starting with a research question or a hypothesis that precedes any data collection. A researcher undertaking qualitative work is encouraged not to separate the stages of design, data collection and analysis but to go backwards and forwards between the raw data and the process of conceptualisation, thereby making sense of the data throughout the period of data collection (Pope and Mays, 1995).

From an epistemological position it is broadly interpretivist, which is in contrast to the adoption of a natural scientific model in quantitative research. Interpretivism (also known as symbolic interactionism) rejects the idea that social structures (or the needs of society) might influence or significantly shape the activities of humans (Bissell et al, 2002).

Interpretivists are interested in the processes in which individuals make sense of and attribute meaning to social events to try to get a sense of how the 'self' is managed, presented or influenced in the course of interaction.

They believe the 'self' is not some fixed entity that an individual is born with, but is emergent and continually developing. Interpretivism has produced a plethora of literature into the insights of individuals in the health care settings, regarding issues such as health beliefs and experience of health and illness (Bissell et al, 2002).

5.3 When to use qualitative research

Qualitative research methods are considered particularly advantageous in studies where there is little pre-existing research, or the issues are sensitive or complex. The qualitative investigator has the advantage of getting close to the research material allowing an in depth exploration of the subject. A large quantity of in-depth information can be obtained, which can be tested in subsequent quantitative studies if necessary and appropriate. Often qualitative description is a prerequisite of good quantitative research, particularly in the initial stages of questionnaire design and scale construction (Bowling, 2002). Qualitative techniques have a wide range of applications in health care research and have commonly been used in documenting the experience of chronic illness, in investigating practitioners' and patients' attitudes, beliefs and preferences, as well as looking at how clinical evidence is turned into practice (Green and Britten, 1998).

5.4 Sampling in qualitative research

Qualitative interviewing is usually based on small sample sizes, and the sampling techniques preferred include convenience sampling, purposive sampling, snowballing, and theoretical sampling (Bowling, 2002). Sample sizes are small because of the detailed and intensive work that qualitative

studies usually entail and also due to the complexity of the data, which are expensive and time-consuming to analyse. The data also aims to provide in-depth insights in order to understand social phenomena rather than statistical information (Bowling, 2002).

The application of mathematical rules to calculate sample size is generally not appropriate. Even if the sample were random, due to the small sampling fraction and resulting possibility of a high sampling error, the application of probability statistics would be inappropriate (Smith, 1998). The data obtained from qualitative interviews are used to increase our insight to social phenomena rather than assume representativeness. However, the issue of non representativeness of people, and hence the generalisability of the data is a criticism that is frequently encountered with qualitative data (Mays and Pope, 1995).

5.5 Criticisms of qualitative research

Three of the most prominent criteria for the evaluation of social research are reliability, replication (generalisability) and validity. Often qualitative research is criticised for lacking scientific rigour (Mays and Pope, 1995). Some argue that qualitative and quantitative research is very different and that it is not possible to judge qualitative research by using conventional criteria such as reliability, generalisability and validity (Mays and Pope, 1995). However, various strategies are available within qualitative research to help protect against bias and enhance the reliability of findings.

It is argued that qualitative findings are too impressionistic and subjective, as they rely too much upon on the researcher's views about what is significant and important (Mays and Pope, 1995). The close personal

relationships that the researcher may form with their subjects can make it too subjective, or can influence what is said in an encounter. However, it could be argued that the qualitative researcher aims to investigate people in their usual environments and seeks a close involvement with the subjects under investigation, as this allows an in depth exploration with an awareness of the social content in which data are collected.

Reliability may also be a problem due to the way a researcher goes about categorising the events or activities described. When people's activities are tape-recorded and transcribed, the reliability of the interpretation of transcripts may be weakened by a failure to record apparently trivial but often crucial, pauses and overlaps (Silverman, 2000). Silverman (2000) argued that transcription of interview tapes should be carried out using the standards required by conversation analysis. This included revealing features such as hesitations, breaths and pauses in conversation. These authors also argued that in order to improve reliability and validity, qualitative researchers should support generalisations by counts of events (quasi-statistics) and they should use computer-assisted qualitative data analysis software (CAQDAS) to help with coding and analysis. Mays and Pope (1995) suggest that organising an independent assessment of transcripts by additional researchers and comparing agreement between the raters can enhance the reliability of the analysis of qualitative data.

Anecdotalism can also be a criticism in which researchers report a few 'examples' of some apparent phenomenon without any attempt to analyse less clear (or even contradictory) data. This questions the validity of much qualitative research because the researcher has clearly made no attempt to deal with contrary cases and is strongly subject to researcher bias (Silverman, 2000 and 2001).

Qualitative research can also be criticised for its lack of transparency. Often the process of qualitative analysis is unclear (Bryman and Burgess, 1994) and it is difficult to establish from the research what the researcher has done and how they have arrived at their conclusions (Bryman, 2004). However, this is one criticism that can be addressed by the qualitative researcher, simply by providing a detailed methodology in their report (although it should be noted it is often difficult for researchers to provide a detailed methodology due to the tight word restriction placed by journals on research papers). Proponents of qualitative research have also described various methods and techniques that they assert in order to make qualitative research more rigorous (Pope and Mays, 1995; Pope et al, 2000; Hoddinott and Pill, 1997a). For example, Hoddinott and Pill (1997a) have published a list of criteria and suggest that if such methodological detail were included in every paper, a reader would be able to 'replicate' the study and confirm the 'findings'. However, replicating a qualitative study can be difficult as it is often reliant upon the qualitative researcher being the main data collection instrument. What a qualitative researcher decides to focus on may not be what other researchers see as significant. The responses of the subjects are also likely to be affected by the characteristics of the researcher, for example their gender, age, personality and profession. Qualitative data is often conducted with a small number of individuals in a certain organisation or locality. Qualitative methods often have an unstructured approach so that the possibility of exploring meanings and concepts emerging out of data can be enhanced and may be used to explore 'insights' in an ever changing surrounding. Therefore, replication may not be possible or appropriate for some qualitative research as it is impossible to know how the findings can be generalised to other settings.

There is a variety of validation strategies sometimes used in qualitative research. These include triangulation, in which data collection is deliberately sought from a wide range of different, independent sources and means. Feeding the findings back to the participants to see if they regard the findings as a reasonable account of their experience, and to use interviews or focus groups with the same people so that their reactions to the evolving analysis become part of the emerging data (Mays and Pope, 1995, 2000; Smith, 1999).

5.6 The collection of qualitative data

Qualitative data may be collected by a variety of techniques; these include participant observation, interviews, group interviews and focus groups, language-based approaches (such as discourse and conversation analysis), and analysis of historical and contemporary records, documents and cultural products (Bowling, 2002).

5.6.1 Qualitative interviews

The interview is probably the most widely employed method in qualitative research, as it allows the researcher to glean the ways in which research participants view their social world (Bryman, 2004). Qualitative interviews may take the form of being either unstructured (these tend to be very similar in character to a conversation) or semi-structured (the interviewer will have a list of questions or topics to be covered). Semi-structured interviews are conducted on the basis of a loose structure consisting of open-ended questions that define the area to be explored (Britten, 1995). These are useful if the researcher is beginning the investigation with a fairly clear focus, rather than with a general notion of wanting to do

research on a topic, so that more specific issues can be addressed. Questions may not follow on exactly in the way outlined in the schedule and the interviewee will have a great deal of freedom in their reply. This allows the researcher to ask things not on their list but in response to emerging information given to them by the interviewee. However, by and large, all the questions will be asked and a similar wording will be used from interviewee to interviewee. Semi-structured interviewing is also preferred where there is more than one person carrying out the fieldwork in order to ensure a small quantity of comparability in interviewing style (Bryman, 2004). Interviews should be tape recorded (after gaining the interviewee's permission) in order that they can be analysed in detail later.

Interviews may be carried out face-to-face or by telephone, each method having its own set of advantages and disadvantages. For example, telephone interviews have the advantage of being impersonal, which some interviewees may prefer as they feel more comfortable than answering questions face-to-face. As a consequence they may reveal more on the telephone than they would in person and richer data may be collected. Conversely, from the interviewer's perspective, the interviewee's body language (which is often very revealing) can not be observed and it may be harder for the interviewer to build any rapport with their interviewee. It is also much easier for the interviewee to terminate a telephone interview by hanging up. Telephone interviews are often used as second or follow-up interviews to face-to face interviews. In this situation, the interviewee 'knows' to whom they are speaking, having previously met the interviewer. Telephone interviews, like face-to-face interviews, are usually recorded (Grbich, 1999).

Problems often encountered when carrying out qualitative interviews include interruption during the interview, particularly if the interview is carried out in the participant's home or workplace. The interviewee may have 'stage fright' or jump from one topic to another. This may be precipitated by the use of a tape recorder, as it may alarm or make the interviewee self-conscious and the researcher should be aware and sensitive of this. The interviewer should try to use language that is relevant to the people that they are interviewing. Care must be taken in developing suitable open and non-leading questions. The use of closed questions may direct the interview down a path of interest to the researcher, but not necessarily of importance to the interviewee (Smith, 1998). The interviewer should be careful not to ask leading questions or give their opinions as this could lead to a biased interview. They must also maintain control of the interview and need to be flexible in their questioning. Finally, all qualitative researchers need to consider how interviewees perceive them and how the interviewer's characteristics such as class, race, sex and profession may affect the interview (Britten, 1995). The main practical problems associated with semi-structured interviews are that they are expensive and time consuming to conduct, transcribe and analyse. This is particularly pertinent in projects with wide geographical locations.

5.6.2 Focus groups

Focus groups are semi-structured interviews with small groups of individuals (typically between six to twelve people), which rely on the interaction between each other and the group leader (e.g. the researcher) in order to produce data. A group leader (usually the researcher) runs the focus group and is expected to guide the session but not be too intrusive (Morgan, 1998). Focus groups are particularly useful for exploring people's

knowledge and experiences and can be used to examine not only what people think, but also how and why they think that way. They have been widely used to examine people's experiences of disease and of health services (Kitzinger, 1995).

Focus groups are believed to be most effective when the participants share some common background characteristics, thereby allowing the researcher to identify group norms and gain an understanding of the varying perspectives and concerns of different groups of people (Smith, 1999).

Potential advantages of using focus groups as a means of data collection include:

- They do not discriminate against people who cannot read or write.
- They can encourage participation from those who are reluctant to be interviewed on their own (such as those intimidated by the formality and isolation of a one to one interview).
- They can encourage contributions from people who feel they have nothing to say or who are deemed 'unresponsive' (but engage in the discussion generated by other group members).
- Participants are allowed to bring to the fore issues in relation to a topic that they deem to be important and significant. Although this is an aim in an individual interview, the researcher has to relinquish a certain amount of control to the participants in a focus group, allowing the issues that concern the interviewee to surface more easily.

Potential limitations of carrying out focus groups include:

- The researcher probably has less control over proceedings than with an individual interview. The researcher will often have to find a

- balance between letting the focus group 'take-over' the running of proceedings, and the researcher prompting and asking questions.
- There may be problems with the group dynamics, with overly prominent participants and those who participate very little. Equally, the opinions of group norms may silence individuals with differing opinions.
 - The presence of other research participants compromises the confidentiality of the research session.
 - A huge amount of data can be very quickly produced, often making data difficult to analyse. The transcribing time is often more time-consuming than equivalent recordings of individual interviews.
 - They are difficult to organise and persuade people to turn up at the same time.

5.7 Qualitative data analysis

One of the main difficulties with qualitative data is that it generates large amounts of data, but unlike the analysis of quantitative data there are few, well established rules for its analysis. Grounded Theory has become the most widely used framework for conducting and analysing qualitative data (Bryman, 2004). Originally developed in 1967 by Glaser and Strauss, it is a theory that is derived from data systematically gathered and analysed through the research process. Grounded theorising represents a particular version of the link between data and theory statements, emphasising their interdependence and proposing that theory can be generated from close examination of data (Seale, 1999).

It is concerned with the development of theory out of data and the approach is iterative. The researcher starts with a general research

problem and relevant sampling takes place. The data are collected and coding begins, breaking the data down into potential concepts and categories. There is a constant movement backwards and forwards between these steps with early coding suggesting the need for new data, which results in the need for further sampling. More concepts and categories are developed during the process, more data are collected, concepts and categories tested and so on until an understanding of the phenomenon is achieved. The analysis is redesigned during the process as new themes emerge which need to be explored. This eventually leads to categories becoming saturated during the coding process and when theoretical saturation has been reached, this process stops, as additional sampling, adds nothing more to the topic of interest (Bryman, 2004).

Relationships between categories are then explored so hypotheses about connections between categories emerge. This prompts further sampling with the generation of more data. This collection of data is likely to be governed by the theoretical saturation principle and by the testing of the emerging hypotheses, which leads to the development of a substantive theory. The substantive theory will be explored using Grounded Theory processes in relation to different settings from that in which it was generated, which may lead to the development of a formal theory (see Figure 2).

5.7.1 Theoretical sampling and theoretical saturation

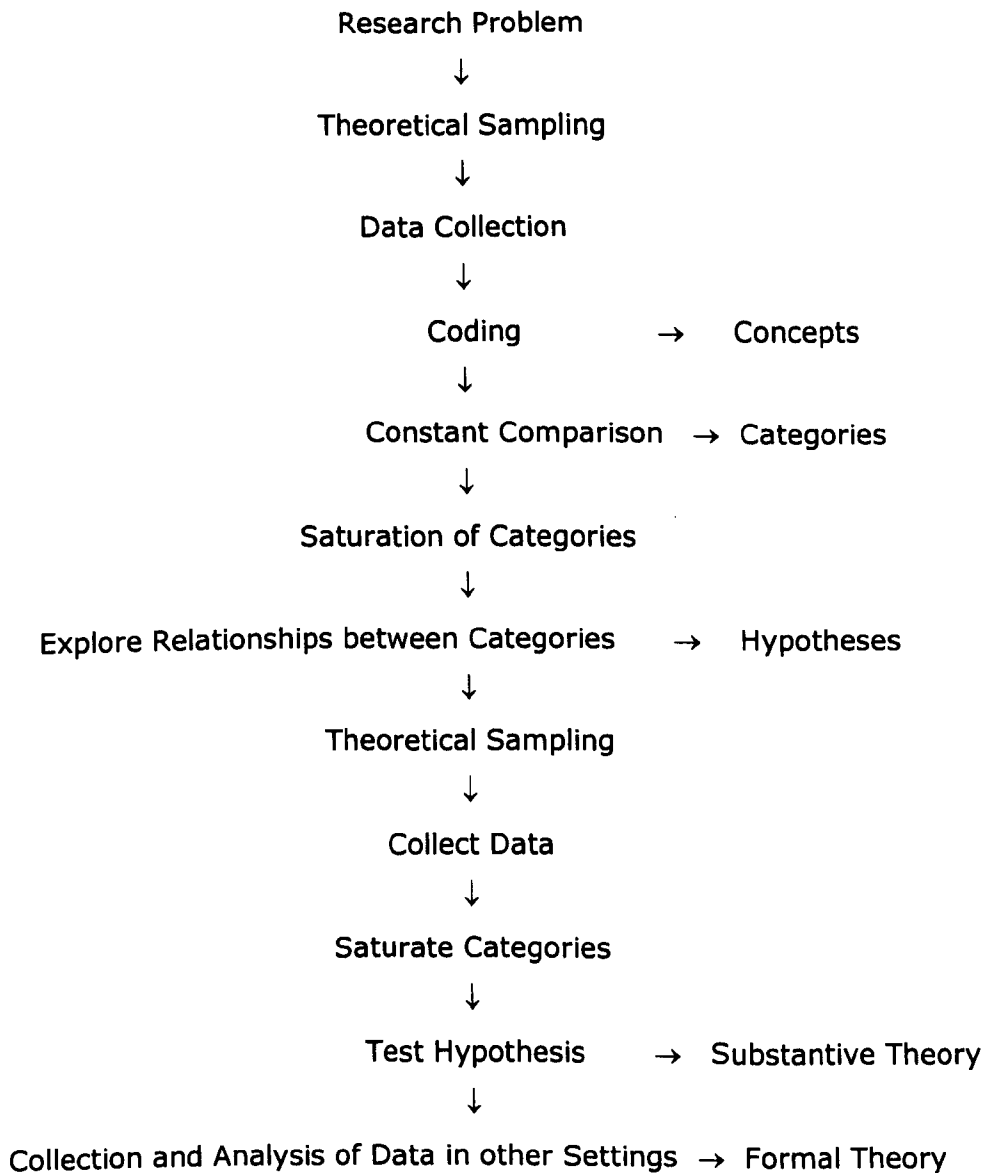
Theoretical sampling is the process of data collection that involves the generation of theoretical categories during the research progression whereby the researcher jointly collects, codes and analyses the data and decides what data to collect next, in order to develop their theory as it

emerges. The aim of this sampling strategy is to collect data to develop and challenge emerging hypotheses. As the process of theoretical sampling is potentially limitless, Glaser and Strauss (1967) proposed a criterion for judging when to stop sampling. They proposed that sampling stopped when no analytical insights were emerging, at which point theoretical saturation had been achieved.

5.7.2 Constant comparison

The constant comparative method is used as a systematic tool for developing and refining theoretical categories and their properties (Seale, 1999). This method proceeds in four stages. First, data are coded into categories so that the different incidents that have been grouped together by the coding process can be compared. This helps to generate ideas about the properties of the category. The second stage of this method involves the integration of categories and their properties, noting how properties interact. The third stage is represented by theoretical saturation, in which no new properties or categories appear and no new interactions occur. The fourth stage is to form a theoretical framework from the well-developed categories (Seale, 1999).

Figure 2. The Processes and Outcomes in Grounded Theory



From Bryman A. Social Research Methods 2nd Edition. Oxford University Press. 2004 p.404

5.7.3 Criticisms of Grounded Theory

There are a number of criticisms to Grounded Theory despite its wide use for analysing qualitative data. There are practical difficulties in carrying out a genuine Grounded Theory analysis. Attempting to get interviews transcribed and conducted, whilst carrying out constant interplay of data collection and conceptualisation is particularly difficult if researchers have tight deadlines. The data analysis approach to this theory is associated with data being coded into chunks. This is criticised as it results in a loss of a sense of context and of narrative flow.

It is doubtful whether Grounded Theory in many instances results in a theory being generated (Bryman, 2004). Its process is vague on certain points such as the difference between concepts and categories, with different writers using the key terms in different ways, which contributes to a reduced understanding of the process of carrying out Grounded Theory.

Grounded Theory advocates an initial theory-neutral observation. It is argued that this is not feasible as the way researchers conduct a study is conditioned by many factors, one of which is what they already know about the social world (Seale, 1999).

5.7.4 Computer-assisted qualitative data analysis (CAQDAS)

The last twenty years has seen the emergence of computer software, which can assist in qualitative data analysis. CAQDAS such as NVivo, Ethnograph and ATLAS are based on a code-and-retrieve theme. They remove most of the clerical tasks associated with the manual coding and retrieving of data, such as cutting out all chunks of texts relating to a code, and pasting them

together. The package however, does not help with decisions about the coding of transcripts, nor does it interpret the data, it merely saves on the manual labour involved in analysing this type of data (Pope et al, 2000).

Packages such as NVivo are also able to code the text into several different categories and to link between codes, retrieving segments of marked text by single codes or combinations of codes, for comparison. There can be multiple linkages between segments of texts, and this is essential for Grounded Theory approaches as they concentrate on extracting the meanings that emerge from the data and the type of coding used (Bowling, 2002).

The use of CAQDAS amongst qualitative data analysts is not universally accepted. The packages are criticised for the distance it puts between the researcher and their data, and the ease with which coded text may become quantified. It has also been suggested that the code-and-retrieve process results in a fragmentation of the textual materials, resulting in a loss of the narrative flow of interview transcripts and decontextualising data. It is also argued that researchers working in a team may experience practical difficulties in coding text when all are involved in one study (Bryman, 2004). The researcher will also require a training period on the package and there will be the initial cost of having it installed.

5.8 The research approach in this project

The use of qualitative methods to produce analytical insights from recounted experiences, beliefs and views in HSR is increasing. Often the 'theory-orientated' approach in HSR analysis is secondary to assembling 'facts' and descriptions in order to answer predefined problems. Therefore,

the chosen method of analysis in HSR sometimes becomes defined more by practical rather than theoretical considerations (Harding and Gantley, 1998). These authors argue that in contrast to 'theory-orientated' social science research, HSR implicitly utilises 'common sense' as its theoretical basis for analysis. They state that to treat what people say and do as self-evident, without having a theoretical framework in which to interpret facts or descriptions, reduces the power of subsequent qualitative analysis.

However Chapple and Rogers (1998), whilst acknowledging the advantages for researchers having an understanding and knowledge of social theory, argue that health professionals should not be put off from conducting qualitative research as they bring their own special experience of dealing with patients and other health professionals to their interviews or observations. They conclude that to suggest that those involved in HSR cannot produce a detailed analysis of the meanings that people attach to their behaviour unless they are trained as social scientists could be suggestive of another form of sociological imperialism.

Whilst the importance of a theoretical framework to qualitative research should be always be acknowledged, it is often difficult to address this when tight practical constraints are imposed on the researcher (which often is a reality with HSR). I believe there is a danger when social scientists claim that HSR often uses 'common sense' as its theoretical basis for analysis that HSR is seen as 'second rate research'. Healthcare professional are often in an ideal position to conduct research, and as Chapple and Rogers (1998) suggest are often able to use their professional experience to their advantage when conducting interviews. For example, access and subsequent interviews with healthcare professionals may be easier to achieve if the interviewer is a peer. Rather than creating a 'hierarchy'

approach to social sciences and HSR research I believe that healthcare professionals should seek where possible the advice of a social scientist, so both theoretical and practical considerations may be addressed when undertaking HSR.

This thesis grew out of a commissioned piece of HSR looking at whether community pharmacists could undertake a MMS from a community pharmacy. My particular interest and the one on which this thesis centred on, was looking at whether the relationships and attitudinal factors between community pharmacists and GPs could affect community pharmacists from extending their role into more clinical domains. On reflection, the theory informed approach to this research was secondary to practical, rather than theoretical considerations when choosing the method of analysis to answer this pre-defined question.

The sociological literature surrounding professional boundary encroachment and the HSR literature on physicians' responses to pharmacists extending their clinical role informed this research. This led to a specific focus throughout the research. Although I started this piece of research with defined research questions, from an epistemological position it was broadly interpretivist in its orientation, as it was important to have contact with the community pharmacists and GPs to understand their relationship with each other. This was imperative in order to investigate and interpret how pharmacists' and GPs' relationships and perceptions of each other could affect the progression of the community pharmacist's role.

5.9 The use of qualitative research methods within this research

In order to meet the aims and objectives set out in this project, qualitative methods (namely focus groups and semi-structured interviews) were chosen. These were chosen as the evaluation methodology because they allowed an in-depth investigation into these objectives. These methods also provided respondents with a forum to offer their own accounts of being involved in the MMS, and gave me the opportunity to probe respondents in more detail about particular areas of interest. I believe obtaining this type of information would have been difficult using a quantitative data collection method, as information would have been lost using a standardised questioning technique. I would not have had the opportunity to clarify answers and question the individual further over more complex issues. These methods also met the practical constraints (for example, other research objectives, time and budget restrictions) imposed on me as a Research Fellow, employed to undertake the CPMMP.

5.9.1 The use of focus groups within this research

Focus groups were initially selected as the primary data collection technique for pharmacists, as the participants shared a common background and the group dynamics facilitated interaction and discussion between participants. It was also the most practical data collection method to obtain views from a number of the participating pharmacists without occurring large travelling costs to the multiple pilot sites.

I initially intended to use this data collection method for both community pharmacists and GPs. However, due to the practical problems I experienced trying to organise focus groups in each of the pilot sites,

coupled with the restrictions placed on me as part of a larger research project (this is discussed further in chapter 9) it became apparent that this data collection method was not going to be feasible.

5.9.2 The use of semi-structured interviews within this research

In the pilot phase of the project, too few pharmacists had carried out medication reviews on patients to feasibly conduct a focus group in each pilot site. It was therefore decided to carry out one-to-one interviews. Convenience sampling was used, with the pharmacist being invited for interview as soon as they had completed a patient review. This allowed in-depth information to be gathered and enabled me to gain an insight about their views and perceptions towards GPs, and towards having an extended role. It also informed the question schedule to be used in the focus groups.

Even though very small samples of pharmacists were interviewed, the disadvantages of carrying out individual interviews were highlighted to me and the Research Team. Pharmacists had little time to be interviewed, so all interviews were conducted during the pharmacist's lunch hour. As a result I was only able to carry out one interview per day, which was both an expensive and time consuming process. It was originally decided that in the main phase of the project focus groups would be used as the main data collection tool. However, as discussed previously, focus groups proved difficult to coordinate and it became apparent they were not a feasible data collection method. Despite the time and expense issues associated with individual semi-structured interviews, it became apparent that I would have to use this data collection method for some of the pharmacists and all of the GP data collection. I therefore decided to conduct individual, telephone interviews due to the limited time that community pharmacists

and GPs were likely to have available, and the cost of travelling to each pilot site.

Individual, telephone interview still allowed me to obtain specific, in-depth information about the relationships and perceptions between the participating GPs and pharmacists. It also had the advantage of allowing the interview to be carried out in a more informal setting than a focus group.

5.10 Ethics

As this were a multi-centre study, an application for ethical approval was required from a Multi-Centre Research Ethic Committee (MREC). Ethics approval was granted from the Scottish MREC in December 2001. Subsequently, the nine Local Research Ethic Committees (LREC) gave consent during February to June 2002. Professor Christine Bond (the main grant holder and research project manager for the CPMMP) based at the University of Aberdeen submitted all ethics applications.

5.11 Setting and participants

All data was collected from pharmacists and GPs participating in the CPMMP. Sixty four community pharmacists and thirty seven GP practices (164 GPs) participated in the project. Data collection for pharmacists in the pilot phase of the project was only obtained from two of the pilot sites (Nantwich and Lichfield). This was due to pharmacists having completed medication reviews in these two sites first, and the time constraints that were dictated that data was required for the wider project to be collected as quickly as possible. In the main data collection period, pharmacist and GP data was collected in all nine pilot sites.

5.12 Pharmacist pilot data collection

Qualitative, semi-structured interviews (for interview guide see Appendix 2) were carried out with five community pharmacists. Pharmacists were approached for interview once they had completed at least one patient medication review during the pilot phase of the project. All pharmacists were interviewed in their work place and all worked for chain pharmacies. Interviews were taped-recorded (after gaining consent) and transcribed so emerging themes could be reported. Interviews lasted approximately 40-50 minutes. The purpose of the interviews was to identify key emerging themes to help inform the question schedule to be used in the main data collection.

5.13 Main data collection - focus groups with community pharmacists

In the main phase of the project, focus groups were conducted in each pilot site (with the exception of Southwark), during the first four months of the intervention period. These were arranged in a pilot site once the majority of pharmacists had conducted at least one patient medication review, either in the pilot or main phase of the project.

All pharmacists participating in the project were contacted via telephone to invite them to the focus group (for numbers of pharmacists contacted see Table 6.). This allowed me to explain the purpose of holding a focus group, find out how many medication reviews the pharmacist had conducted, discuss convenient dates and times, and establish whether the pharmacist would be willing to attend. A confirmation letter was then sent out to all pharmacists who had stated they would be willing to attend (see Appendix 3). For those pharmacists unable to be contacted via telephone, an

invitation letter was sent to them informing them of the purpose and details of the focus group (see Appendix 4). Where possible, all pharmacists (unless they had notified me that they were unable to attend) were contacted again prior to the focus group as a reminder and to double check attendance.

All focus groups were held as early evening meetings, with food and refreshments provided. A question schedule was used at each focus group (for question schedule see Appendix 5) and two researchers attended all but one focus group. This allowed one researcher (myself) to concentrate on guiding the discussion and encourage passive participants to interact, whilst the second researcher concentrated on making observational notes of the meeting. Once the focus groups had finished, the two researchers discussed the main themes to emerge from the focus groups. All focus groups were taped (after gaining verbal consent from the participating pharmacists) and subsequently transcribed. They lasted between 60-90 minutes.

5.13.1 Southwark pilot site

A focus group was not held in the Southwark pilot site, as the patient response rate in this area was low, with only three pharmacists having the opportunity to conduct medication reviews with patients. It was therefore impractical and expensive to conduct this type of interview. To obtain feedback all three pharmacists were contacted to see if they would be willing to conduct an individual interview (either face-to-face or via telephone) at a time convenient to them. Two pharmacists agreed to be interviewed and stated that telephone interviews would be the most convenient method. Both interviews were conducted during the day, at the

pharmacist's workplace. A question schedule was used at each interview and both interviews were taped (after gaining consent from the pharmacist) and subsequently transcribed (for interview schedule see Appendix 6). Interviews lasted between 20-30 minutes.

Table 6. The Number of Pharmacists Invited to the Focus Groups, the Number Which Stated They Were Willing to Attend, and the Number of Pharmacists, Who Actually Attended.

Pilot Site	Number of Pharmacists invited to the Focus Group	Number of Pharmacists willing to attend the Focus Group	Number of Pharmacists actually attending the Focus Group
Lichfield	11	11	7
Nantwich	7	5	5
Newcastle - Upon - Tyne	9	7	6
Poole	4	4	3
Portsmouth	4	4	3
Salford	11	7	2
Shipley & Baildon	8	6	3
Walsall	8	5	4

* Details for Southwark are not included, as a focus group was not conducted in this pilot site.

5.14 Main data collection - follow-up semi-structured interviews with community pharmacists

In order to follow-up and assess the views of community pharmacists participating in the project, a series of one-to-one, semi-structured telephone interviews were conducted. Interviews were conducted with a sample of twenty-eight participating pharmacists at the end of the twelve-

month intervention period. Telephone interviews were chosen because of the limited time that community pharmacists were likely to have available and the cost of travelling to each pilot site.

A purposive sample of pharmacists was drawn from the sixty-one community pharmacists remaining in the project. The aim was to interview three to four community pharmacists from each pilot site. Pharmacists that had attended the focus groups conducted at the beginning of the intervention period were initially contacted by telephone to see if they would be willing to provide feedback. In pilot sites where more than four pharmacists had attended the focus group, pharmacists were chosen so there was a mixture of pharmacists working for independent and multiple chain pharmacies. Likewise, pharmacists were only asked to provide feedback if they had carried out a patient medication review.

There were few recruitment difficulties encountered except in Southwark (see Table 7.). This was due to a low number of participating pharmacists in this pilot site, which was further exacerbated by one pharmacist going on maternity leave and one pharmacist refusing to provide feedback as they were too busy. Two pharmacists from one other pilot site also refused to be interviewed because they were too busy.

Interviews usually occurred during the pharmacist's lunch hour and at their workplace, although several interviews occurred at the pharmacist's home during the evening. A question schedule was used at each interview (for interview schedule see Appendix 7) and all interviews were taped (after obtaining verbal consent from the participating pharmacist) and the full interview transcribed. Interviews lasted between twenty to thirty minutes.

Table 7. Number of Community Pharmacists Interviews by Pilot Site

Pilot Site	Number of Community Pharmacists Interviewed
Lichfield	3
Nantwich	3
Newcastle-Upon-Tyne	4
Poole	3
Portsmouth	3
Salford	4
Shipleigh & Baildon	3
Southwark	1
Walsall	4

5.15 Semi-structured interviews with GPs

A series of one-to-one, semi structured telephone interviews were conducted with a sample of twenty-one GPs during months six to twelve of the intervention period. Six months into the intervention period all participating GP practices were contacted via their practice managers requesting feedback from GPs. The intention was to interview two to five GPs from each pilot site.

Participating GP practices were contacted initially by letter to their practice managers (see Appendix 8). The letter asked them to inform their GPs that they might be contacted and asked to volunteer to provide feedback (via a telephone interview) about being involved in a MMS. Letters were sent six months into the intervention period so the GPs would have had some experience of receiving recommendations from the community pharmacist.

Follow-up telephone calls were then made to all the practice managers two to three weeks after they had received the letter, to confirm whether GPs within their practice would be willing to be interviewed. In nearly all cases the practice managers identified the lead GP involved in the project as the GP to provide feedback from that practice. Interview times were either arranged through the practice manager or by contacting the GP directly, at a time convenient to the GP. Both practice managers and GPs were informed the interviews would take approximately twenty minutes to complete. Table 8. shows the number of GPs willing to be interviewed, the number of GPs unable to be contacted, and those refusing to be interviewed.

A question schedule was used at each interview (for question schedule see Appendix 9). As the data was obtained from the semi-structured interviews the transcripts were reviewed to allow refinement of the data and pursue emerging themes. As a consequence the question schedule was refined (see Appendix 10) for subsequent interviews. All but two of the interviews were taped (after gaining verbal consent from the participating GP) and subsequently transcribed.

Table 8. Number of GPs Interviewed

Pilot Site	Number of participating GPs	Number of GPs unable to be contacted	Number of GPs refusing to be interviewed	Number of GPs interviewed**
Lichfield	28 GPs (5 GP Practices)	7 GPs (1 Practice)	14 GPs (2 GP Practices)	2 GPs (2 GP Practices)
Nantwich	6 GPs (2 GP Practices)	N/A	N/A	4 GPs (1 Practice)
Newcastle-Upon -Tyne	29 GPs (5 GP Practices)	2 GPs (2 GP Practices)	N/A	3 GPs (3 GP Practices)
Poole	6 GPs (2 GP Practices)	N/A	N/A	2 GPs (2 GP Practices)
Portsmouth	22 GPs (6 GP Practices)	1 GP (1 Practice)	10 GPs (2 Practices)	3 GPs (3 GP Practices)
Salford	9 GPs (4 GP Practices)	N/A	3 GPs (2 GP Practices)	2 GPs (2 GP Practices)
Shipleigh & Baildon	25 GPs (5 GP Practices)	3 GPs (3 Practices)	N/A	2 GPs* (2 GP Practices)
Southwark	15 GPs (3 GP Practices)	1 GP (1 Practice)	N/A	2 GPs (2 GP Practices)
Walsall	23 GPs (5 GP Practices)	2 GPs (2 Practices)	2 GPs (2 GP Practices)	1 GP (1 GP Practice)

*No formal interview was carried out to provide feedback with one GP

** Usually only one lead GP was identified in a practice that was willing to be interviewed, therefore the other GPs within that practice were not approached to carry out an interview.

5.16 Data analysis and validation

In its broad outline, the Grounded Theory approach (Glaser and Strauss, 1967) has been used in the project to conduct and analyse data. I hoped this approach would allow me to extend and broaden any emerging theories regarding the relationships and attitudinal aspects between community pharmacists and GPs, and how these may have influenced community pharmacists from conducting a MMS.

However, practical difficulties were experienced whilst trying to carry out a genuine Grounded Theory analysis. This mainly centered on time constraints in collecting the pharmacist and GP data, as it proved difficult to get interviews conducted and transcribed and to start conceptualising the data simultaneously. Likewise, due to time constraints and difficulties recruiting participants (particularly GPs), I was unable to continue interviewing participants until theoretical saturation occurred. I also acknowledge that due to this piece of research having a specific focus, there was sometimes a tendency to focus on data that related to my research questions rather than take a completely inductive approach to the data analysis. A description of how the data was analysed is now detailed.

Interviews and focus groups were taped and the full interview transcripts transcribed. As previously stated, due to the practical difficulties experienced surrounding the collection of the data, it was not always possible to transcribe the data and then examine it immediately following data collection. Generally, the tape recordings of the interviews or focus groups (rather than the full transcripts) were initially reviewed to provide an overview of their content. This allowed me to gain familiarity with the data and to pursue emerging themes for subsequent interviews or focus

groups. As the interviews and focus groups were transcribed, the transcripts were then reviewed in greater detail to allow refinement of the data. This process involved looking at patterns of responses and linking them together using key words and concepts identified in the transcriptions.

To improve the consistency and reliability of the data analyses all the transcripts were coded separately by three researches (they were coded by both my supervisors and myself). To avoid the potential difficulties of three people trying to code data within a project, a basic coding system was then devised through discussion to allow an initial coding framework for the pharmacist and GP data. Key words and phrases were coded to capture frequently expressed concepts in the data and grouped into categories that resulted in recurrent themes. The qualitative computer package, NVivo was used to assist in the analysis of the focus group data, due to the large amount of data generated from them. NVivo was not used in the analyses of semi-structured interviews as there was less data generated.

These data were further analysed by one of my supervisors and myself to refine and consolidate the emerging themes. This process involved scrutinising the data for patterns and inconsistencies, similarities and differences in pharmacists' and GPs' views and perceptions of each other.

All pharmacists and GPs were assigned an individual code to protect their identity. Sections of the transcripts have been included in the results sections (see Chapter 6, 7, 8) to illustrate the key themes identified. I have attempted to give 100% of views through the use of themes and quotes. However, this at times has been difficult particularly with the pharmacist focus group data (these results are presented in Chapter 6), as despite

encouragement from the facilitators not all participants expressed their views. In order to support the themes identified I have used 'quasi-statistics' to help the reader gain some perspective on the data reported.

5.17 Summary

In this chapter an overview of qualitative research and the Grounded Theory approach of analysing qualitative data have been given, along with strengths and criticisms of their use within research. In the later part of this chapter I have aimed to provide the reader with the theory and epistemological orientation of the research, along with justifications on why qualitative, semi-structured interviews and focus groups were chosen as the evaluation methodology. Whilst I have alluded to some of the difficulties encountered using focus groups and semi-structured interviews, a more in-depth discussion of the difficulties and limitations of my methodology (along with being part of a larger research project) will be provided in Chapter 9 of the thesis.

6. COMMUNITY PHARMACISTS' INITIAL EXPERIENCES OF UNDERTAKING COLLABORATIVE WORK WITH GPs

6.1 Introduction

This chapter presents data from eight focus groups and two individual telephone interviews, conducted with community pharmacists during the first four months of the MMS. The focus groups were conducted between January to May 2003. Thirty-three pharmacists (20 female and 13 male) took part in the focus groups, and two pharmacists (2 female) completed a telephone interview to provide feedback. The number of patient consultations completed by individual pharmacists varied; with up to seventeen consultations being carried out by several pharmacists, and six pharmacists having completed no patient consultations at the time of the focus groups being conducted.

The data presented in the first part of this chapter focuses on the working relationship between community pharmacists and GPs prior to, and during the initial few months of the MMS commencing, establishing how community pharmacists thought GPs currently perceived them. Also explored were the community pharmacists' experiences and views about undertaking a medicines management role, establishing any potential and actual barriers which could limit them from doing this. The second half of this chapter concentrates on these data.

Where possible I have used numbers to help quantify and support the generalisations that I have reported, to give the reader some sense of perspective of the data. However, sometimes not all pharmacists expressed views about the MMS, despite encouragement from the facilitators. This has made it difficult at times to report the overall views of the pharmacists. The key themes are reported in the following sections.

6.2 Community pharmacists' current working relationship with GPs

Community pharmacists were asked to provide feedback about their working relationship with GPs, prior to the MMS commencing. Twenty five pharmacists stated they had a good working relationship with their local GPs, although their contact with them was often limited and usually conducted via the telephone. Pharmacists stated they rarely had face-to-face discussions with GPs over medication issues, due to the time constraints on both professions.

"Well I don't see them that much, I mean they are busy people they don't... I never see them face to face very often." (P25/FG5)

Pharmacists were also encouraged to talk about whether they had any concerns or issues about having more collaboration with their local GPs. Three pharmacists were dealing with GP practices in the project which were not local, so there was no prior working relationship. There were concerns held by four pharmacists that undertaking this type of service could be more difficult if the pharmacist and GP did not have an established relationship in place, as it would be difficult to liaise with

GPs. Two other pharmacists also acknowledged that if they already knew the GP, it was easier to liaise with them and build on existing relationships. However, one pharmacist believed the MMS was an opportunity to break down barriers between the two professions and gave the pharmacist an opportunity to speak to GPs regarding medication issues.

"I'm sort of lucky in a way that I work so closely with the GPs next door anyway, but there are a lot of pharmacists who don't. For them to have to liaise with GPs and things, if the study wasn't there, it would have actually been a little more difficult. So I suppose the study has actually helped to break barriers." (P34/TI1)

It was also thought that difficulties could arise if the GP practice was not situated near the pharmacy, as communication between the two professions would be more difficult.

"If you want to confirm something and speak with the doctor face-to-face, then face-to-face is very difficult if it's 3 miles down the road!" (P03/FG1)

However, two pharmacists stated that the locality of the GP practice was not a concern, as currently their local GP practices were not located near them, so communication was always conducted via the telephone.

Four pharmacists stated they were concerned at having to see the GP face-to-face and potentially having to challenge their prescribing decisions. This was largely due to the pharmacists stating they lacked the confidence to do this, even though many of them believed they had

a good foundation of CHD knowledge. To circumvent these concerns pharmacists admitted they were using the practice pharmacist to liaise with the GP on their behalf.

"No, I'm always a bit apprehensive about sort of face-to-face with the GP. It hasn't arisen but because I always go through, well I have gone through my own practice pharmacist at the minute." (P13/FG3)

One pharmacist stated that unless a pharmacist knew how to speak with GPs in a confident manner and not be fearful of them, it was irrelevant whether they had good pharmaceutical knowledge as they would not instill confidence in the GP. This pharmacist believed younger pharmacists now received training at university on how to talk to doctors effectively. They believed speaking to GPs was largely a fear held by the 'older' generation of practising community pharmacists.

"I think the new ones coming out of University already have been trained to do it and it's just the older generation that needs to go through learning how perhaps to talk to GPs and things and not see them as gods." (P34/TI1)

Despite these concerns reported, nine pharmacists stated they had no concerns liaising with GPs as they currently worked in GP practices, or were used to forging relationships with trainee GPs in their local practice. Pharmacists acknowledged that relationships had to be built from both sides and GPs were often responsive to suggestions, it was a case of finding the 'right time' to speak with them, for example, speaking with the GP when they were not too busy or preoccupied with other tasks.

"I mean relationships are what we make them from both sides. Of course, the practice where I am they get registrars in all the time and they tend to be quite, you know, sort of interested in what we have to say and can be slightly difficult people to handle because they feel they're on trial anyhow. But I'm old enough to be their father most of the time so I don't get too much problem." (P28/FG7)

Seven pharmacists saw this project as an opportunity to have a closer working relationship with GPs within their area. They hoped the MMS would allow GPs to see community pharmacists using their clinical skills and allow inter-professional working to develop, which they believed was currently missing. One pharmacist had been motivated to join the project in order to improve their relationship with their local GP and enable them to have a mentor for pharmacist supplementary prescribing.

"I just thought it would be a good opportunity to work with doctors and get recognised in the city as a professional really." (P32/FG8)

Whilst the majority of the pharmacists had a good relationship with their local GPs, these data suggest that some pharmacists had concerns liaising face-to-face with GPs, and viewed the GP as having the most authority in the relationship. The relationships described by the pharmacists can be compared to the literature on the nurse-physician relationship (Stein, 1967; Bond et al, 1987; Svensson, 1996; Allen, 1997; Willis et al, 2000; Snelgrove and Hughes, 2000; Blue and Fitzgerald, 2002; Charles-Jones et al, 2003). Traditionally, nurses have been seen to play a largely subservient and supportive role to the

physicians. Whilst a number of studies have looked at the effect of redistributing medical to work to nurses (Bond et al, 1987; Svensson, 1996; Allen, 1997; Willis et al, 2000; Snelgrove and Hughes, 2000; Blue and Fitzgerald, 2002; Charles-Jones et al, 2003), the majority of these studies suggested the nursing-physician relationship had not significantly changed.

6.3 Working relationship with GPs during the MMS

Pharmacists were then asked to comment on whether being involved in the MMS had so far made any impact on their existing working relationship with GPs. Pharmacists gave a mixed response, with seven pharmacists holding concerns that the participating GPs were not taking the MMS very seriously, resulting in no impact on relationship building.

"I think we were led to believe that the GPs were really kind of up for all this, but I'm beginning to feel very disillusioned about it now."

(P18/FG6)

Three pharmacists were ambivalent about whether the MMS had so far improved the relationships between them and their local GPs, due to the time delays which had occurred between the launch and delivery of the MMS. On the other hand, there were reports from six pharmacists that their GPs had responded to their clinical recommendations and they viewed the collaboration as a positive impact on their working relationship.

"Excellent. I went to two GPs and it just so happened there was four (patients) from each and I actually made one appointment after I'd done

the whole lot (consultations) to go through the forms and it all worked out very well." (P28/FG7)

Six pharmacists were unable to comment on this subject, due to them not having completed any patient consultations. The remaining pharmacists did not clarify their views despite encouragement from the facilitators. However, the data suggests that the MMS had so far had little or no impact on working relationship for some community pharmacists, mainly due to lack of GP engagement in the project.

6.4 How community pharmacists believe GPs perceive them

One of the objectives of this thesis was to determine how community pharmacists thought GPs currently perceived them, and whether the MMS had altered these perceptions. Hughes and McCann (2003) state that pharmacists are conscious of a hierarchical system between themselves and GPs, with GPs seeing community pharmacists as subordinate to them in professional terms. During the focus groups, whilst pharmacists discussed why GPs had not responded to their clinical recommendations, or did not welcome extra collaboration with them, some pharmacists stated that they believed GPs saw them as 'shopkeepers' rather than health professionals. Pharmacists stated that this resulted in GPs not viewing them as having a similar professional status. The following quotes illustrate this.

"They sort of think...they still think that a pharmacist is a class down, like you know you think of a shopkeeper." (P31/FG8)

"Yes we work as a team but I think they still think they are the upper class; we are the lower class you know." (P33/FG8)

Two pharmacists also believed that GPs held the attitude that community pharmacists should 'dispense medication', rather than having a clinical input into what medication should be prescribed.

"I get the feeling that their attitude is that we just dispense the tablets and they prescribe it." (P23/FG5)

As a consequence, GPs were not used to having their clinical decisions questioned and three pharmacists believed this might have accounted for some of the GPs not following the community pharmacists' recommendations over patients' medication regimens in this project.

"Because they're so not used to having their judgment questioned, purely and simply. Not by people that they perceive as being shopkeepers." (P19/FG4)

In addition, five pharmacists thought that GPs did not have a clear understanding of their current role. This was particularly pertinent regarding patient confidentiality. Pharmacists were frustrated and surprised by both the GPs lack of awareness of their current role (particularly when their role involved dealing with confidential, patient issues on a daily basis) and also their lack of trust regarding confidentiality issues. Pharmacists in one pilot site commented that a GP practice had withdrawn from the project, as they did not want pharmacists looking at patients' medical notes. The following quotes illustrate this.

"But the confidentiality issue was surfaced again and again and again at that meeting wasn't it? They were absolutely hitting the whole time, as though we were going to sell it to the News of the World or something they just kept all the time coming back to confidentiality....It was almost as though we were just somebody in the street, you know" (P21/FG5)

"They don't realise that what we do every day is confidential, isn't it?"
(P24/FG5)

However, four pharmacists stated their local GPs had increasingly started to ask their opinions regarding medication issues on a day-to-day basis.

"I think most of them are beginning to see us as sort of clinical professionals and the majority of them feel quite at ease to phone up and ask for help and advice." (P34/TI1)

As a result, these pharmacists acknowledged that GPs' attitudes were starting to change and they were now beginning to view the community pharmacist as a fellow clinical professional.

In a similar vein, pharmacists participating in the project hoped as GPs started to have more interaction with community pharmacists and gained confidence in the recommendations they were making, this would help change the GP's perception of them, from that of a 'shopkeeper', to that of a health professional.

The data suggests that some pharmacists believed that GPs viewed them as a shopkeeper, or had concerns surrounding whether community pharmacists could uphold patient confidentiality. In both instances, some community pharmacists believed these perceptions could have accounted for why GPs had either not actioned their clinical recommendations or did not want to undertake collaborative work with them.

6.5 General assessment of the MMS

To assess the attitudes and experiences of community pharmacists undertaking a MMS, in each of the focus groups and interviews pharmacists were asked to provide a general assessment of their experience of being involved in the MMS. Pharmacists were also encouraged to discuss why they had wanted to become involved in the project, what they wished to achieve from taking part in the MMS, along with their experiences conducting medication reviews, stating the benefits and difficulties so far encountered by providing this new service.

Whilst all pharmacists saw their involvement in the MMS as a positive experience, almost all of them thought they could not have participated without receiving clinical training. Only two pharmacists stated they were confident enough to do the MMS without clinical training and both of these had completed a clinical diploma.

"No we definitely needed extra training really, more research and reading up of things, to feel confident really and able to do it you need the research." (P08/FG2)

The most significant benefit cited for being involved in the MMS was the opportunity to have a greater input into patient care. More specifically, it had allowed pharmacists the chance to build better relationship with patients and gave them the opportunity to use their clinical knowledge, while in turn increasing their job satisfaction.

"It certainly is an extension of our role and a very worthwhile one, actually using our clinical skills for a change." (P16/FG4)

In addition, six pharmacists identified a desire for greater job satisfaction and hoped that this MMS would allow them to move away from the community pharmacist's traditional role of dispensing medication to a more clinical approach. Some pharmacists reported that they currently did not have fulfillment in their current day-to day role, particularly surrounding clinical work. The following quotes illustrate this theme.

"What was the personal motivation? There has to be more to life in community pharmacy than checking scripts." (P28/FG7)

"Satisfaction from – well yes, job satisfaction. Fulfilment from clinical work, which is something which has been missing from community practice – certainly from the community practice that I've had always." (P19/FG4)

Six pharmacists had seen the MMS as an opportunity to improve their clinical skills and knowledge regarding CHD. Three pharmacists reported

their clinical knowledge had diminished in recent years and the project was both a chance and a challenge to develop this.

Overall, participants believed that community pharmacists needed to continue developing their roles, particularly in light of the new pharmaceutical services contract.

"Because there is so much pressure to demonstrate that we can do more than just dispense, check and put in a bag. We have got to demonstrate that there are other services that we can offer. It's like the future of pharmacy and everything, rather than just a checker."

(P26/FG5)

This project was seen as an opportunity to have a greater clinical role and demonstrate that community pharmacists could undertake new roles and become more integrated into the primary healthcare team.

"I hope more people can leave the dispensing side and get like technicians in to do all the dispensing work. Then we can be used more as the primary care team as opposed to being an outsider." (P03/FG1)

The responses shown by the pharmacists suggest that currently they were not fulfilled by their current day-to-day role and hoped involvement in the MMS would allow them to have a greater clinical role into patient care, and become more integrated into the primary care team.

6.6 Motivation of community pharmacists

Despite the reasons given by pharmacists to participate in the MMS, a third of the pharmacists stated the reason for participation was due to obligation. When questioned further, pharmacists expanded by saying that although they were interested in participating in the project, the primary motivation had been obligation because it was being carried out within their area. This could suggest that these pharmacists were not fully committed to changing their role despite stating a number of potential opportunities that this new role could provide.

I thought it was a good opportunity to get involved. It is the way I would like to see things going, part of it and because it was in my area I felt obliged to do it, someone has to try it! (P01/FG1)

Pharmacists also offered possible explanations why some pharmacists in their area did not want to participate in the MMS. Identified factors included fear of undertaking a more clinical role and time issues.

"Possibly the ones who you know sort of have been chained to the dispensing bench for so long that they're probably frightened to come out." (P28/FG7)

"And of course there are some who probably think "Why should I? I'm doing eleven hours in the day" (P33/FG8)

Likewise, pharmacists expressed disappointment that fellow peers would not attempt to undertake new roles, particularly younger pharmacists that had received a greater amount of clinical training at university. However, it was acknowledged that pharmacists who did not want to undertake new roles were in the minority.

"I think the ones who don't want to get involved are probably a dying breed." (P28/FG7)

When pharmacists were asked if they would have participated in the MMS without receiving a financial incentive, three of the pharmacists specifically stated they would not have participated, as they were giving up their time and would lose money if they required a locum.

"As a company though or an owner you wouldn't want to do something that you weren't paid for because there's other jobs you could be doing, because obviously we're funding locums while we're doing this service so we'll be out of pocket with this." (P13/FG3)

Likewise, whilst thirteen pharmacists thought the fee they received for each patient consultation was adequate⁸, five pharmacists thought it was inadequate. These pharmacists argued when preparation and writing-up time, locum cover and follow-up interviews with the patients were taken into consideration the fee was small. However, they acknowledged as they gained more experience consultations would become easier.

⁸ Community pharmacists received a capitation payment of £60 per intervention patient. This payment included time preparing for the patient consultation, conducting the initial consultation, documenting recommendations and conducting any subsequent consultations that were required.

"But yes, I do feel it is expecting a bit much....I suppose the more you do, the quicker it does get, so perhaps if you are doing it regularly you will get to a stage where it is a reasonable remuneration." (P09/FG2)

Due to the payment not being sufficient, two pharmacists specifically stated they had no intention of carrying out follow-up interviews on all the patients.

"Because of that I'm only going to do follow ups with two actual interviews and I have sent a couple of compliance charts out through the post to people. But I still think I've probably put more effort in than some people would do for that payment, which I'm happy with because I'm interested." (P31/FG8)

There were also mixed views from employee pharmacists about the employers getting the payment rather than the individual pharmacist. The majority of pharmacists working for companies stated that they had got involved for the professional aspect; therefore the payment was not important. However, it was acknowledged that if this project went nationwide then pharmacists might be reluctant to provide this type of service if the employee received the payment.

"It didn't bother me but I would say 80% of pharmacists would expect to be reimbursed in some way for doing it." (P26/FG6)

Again, this potentially highlights that some pharmacists were not fully committed to changing their role if they were not going to be adequately reimbursed. Therefore despite pharmacists citing reasons for changing

their current role, remuneration and lack of motivation may be a barrier for some pharmacists to fully commit to undertaking a MMS.

6.7 Relationship with patients during the MMS

Having a greater input into patient care was cited as the greatest benefit of being involved in the MMS. Pharmacists were therefore asked to comment how the MMS had impacted on their relationship with patients and how their patient consultations had gone. Although twenty-five pharmacists believed they had a good existing relationship with their patients, it was acknowledged that their current workload prevented them from forging relationships with them. Pharmacists thought the MMS had given them the opportunity to get closer to patients. In turn, this had allowed patients to see community pharmacists in a different capacity, moving away from the 'supplier role' to a more clinical and informative role. Pharmacists also hoped as a result of the MMS patients would feel that they were having an interest taken in them rather than being seen as just a customer.

"Probably have a perception of more of a dispenser's role, you know typing of labels and filling the bottles and yes they can ask you questions and whatever but you know when you start explaining stuff to them, it's like your light comes on." (P29/FG7)

The remainder of the pharmacists stated they had been reviewing patients that usually did not use their pharmacy, so there was not an established relationship. Three pharmacists believed this type of service was more beneficial when you had an established relationship with

patients because patient issues could just be focused on, rather than having to spend time explaining a community pharmacist's role.

"Well the thing is where we are situated, I basically know all the faces that did come in and have known them for years, so there wasn't the problems you might have breaking a patient in, do you know what I mean? Like explaining the whole thing about your role and stuff like that. So it wasn't difficult but then I can see that there could be problems when you don't know a patient." (P34/T1)

Pharmacists also believed their confidence in dealing with patients and their clinical knowledge had improved as a result of being involved in the MMS. They stated they were now less intimidated and more authoritative when giving advice to patients.

"I've gained a lot of knowledge and a lot of confidence. I don't feel quite so intimidated at going sort of to patients and talking to them in the shop whereas before you'd think, oh am I saying the right thing, you know." (P13/FG3)

One pharmacist in particular, stated the confidence gained from the training had allowed them to develop their questioning skills on other people requesting advice in their pharmacy.

"I feel like I'm making a difference though. In that respect it's been good doing the project, because we've got the consultation area and the extra training, and it just gives me the confidence to do a bit more. I mean I sat the other day and took a lady's blood pressure and she'd had

her medication changed and it isn't something that I'd normally offer to do, but she was in a right state." (P10/FG3)

Pharmacists were then asked to provide feedback about their experiences in conducting patient medication reviews. All the pharmacists who had had the opportunity to conduct medication reviews reported that their patient consultations had gone well.

"I was up to now, happy with the way they've gone. I got quite a bit of feedback from people saying how much they'd enjoyed it and found it valuable and that sort of thing; we just don't have time to say this to our doctor. It's wonderful to be able to talk to people. I mean I've had four or five like that." (P21/FG5)

Pharmacists pointed out a further benefit of their consultations, in that it provided patients with the opportunity to talk to another health professional. This allowed patients to discuss medication issues which had been bothering them, which sometimes had not occurred with their GP.

"I think it's noticeable when you're talking to the patients that they tell you things that you suspect they have never told their doctor, not because they wouldn't tell the doctor perhaps, but perhaps because the situation in which they can tell the doctor has not occurred." (P25/FG5)

Pharmacists also noted that patients perceived their consultations quite differently to that of the GPs, notably as the pharmacist having less power, being less threatening and having more time to talk than the GP. There was a general agreement that patients were often more likely to

speaking to them about issues they would not broach with their GP. Pharmacists thought this was due to a variety of reasons. Firstly, patients often did not get the opportunity to discuss issues with their GP due to short GP consultations times. They also believed patients felt they could not bother the GP with issues that they deemed trivial because they did not want to waste the GP's time.

"The one patient I had, I think he must have said three or four times 'I don't want to bother the doctor but can I ask you?'" (P06/FG1)

Pharmacists also believed some patients did not worry about 'pleasing' a pharmacist regarding their medication, as they might with the GP. Again, if patients had issues with their medication but were worried about 'upsetting' their GP because they were not taking it then they had the opportunity to discuss these issues with another health professional.

"They're not trying to please us in the same way that perhaps they might be doing for the GPs. And we're not actually prescribing for them so it's not as if we're involved in that decision to the same extent. I'm not worried by that in the same way that the doctor would be. I'm worried about it from the compliance point of view but I don't feel as if I've been cheated out of something. I think it's important for a patient's decision; they have the opportunity to speak to somebody else, so that they can be more involved in their treatment than perhaps someone who can't do that. I think sometimes they take things because they're told to rather than because they understand the issues, because they've been involved in it. And maybe we can offer them that in the pharmacy." (P19/FG4)

The downside to patients feeling more relaxed towards the pharmacist often led to patients cancelling or not turning up for appointments. The data perhaps suggests that although patients welcomed the opportunity to discuss clinical issues that they would not normally broach with their GP, they did not always have the same respect for pharmacists as they did for GPs.

"They treat appointments with you, far more casual I think than they would with a doctor. They don't feel as bad when they're ringing up at the last minute saying I can't come and 'oh, I can come nine o'clock tomorrow." (P17/FG4)

Two pharmacists stated that carrying out medication reviews had given them an insight in the difficulties that a GP might face whilst carrying out patient consultations, due to time restrictions placed on them. As a result they could now empathise with their local GPs. Two pharmacists also feared carrying out this type of consultation service on a regular basis could make them more like GPs in terms of reducing a pharmacist's availability. This was seen to be detrimental because they would become less assessable to patients and pharmacists feared people would have to book appointments to see them if they took on too much.

"But the more of these things that we take on, the less available we are going to be. That's becoming a problem as people are having to book appointments." (P04/FG1)

Whilst the data suggests that community pharmacists thought the MMS advantageous for patients, the down side was that patients often did not

turn up for appointments. Pharmacists acknowledged that they would not cancel appointments with GPs on such a regular basis.

6.8 Community pharmacy Vs. GP practice as the setting for a MMS

As the majority of pharmacists at the time of the focus groups had completed medication reviews, pharmacists were asked whether a community pharmacy or a GP practice was the most appropriate setting to conduct a MMS. Three pharmacists believed that the community pharmacy was the most appropriate setting, as it was easier for patients to access and was less formal than a GP practice.

"We have the key position of being the most approachable part of the health service." (P02/FG1)

Four pharmacists had mixed views on whether the community pharmacy was the best setting and could see advantages and disadvantages for conducting them here. The advantages of having the service placed in the community pharmacy, was easier access for the patient and it offered the patient a choice. The disadvantage was that it was more difficult to build an effective relationship with the doctor and be included as part of the primary health care team when the pharmacist was providing a clinical service outside the GP practice.

"If we were in the surgeries offering this service, then we would be seen as being one of the doctor's team and therefore the strengths that 19's pointed out perhaps would not apply. Another reason for it happening in the community is that our access – the access that pharmacists have, as

far as patients are concerned is much better than if we were in a surgery. So that's another advantage. The disadvantage maybe of being in the community is that we don't have this – we don't have a relationship with the doctor, the trust of the doctor perhaps, that we could build on effectively within the surgery. And I think that's one advantage that the surgery may well have over the community. Which is better, the better model, I really don't know.” (P16/FG4)

Two pharmacists saw the service being conducted in a community pharmacy as a disadvantage as they believed it was unrealistic that they would be able to give patients an adequate amount of time when they came into the pharmacy on subsequent occasions. They believed this would send mixed messages to patients.

“But I know that being based at a surgery is always going to be an advantage than working in a shop, it is so difficult because you don't have the time. I know people can come in and you are accessible but when you are doing over 500 items a day; it's difficult to give people 5 minutes of time, let alone 10-20 minutes.” (P03/FG1)

Three pharmacists thought that it would be easier for practice pharmacists in the GP practice to conduct this type of service, although they acknowledged there was no reason why community pharmacists could not do medication reviews.

The responses given suggest that many pharmacists did not view the community pharmacy as the most appropriate setting for a MMS.

6.9 Identified barriers to community pharmacist's involvement in a MMS

After providing an initial assessment of their experiences undertaking a MMS, pharmacists were then asked to identify difficulties or barriers they had so far encountered.

6.9.1 Lack of GP engagement

The most significant, negative aspect of the MMS reported by the pharmacists was thought to be the lack of GP engagement with it. Pharmacists reported a lack of communication from some of the participating GPs concerning their clinical recommendations and whether these had been implemented. GPs' lack of interest in the MMS had been a problem encountered by seven pharmacists interviewed, this was particularly evident in one pilot site. The delay in responding to pharmacists' recommendations had caused problems for the pharmacists and they believed in several cases this had resulted in patients losing faith in them. The following quotes illustrate this.

"Yes, I mean I feel pretty strongly that GPs are basically just paying lip service to the project and I've had I think four intervention forms back, one where everything has just been ignored; others where the GP has said yes, he agrees with this, yes, he will action this and subsequently absolutely nothing has happened." (P15/FG4)

"I think I've had one alteration. I've had about eight or nine brought back. And others have said yes, you know. Nothing's been actioned. There's one intervention that they have actioned." (P18/FG4)

As a consequence, four pharmacists stated that communicating information to patients was difficult because they did not know if GPs would follow their advice.

"I think the main problem is if you are going to make an intervention, it's how to communicate that to the patient without saying 'This will happen!' because you don't want to tell them in case the GP decides that it won't! I think that's the bit where you feel a bit ineffective really."

(P02/FG1)

Pharmacists in one pilot area reported that they had been suggesting interventions which had been ignored by the participating GPs. In one particular case, the patient had died and this raised an issue of liability for the pharmacist if their advice was ignored. The following quote illustrates this.

"And one particular case, the patient has died and I made recommendations because the guy had a systolic of over 180 and cholesterol of 6.4. I made recommendations to introduce a statin and to introduce amlodipine and the GP agreed but did nothing about it. A few weeks later the guy had a stroke the GP subsequently introduced amlodipine but not a statin, and I think about three weeks ago the patient died. And I just don't think GPs have, you know, taken it on board." (P15/FG4)

As a consequence, pharmacists in this particular pilot site were very concerned at making clinical recommendations when they had no influence in their enforcement.

Two pharmacists also reported that practice nurses had been allocated the task of dealing with the interventions, making it even harder to communicate with the GPs. This lack of engagement had caused the pharmacists to feel disheartened about the MMS and the role they could play in medication reviews.

"Yes, I just feel that, you know, I just feel as if it's – the impetus was just lost once the intervention form goes out." (P18/FG4)

Pharmacists thought the lack of engagement may have been due to GPs expecting their workload to be reduced and this had not been the case as they had received a lot of paperwork from the pharmacist.

"But I do wonder whether the GPs saw this as being a way of actually reducing their work load. And when it's come down to it, because of the selection of patients and all the paperwork they've had to do, it's actually been a lot more on them than they expected so it hasn't actually given them what they were expecting either." (P19/FG4)

Pharmacists believed GPs needed to commit time for meetings so recommendations could be discussed. However, it was acknowledged that this would be unlikely to happen because GPs saw themselves as already overworked and this would be an ongoing concern if the project was rolled out nationally.

"It's so difficult. I mean it's difficult enough to get to talk to them on the phone about somebody, to actually get a face to face meeting."

(P23/FG5)

At this early stage of the MMS, many community pharmacists had concerns around the lack of GP involvement in the MMS and response to their clinical recommendations. Pharmacists acknowledged that greater face-to-face communication was needed to discuss their recommendations but seemed resigned to the fact that this would not occur due to time pressures on the GP.

6.9.2 The extended role of the practice nurse

It became evident throughout the focus group that whilst pharmacists thought that GP were not supporting them to undertake a MMS they believed that nurses had been able to extend their role within the primary care setting. Their frustration centered on the fact that GPs had supported practice nurses to undertake new roles but they seemed reluctant to allow community pharmacists to do the same. The following quotes demonstrate this.

"But what annoys me is that nurses can prescribe and do this and that, and that really annoys me." (P32/FG8)

"I think what I find difficult to understand is that GPs seem very happy to off load as much work as they possibly can to the nurses but when it comes to the pharmacists....maybe it is this shopkeeper thing."
(P15/FG4)

Pharmacists believed the lack of support towards their role extension might have been due to them being outside of the GP's control. It was acknowledged that practice nurses based within the GP practice, usually worked to a protocol and were supervised by GPs to a much greater

degree than a community pharmacist. This observation is supported by literature which has explored the nurse/GP relationship in the primary care setting (Wiles, 1994; Willis et al, 1999; Charles-Jones et al, 2003). They concluded whilst there was often a constructive relationship between nurses and GPs, GPs delegated work to nurses that they did not want to undertake, for example, nurses could manage patients with 'minor ailments'. This allowed GPs to maintain their dominant position within the primary care team. The following quote illustrates this theme.

"We're outside of their control but the nurses are very firmly under their supervision aren't they? We're not; we're a bit of a loose cannon and we have a personal judgement and our slant is slightly different to the nurses." (P19/FG4)

Consequently, this group of community pharmacists thought GPs perceived them to be more of a threat than nurses when undertaking new roles. Community pharmacists recognised that GPs might be threatened by them questioning their clinical decisions regarding patients' medication, and rather than viewing it as 'collaborative team work' they would see it as being 'checked-up on'. The following quotes illustrate this.

"I think it's because they feel threatened (refers to GPs); its human nature isn't it? You are impinging on their territory and if you make a change and it's for the better the patient is going to say but the pharmacist said and it was changed and that makes him feel... it's tricky." (P34/TI1)

"They might feel their opinion is being challenged, that they are being checked upon, or whatever, because I suppose they are not used to it. It is a new thing for them really to have someone who is looking at the notes they have done themselves." (P09/FG2)

However, three pharmacists did not think GPs would be threatened by community pharmacists undertaking a medicines management role, as the pharmacist was only making a clinical suggestion and the GP still had the ultimate decision regarding a patient's treatment. These pharmacists concluded this was not an adequate explanation as to why they would not support them. It was acknowledged by two pharmacists that there would be a mixed response from GPs regarding community pharmacists undertaking a medicines management role, with some GPs simply refusing to accept community pharmacists undertaking an extended role.

"There are those GP's who accept this quickly and others who won't."
(P28/FG7)

Four pharmacists feared that as nurses and community pharmacists started to extend their role then they would be in competition with each other. A particular fear was practice nurses were cheaper to employ than community pharmacists. However, two pharmacists disagreed with this and stated they believed pharmacists had a more extensive knowledge base so they could offer a broader range of skills than a specialist nurse.

"I actually think we have a lot to offer because if you have got a specialist, a nurse specialist, they are very good, very well trained but

are you going to employ a nurse specialist for every area? Or are you going to work with someone like a pharmacist who has a broad base and the ability across the board. So I think we have a lot to offer."

(P02/FG1)

One pharmacist also believed that community pharmacists should be focusing on a different patient population to the ones specialist nurses were reviewing, primarily on patients that did not need to be seen in the GP practice.

These data suggest that many community pharmacists thought they were in competition with nurses and were anxious that nurses had taken roles they could potentially undertake. This fear was further fuelled as pharmacists believed that GPs were more willing to support nurse role extension. These pharmacists postulated this was because nurses posed less of a threat to GPs' autonomy.

6.9.3 Patient selection

There were a number of concerns stated by the pharmacists regarding the patients selected to be involved in the MMS. The first problem identified, was the patients seen were often very motivated, well and required little pharmaceutical input. As a consequence, pharmacists reported they had made few clinical and lifestyle interventions and had just reinforced information. There were also few examples of the pharmacist having an impact on a patient's compliance as most pharmacists reported that the majority of patients they reviewed were compliant with their medication.

"As I have said so far all the ones I've seen are already on you know like the health centre I work with is implementing the NSF recommendations for coronary heart disease so all of them were already on a statin, aspirin, beta-blocker what have you." (P27/FG6)

This problem was further precipitated as pharmacists stated that only motivated GP practices had taken part in this project and these practices were likely to have implemented NSF guidelines for CHD. It was also recognised that if a specialist cardiologist was treating a patient then GPs were usually reluctant to alter medication, again making it difficult for the pharmacist to have any clinical input.

Although pharmacists thought that consultations had probably been beneficial to these patients, there was a general belief that the review process would have been more beneficial for patients who were known to have significant medication and lifestyle issues in need of addressing. Pharmacists therefore believed more scrutiny should have gone into the patient selection. The following quotes illustrate this.

"If I was asking to select patients to come in and have a half hour chat, they didn't match the group that volunteered to come in and have the half hour chat." (P31/FG8)

"The only concern, was that a lot of the patients because they've been chosen at random, they wouldn't necessarily have been the patients that you would see if a doctor had referred them to you. So a lot of the time you're seeing the patients, you will discuss all their medication and there might not be anything to refer. And I wonder how beneficial that is really. (P12/FG3)

Pharmacists believed if their local knowledge had been utilised in selecting appropriate patients, then this would have helped improve the patient's response rate, which was exceptionally low in several of the pilot sites.

"I think if the community pharmacist's local knowledge of the area had been utilised too, you know for recruitment then it might have produced a higher response rate. So that we virtually told which patients they were. So when they came in we could have said it's only going to be a study we are going to look at you and help look after you." (P34/TI1)

One pharmacist also suggested that the CHD nurses and GPs could have been more proactive in selecting patients, by speaking with patients who had medication issues and recommending that they went to see the community pharmacist for a discussion. They believed if they had endorsed the project more, patients would have been more willing to participate.

Three pharmacists believed that patients had agreed to take part in the project without fully understanding the implications. This had resulted in patients cancelling appointments at the last minute, which in turn had caused problems if the pharmacist had arranged locum cover. This again suggests that the pharmacist and patient relationship is quite different to that of the physician/patient relationship, notably the patients having less respect for the community pharmacist.

"Like one lady said to me 'I don't know if I want to see you today!'"
(P32/FG8)

These responses suggest that community pharmacists were frustrated that they had been unable to review patients that had a genuine need for a medication review. If they had been able to have had a greater input into patient selection, or if GPs and nurses had encouraged patients with medication issues to see the pharmacist this may have helped to address this issue.

Three pharmacists in one pilot site stated that they believed GP practices had examined and reviewed patient's medication as the project was commencing. By the time the pharmacist had reviewed the patient's treatment, their treatment complied with NSF standards, resulting in the pharmacist having little input into a patient's medication regimen.

"We're starting to see at the main phase now that, you know, sort of patients' notes coming through and things have been actioned to sort of fall in with the sort of national service framework so where someone has a sort of raised cholesterol they've been suddenly started on a statin."

(P15/FG4)

"I've had a couple of people started on statins before we'd got to them. And they were crying out for a statin but they'd been without one for goodness knows how long." (P18/FG4)

These data perhaps suggest that some GPs were threatened by the prospect of community pharmacists reviewing their patient prescribing and therefore took measures to prevent the pharmacist from identifying any issues with their CHD patients.

Pharmacists also reported that if the GP practice employed a practice pharmacist or a CHD nurse they had usually gone through the CHD registers.

"You see I think that will make a vast difference if they are from a practice where they already get pharmaceutical input. Where they have already gone through the registers, you are going to have a different base to it." (P02/FG1)

Consequently, participating community pharmacists only made minor interventions as the CHD patients were already appropriately managed.

6.9.4 Lack of access to patients' medical records

As reported in Chapter 3, participating pharmacists received a set of medical information about the patients that were to receive a medication review. Pharmacists were therefore asked to provide feedback on the audit forms they received, which provided pharmacists with the clinical data on the patient. The general consensus was that there was insufficient information on the audit forms and this made it difficult (at times) to carry out a full medication review. Information such as urea and electrolytes, creatinine, liver function tests, past drug history and other diagnosed illnesses of the patient in some cases were necessary and were sometimes imperative to know, in order to make an appropriate assessment.

"You do need a bit more info because otherwise you come across as stupid." (P10/FG3)

Five pharmacists reported that the lack of information and access to patients' medical notes had been a particular problem and the medication review had been much more difficult as a result. There were also individual cases of inaccurate or out of date data given to seven pharmacists. The following quotes illustrate this theme.

"I can't remember the details now but I had one chap he told me he'd had an angioplasty and a bypass graph and neither of them were down I don't think on the form. I've had one or two where the actual diagnoses were not all that accurate." (P25/FG5)

"I've had several occasions where tablets are being taken actually in the cardiovascular heart disease area and they've not been down, so I lost a bit of confidence with the data." (P21/FG5)

Two pharmacists thought that for an effective medicines management consultation to be carried out then shared computerised medical records needed to be in operation, so that clinical information could be accessed between the GP practice and the community pharmacy. Eight pharmacists argued that carrying out effective medication reviews would have been facilitated by them obtaining clinical data from the medical notes.

"I suppose you could argue that it should be us getting the data in a way. Alright I'm not talking like I want to take on loads and loads more work, I just mean if you're going to do it, if you were looking at the data and extracting it you would know what you were looking for and what you wanted to know, whereas now you're looking at data that somebody

else has extracted and hoping that it's what you want and that its complete." (P25/FG5)

Four pharmacists currently reported that they were using patients' medical notes in addition to the audit forms⁹. One pharmacist went to the GP practice to obtain relevant additional information, whilst the three other pharmacists had contacted the practice pharmacist to obtain more clinical information on their behalf.

"I organised to go into the GP surgery and look up the notes and stuff like that on the same day. So, like, in the morning I went in, had a look at everything (refers to the medical notes), I already had their permission I would do that, start the interviews lunchtime, went in again to look at the rest and then when the interviews finished, finished off the paperwork and looked up anything else." (P34/TI1)

However, two pharmacists stated that being located outside of the GP practice and lack of time were currently barriers for community pharmacists to have access to patient medical records.

"Yes, access is probably a problem. I can see if I had access to the GP's copy then I could see if like they had all their tests done then, but to do that is very difficult being an outside business person. To walk into a GP's surgery and have full access to full confidential things. So I think there is a huge barrier there and I think that can only be overcome if you are part of the GP surgery basically. Unless they give you 'titbits' of

⁹ The project protocol permitted community pharmacists to access patients' medical records if they required further clinical information for a patient.

results and things, just when you ask for them so it's much better to have it in front of you than to ask for it at a later date." (P03/FG1)

The data suggests that not having access to patients' full medical records had been a barrier for some pharmacists to conduct a full medication review with patients. However, despite recognising this as a barrier only four pharmacists had attempted to obtain the extra clinical data that they required from patients' medical records.

6.9.5 Organisational problems

A further problem identified by pharmacists was organising a time to conduct patient medication reviews. The first issue had centred on trying to organise patient interviews to either coincide with locums, or when there were two pharmacists in the pharmacy. This had proved too difficult for six pharmacists and had therefore resulted in them carrying out patient interviews on their days off.

"Because it's so difficult to coincide what the patient can do with what the locum can do. I mean you can book a locum and then get in touch with the patient and they can't come, and vice versa. So it just you know, it made it easier...it just makes it easier to do on my day off, you know." (P18/FG4)

Another problem identified was finding enough time in the pharmacist's workday to fit in patient interviews. Eight pharmacists reported that they were either conducting patient consultations on their days off or in their lunch hour, as this was the most convenient time to carry them out. One pharmacist reported that whilst they conducted patient consultations

during working hours all preparation and writing up was carried out at home as they did not have time to do it during the day.

"Yes time is the main thing, trying to fit it all in with your normal routine really when you have got so many other things to do." (P08/FG2)

Three pharmacists from one pilot site also commented that attending training sessions had been difficult due to childcare issues or getting locum cover. This had resulted in two of their colleagues withdrawing from the project because they were unable to attend training sessions. Again, it was stressed that if this project was to roll out nationally this issue would need to be addressed so that training courses were run more frequently, and in more locations so pharmacists had the opportunity to attend them.

6.9.6 Inadequate consultation areas

Community pharmacists were only able to participate in the MMS, if their pharmacies had a designated confidential area to conduct medication reviews with patients. However, four pharmacists commented that they had inappropriate consultation areas to conduct patient medication reviews. Two pharmacists had used their office as a consultation area. This had proved both difficult and time consuming to get older patients up to this area, especially if they were required to climb stairs.

"The only problem that I've had is that we use a room upstairs, so I'm constantly having to check that people can actually climb a flight of stairs." (P17/FG4)

One pharmacist reported they did not have a consultation area and had therefore conducted their consultations during their lunch hour when the premises were closed, in order to ensure privacy for the patient. The fourth pharmacist reported that they had conducted their patient consultations in the staff tearoom, which had been less than ideal.

"Yes, I think the pharmacies should be prepared to have such patients, in other words they should be really a place set a side for that because you'd find sometimes you would have to go into a tearoom. The people are really nice they tried not to interfere as much as possible."

(P35/TI2)

It was acknowledged that for many pharmacy premises, not having a designated consultation area would be a barrier against community pharmacists conducting medication reviews. Pharmacists stated that unless a community pharmacist knew that conducting medication reviews would generate an income they were unlikely to spend money to ensure they had an adequate consultation area.

"I think pharmacies in general. I think premises would be one, the style and design, if you are looking at pharmacy in general because we all needed somewhere to do a consultation. Again I think you're back to whether the pharmacist would be prepared to do the consultation area without knowing it was going to generate enough income. I think from a financial point of view that's why people don't have them. I'm sure they would do them if they knew it was worthwhile, I think it is one of the major drawbacks." (P02/FG1)

Again, this highlights the fact some pharmacists are unwilling to engage in service development unless they are guaranteed to make a profit from doing it. Without having an appropriate and confidential area in a pharmacy then community pharmacists are unable to conduct patient medication reviews

6.10 Future development of a MMS

Finally, participants were asked to provide their views on whether a MMS was a sustainable and realistic service within the current organisational structure of community pharmacy. There was a general agreement amongst the pharmacists interviewed that whilst they would like to continue providing a MMS, with the current payment contract and working structure of community pharmacy then it would be extremely difficult to carry out this service. In particular, it was acknowledged that pharmacies would either need to have two pharmacists or dispensing technicians in place to allow a pharmacist enough free time to carry out a MMS. The following quotes illustrate this.

"I would love to do it but I think you need to have a retail pharmacy structured slightly differently. To take it on is a big issue; you really need to have a second pharmacist." (P02/FG1)

"I mean one thing, which has become absolutely crystal clear that to provide medicines management services at this level it is absolutely impossible for one pharmacist, running a pharmacy, to do it in normal working hours." (P28/FG7)

Pharmacists stated that to carry out a MMS on a long-term basis then it would have to be more organised, with designated times and days for this service to be carried out rather than trying to fit patient consultations into their current day-to-day workload. Pharmacists also believed if this service were to continue then there needed to be adequate remuneration for the pharmacist to carry out medication reviews to compensate for the time taken away from dispensing medication, their current source of remuneration.

"I think the way pharmacists are paid generally will have to change. I think with the current contract where we're paid piece work, I don't think it could work." (P16/FG4)

Pharmacists also described how they hoped a future MMS would work. Pharmacists hoped as they tried to develop their clinical role then adequate remuneration would be put in place which would allow pharmacies to close for dispensing for designated times to allow a MMS to be undertaken instead. It was also recognised that different pharmacies could take on different roles. For example, some pharmacies could continue dispensing medication whilst others could develop a MMS.

"I just feel, as we develop more of a clinical role, then there should be more encouragement for pharmacy. Maybe to be able to close for dispensing and selling medicines for ½ day or a couple of hours away a day and it's something you train your customers in to. People will, if you are the sole pharmacy in the area, then people will fit in around you. If you are one of a number of pharmacies within the area then there is no

problem providing you are properly remunerated for doing what you're doing then ok. You just lose a few prescriptions." (P05/FG4)

However, pharmacists stated until communication improved between themselves and the GPs, and GP practices saw it as a beneficial service then a MMS would be hard to undertake.

"It would be great if you could really liaise with your local surgery, with your local one or two surgeries. And I'm quite happy to see patients that don't come to our pharmacy as well, but just to have a really good rapport with the local practice, the doctors and the nurses, and if they generally felt there was a benefit as well, rather than it being a chore because they've had to get all the forms out and then they've had to respond to forms. I think if it became a much more naturalistic process; I'm sure there really is a future in it." (P31/FG8)

Two pharmacists however, stated just because they had faced problems in trying to conduct this service they should not dismiss the opportunity to undertake this extended role.

"I wouldn't kick it in to touch because I think its something we've got to address ourselves and find a solution to. I wouldn't say that because of the problems we can't do it, forget it." (P28/FG7)

6.11 Summary

All pharmacists were positive in terms of the concept of being involved in a MMS. However, the general consensus held by pharmacists at the beginning of the twelve-month intervention period, was that a MMS was

not a sustainable and realistic service within the current working structure of community pharmacy. A number of attitudinal and organisational barriers to conducting a MMS were identified.

Despite nearly all pharmacists stating they had a good working relationship with their local GPs prior to the MMS commencing, some pharmacists expressed concerns about having to discuss medication issues with their local GPs face-to-face. Whilst some pharmacists believed GPs viewed them as professionals, some pharmacists believed GPs saw them as shopkeepers rather than health professionals, which resulted in GPs not viewing them as having a similar professional status. This identified hierarchy theme is supported by Hughes and McCann's work (2003). Pharmacists also believed GPs had little understanding of their current role, particularly surrounding patient confidentiality.

Pharmacists were also concerned at the lack of GP engagement with the project. Pharmacists acknowledged that by undertaking a MMS they had to question a GP's clinical judgment and this might result in the GP feeling threatened and they could view this new role as boundary encroachment and loss of control over their patients. All these attitude barriers may have accounted for the GPs lack of engagement with the project.

Pharmacists also identified a number of organisational barriers which could prevent them undertaking this extended role. These included, time restraints, access to patient's medical records, inappropriate patient selection and lack of remuneration. The absence of financial incentives, inadequate consultation areas, time restraints and obtaining clinical information have all been identified in the literature as restraints

impacting on pharmaceutical care implementation (Miller and Orteimer, 1995; Trinca, 1995; Bell et al, 1998a; Chen et al, 1999a; Rutter et al, 2000; Rushton, 2001; Rossing et al, 2001). Whilst the pharmacists in this project identified similar organisational barriers, some pharmacists had found ways to overcome some of these barriers. This suggests that the individual aspirations and motivation of a community pharmacist may also contribute as a major factor towards successful role extension for the community pharmacist.

7. GPs' VIEWS AND EXPERIENCES OF COLLABORATIVE WORK WITH COMMUNITY PHARMACISTS

7.1 Introduction

This chapter describes the main findings from a series of qualitative, individual telephone interviews conducted with twenty-one GPs (eleven male and ten female). Interviews were carried out during July 2003 to February 2004. This was approximately six to twelve months after the GP had become involved with the MMS, in order to allow them time to gain experience of collaborating and receiving clinical recommendations from community pharmacists. The aims of the interviews were to explore the relationship between the GPs and community pharmacists, prior to and during the evaluation of the MMS, and to establish their views and experiences of working with community pharmacists conducting a MMS. GPs were also asked to discuss any potential or actual barriers that could limit community pharmacists from undertaking this extended role. Interviews lasted approximately twenty minutes and were conducted with GPs in all nine pilot sites.

The first part of this chapter focuses on the data obtained from GPs regarding their relationships and perceptions of community pharmacists. The second half of the chapter concentrates on GPs' experiences of being involved with the MMS. Throughout this chapter I have used numbers to help quantify and support the points that I report. This should allow the reader to gain a sense of perspective of the data as a whole. However, it

should be noted that when reporting the range of key themes, sometimes not all GPs are represented. This was largely due to some GPs being very ambiguous in their responses and despite further questioning their views could not always be clarified. This problem was further precipitated, as I only had around twenty minutes to conduct an interview with each GP. The key themes are reported in the following sections.

7.2 GPs' current working relationships with community pharmacists

At the start of the interviews, all GPs were asked to comment on their working relationship with community pharmacists in their area, prior to the MMS commencing. Nineteen GPs stated that they had a good working relationship with the community pharmacists in their area, describing their relationships as open and productive. GPs also reported that they found community pharmacists helpful and obliging. However, the relationship was often reactive in nature, with the community pharmacist contacting them only if they had made mistakes with their prescribing. Likewise, the GP would only phone them if they required advice and information concerning medication issues.

"I mean normally it's fine, we ring them up for information and they ring us up if they have spotted mistakes we've made and things and it's actually a very useful productive relationship." (GP03)

Two GPs stated they had a poor relationship with particular pharmacists within their area, although they pointed out that they got on well with the majority of the pharmacists in the project. One GP would not state the reason for this poor relationship however; the other GP stated that it was

due to the previous community pharmacist retiring and a lack of communication with the new pharmacist.

However, it was apparent that relationships were particularly productive with community pharmacists when community pharmacists were located in or near their practice, or where the community pharmacist had been in post for some time. GPs stated in these instances they had a more established and trusting relationships with these pharmacists. Five GPs explicitly stated that they trusted and valued the community pharmacist's advice, and viewed them as the experts when pharmacological and pharmaceutical advice was required. One of these GPs stated that GPs should be listening to pharmacists' advice as they were the 'experts' regarding pharmacy issues. Two of these GPs also made reference to the fact that they viewed pharmacists as professional equals. The following quotes illustrate this.

"Us personally get on with pharmacists really well and they are equals to us, thank you very much, and they are incredibly helpful with what they do know because they are experts just in pharmacology." (GP12)

"I do ring the pharmacist all the time so I would very much see them as an equal professional who knows more about drugs than I do." (GP09)

Three GPs stated that if they did not have an established relationship with their community pharmacist then it was hard to have trust and confidence in them. In several instances, where there had been a succession of locums in a shop the GP stated that their level of trust and confidence in the community pharmacist was not too good. One GP also stated that it was

difficult for a GP to follow advice from a community pharmacist unless they believed their advice was correct.

"That was the other thing I was going to say, if you don't actually feel that your local pharmacist was particularly good then obviously you would think I am now getting someone else telling me what to do and also how do I know that I am following the right information?" (GP09)

Six GPs stated they believed that it was important that there was a good relationship between the GP and the community pharmacist to undertake a MMS. They believed that the personality and attributes of the GP and community pharmacist involved would determine the success of the collaboration between the two professions. They thought it was imperative that a community pharmacist had the confidence to interact with their GP. Similarly, the GP would have to be willing to receive information concerning prescribing errors and accept and action medication advice regarding their patients. If this relationship were not in place, it was acknowledged that this type of service would be unlikely to work.

"I think it depends on the quality of your pharmacist and how they are going to interact. Our pharmacist is quite happy to pick up the phone and say: "Did you realise you have given this patient five million tablets?" (laughs). We can have a laugh and they say did you know this product is no longer prescribable? I mean they are quite happy to do that and we are quite happy to sit there and say "Oh dear!". They also are quite happy to say do that.....so I think if you are going to work with it you have to have good relationships with the pharmacist." (GP06)

These data suggest that before the commencement of the MMS, GPs had a positive relationship with the majority of community pharmacists within their area, although the relationship was reactive in nature and communication was generally conducted via the telephone.

7.3 Working relationship with community pharmacists during the MMS

One objective of the evaluation was to explore how the MMS had altered relationships between the two professions, therefore GPs were asked to comment whether the MMS had changed their relationship with the participating pharmacists. Five GPs thought their relationship had been strengthened as a result of taking part in the project, as it had given them the opportunity to communicate more with the community pharmacists. For one GP, it had given them the chance to mix with the community pharmacists and build relationships in a more social environment, which they stated did not happen in their normal working day.

"Oh I do and I think that the evening meetings that we had were good because I mean obviously there was the contexts of what the meeting was but it was also a social situation to sort of meet people who you do see but you never get a chance to have a coffee with or something like that, so I think on that score it was beneficial as well." (GP11)

Three GPs stated they thought the project had not altered their relationship with the community pharmacist, and one GP thought the relationship with one of the participating pharmacists had deteriorated as a result of the correspondence they had received from them. When questioned further,

this GP stated they had found the pharmacist patronising in the way they had conveyed clinical recommendations. Despite asking GPs to comment on how the MMS had altered their existing relationship with the participating pharmacists, the rest of the interviewed GPs were non-committal in their answers and therefore could not be represented. In many instances these GPs reiterated that they generally had a good relationship with their local community pharmacists. This perhaps suggests that these GPs had not had much contact with the community pharmacists during the MMS and were unable to comment whether the MMS had altered relationships.

7.4 GPs' perspectives on the differences between practice and community pharmacists

The literature suggests that GPs view the clinical capabilities of practice pharmacists differently to those of community pharmacists (Adamcik et al, 1986; Hughes and McCann, 2003), with GPs seeing the practice pharmacist's clinical knowledge as something unique to a practice pharmacist, rather than pharmacists in general. As many GP practices routinely have a practice pharmacist attend their practice to help rationalise their prescribing, GPs were asked if they currently had a practice pharmacist working with their practice, and how they thought practice pharmacists differed from community pharmacists.

Although a third of GPs stated they had a practice pharmacist working with them, these GPs were generally unsure about how a community pharmacist differed from a practice pharmacist. Most GPs acknowledged that practice pharmacists had access to medical records, with two GPs specifically stating that they only allowed practice pharmacists to look at

medical records and this activity was not granted to community pharmacists.

"Well the practice pharmacist looks at our record; well we don't let the community pharmacist come and look at our computers." (GP18)

GPs also thought practice pharmacists had a greater understanding about how a GP practice operated. Three GPs believed that this familiarity with the GP practice allowed GPs to build relationships with practice pharmacists, putting them in a better position to carry out medication reviews. However, it was acknowledged that a community pharmacist could gain familiarity with the way a GP practice worked and also that they had a greater knowledge regarding the practicalities of patients taking tablets than the practice pharmacist.

"That's a difficult one to answer really, I suppose because we can build up a relationship with them, but I don't know otherwise. I instinctively feel that practice pharmacists have got a bit more understanding about general practice that community pharmacists don't have." (GP03)

GPs stated they valued their practice pharmacists and they currently relied on them to undertake a number of clinical roles within their practice. Roles included conducting medication reviews, providing evidence-based literature, giving information regarding drug interactions and liaising with health professionals in secondary care over patient's discharge medication. In one particular GP practice, the practice pharmacist was undertaking more clinical roles such as taking blood pressure readings and carrying out basic urine tests. This GP then went on to explain that they had been so

impressed by this practice pharmacist they now independently employed them on a sessional basis for their practice.

Although GPs were generally unable to explain how practice and community pharmacists differed, they were able to explain differences by using task differentiation. In these instances, GPs were happy for the practice pharmacists to undertake a variety of clinical roles and have access to patients' medical records. These data suggest that the participating GPs viewed practice pharmacists differently to community pharmacists, perhaps viewing their clinical capabilities as being greater than that of a community pharmacist.

7.5 Expertise of the community pharmacist to undertake medication reviews

Ellis et al (1992) found when assessing GPs' views about pharmacists extending their role, 44% of GPs questioned did not think pharmacists' training was adequate to undertake an extended clinical role, and only 19% of GPs questioned indicated they had investigated the extent of a pharmacist's training. Interviewed GPs were asked to comment about their knowledge of a community pharmacist's training and why they thought community pharmacists were trying to undertake new roles. Finally, they were asked to comment whether they perceived community pharmacists as having the necessary expertise to undertake medication reviews.

Eighteen GPs stated that they had very little knowledge about a community pharmacist's training, although three GPs stated that they knew what a community pharmacist's training entailed, because they knew friends or had relatives that were community pharmacists. Two GPs specifically

stated they were aware of the changing contract occurring for community pharmacists and thought this was the reason they were trying to redefine their role. Another GP thought that community pharmacists were likely to feel underused and frustrated with their current role and that this was the driving force for them trying out new roles.

"I would assume that the pharmacists are well trained, they must be bored to tears with handing out twenty eight pills every month and stuff. They probably feel underused as a service, their abilities are underused and I think getting in to patient advice and management, it just seems natural to me." (GP04)

These data suggest that the majority of GPs had a poor knowledge of a community pharmacist's training and little understanding around why community pharmacists were being encouraged to develop their role into more clinical domains.

GPs were then asked to comment on whether they believed community pharmacists had the necessary expertise to carry out medication reviews on patients. Overall, seven GPs thought community pharmacists had the necessary expertise, providing they received training and had supervision. It was acknowledged by GPs that pharmacists generally had good interpersonal skills and a thorough knowledge of medicines which was often greater than the doctors, although several GPs had some concerns that they did not know patients as well as the GPs.

GPs believed that community pharmacists would require training, particularly in areas such as choosing appropriate blood tests, as this was not a routine role for the community pharmacist. However, they believed

with mentoring and support from GPs, a community pharmacist could easily learn these skills. It was acknowledged that the level of help required by a pharmacist would be dependent on their experience. One GP thought that older pharmacists may be more hesitant about undertaking a MMS than younger pharmacists, but would be able to do it once they received training and support from GPs.

"I think they are bright individuals they have all got degrees for starters and many of them have good interpersonal skills and I think that with a bit of training, and particularly with supervision and mentoring, they have got to have a set up of people I think to supervise them and mentor them so that they have got a professional tree to work to. Then I would be suggesting, yes, I think that they have got the skills. I mean we all need training. If we are going to do something different then we need training."
(GP06)

One GP acknowledged that nurses now tended to have a more prominent role with patients within the primary care setting and this had occurred with support from medical colleagues. Therefore, they believed providing there was support from the medical profession, there was no reason why community pharmacists could not extend their role.

"We are putting so much emphasis now on chronic disease management, chronic disease management clinics in the primary care setting are now increasingly being run by our nurses, now these nurses have no formal medical training but over a period of time with practice and support from their medical colleagues they have been able to take on this mantle and there is no reason why the community pharmacist cannot do that with adequate support." (GP01)

Eight GPs were unsure if community pharmacists had the necessary expertise to carry out this extended role. Four of the GPs clarified their views further. Two GPs thought community pharmacists' ability would be quite varied and it depended on how much postgraduate training they had undertaken. The other two GPs thought that community pharmacists would find it difficult to undertake a MMS due to them not having full access to medical records, rather than a lack of expertise. They acknowledged that community pharmacists would be unable to conduct a medication review for a patient without access to the patient's medical records.

"I think they certainly have the expertise, I think that without the clinical knowledge background, that's not saying they don't know their stuff, it's saying they don't have the information about the patients, I think that they were inevitably limited. If I had to do the same job without access to the patients' records I would be limited in exactly the same way so it's that that limits it, not their training or expertise." (GP02)

Again, despite asking GPs to comment on this topic the remaining GPs were non-committal in their answers and therefore could not be represented. However, what these data suggest is when GPs did provide their views, they believed community pharmacists could extend their role if they received training and support from their local GPs.

7.6 GPs' perspectives on collaboration with community pharmacists

In order to assess how the general GP population would react to a closer working relationship with community pharmacists, participating GPs were

asked to provide their views. Five of the interviewees thought the GP population would generally welcome having a greater degree of collaboration with community pharmacists, probably viewing it as helpful in reducing GPs' workload and creating a closer working relationship between GPs and community pharmacists.

"I think they will find it very helpful, especially if pharmacists do sort of really review medication, especially if you look in the over 75 NSF with the patient review, patient self-medication. If they are on more than four (medications), then it is every six months, then that is quite an undertaking. So if pharmacists would take that off our hands, then I don't think any GP is going to complain." (GP16)

Seven GPs thought that there would be a mixture of reactions from the GP population regarding a closer working relationship with community pharmacists. Participating GPs believed that greater collaboration with community pharmacists would be appreciated by GPs used to working in a team environment. However, it was acknowledged that some GPs would not welcome this because they would not accept advice from a community pharmacist. It was stated that some GPs would not follow guidelines and prescribed medications how they saw fit, and therefore would not be willing to change their prescribing habits. It was also thought that there would be a third group of GPs, who would initially be suspicious and hesitant about working with community pharmacists, but would be willing to attempt greater collaboration with them. Three GPs increasingly thought that more and more of their GP colleagues would be happy to work co-operatively with pharmacists.

The following quote from one GP illustrates how they believed the general GP population would react to collaborating with community pharmacists.

“Well I think you will get three different responses; one will be GPs who already work in teams and work with other professionals, who will think this is great. Then you’ll get another response which is GPs who feel they are the dominant, deciding force in medicine and other professionals should pay heed to them and they won’t be interested. And then you’ll have a group of GPs in the middle, who will think “Is it going to increase my workload or not?” Once they have been reassured by the pilot schemes it’s not and they can see that it’s going to help, I think they will probably go for it, so I think there is those three groups.” (GP04)

However, three GPs thought that the GP population would generally be against having a greater collaboration with community pharmacists. The main reason for this was that GPs would see it as causing an increase in their work load, as they would need to set aside time to discuss issues with the community pharmacist. They also thought GPs would see the community pharmacist as ‘an interference’ and would generally be threatened by them, which, in turn, would make them unwelcoming to this type of service. One GP thought that if GPs had the opportunity to work with community pharmacists this could change their attitude towards them as they would see benefits.

“A lot of GPs seem threatened by it I suspect, but us personally don’t, but if you have worked with them an awful lot and got the benefit from them you love them to bits.” (GP12)

As before, the remaining GPs were ambiguous in their responses and therefore could not be represented.

Participating GPs were then asked to give their views on why GPs would not welcome collaboration with community pharmacists. A variety of very pertinent themes were suggested. Eight GPs believed this could be due to the personality of the GP, where doctors did not like their judgment being questioned, or were not a team player.

"Basically because doctors are arrogant bastards!" (GP14)

GPs then expanded this theme by stating that there were also hierarchy issues, whereby doctors believed they were professionally higher than pharmacists. They therefore believed they had greater knowledge than a community pharmacist and were not willing to accept another professional's advice. They were also threatened when another professional appeared to know more than them. The following quotes illustrate this theme.

*"Professional boundaries, old style doctors know best kind of things."
(GP02)*

"I think doctors do feel threatened if another professional appears to know more than them about something especially when the, I suspect the psychology behind it is I am a doctor, I am better than you, you're just a pharmacist, I think." (GP12)

However, it was acknowledged by GPs that this mentality was changing as doctors, particularly younger doctors were more used to working as part of

a multidisciplinary team, and therefore realised they were not the only health care professional that could have a role in managing patients. As a consequence, doctors were happier to delegate tasks that had previously been seen to be physician's roles, such as medication review to the pharmacist.

"I think medical people are changing and I think your younger doctors are probably not so threatened because they are used to working in partnership with professionals on the same level, but your older style doctor, or the ones that maybe are younger but still have that mentality, have problems with it." (GP12)

Three GPs thought that some GPs were very threatened by community pharmacists pointing out potential problems with how they managed their patients. These GPs saw delegating work as loss of control over their patients.

"Threatening, I think it's threatening.....Challenging management and criticism, someone else saying you're not doing what you should." (GP07)

One GP thought that GPs would not want collaboration with pharmacists because it would potentially lead to conflict between the two professions and could send out mixed messages to patients regarding who was responsible for them. When questioned further, this GP stated that they thought it was outside the role of the community pharmacist to have a greater input into patient care.

"I would... I wouldn't see it as the traditional role of a pharmacist, whether it is the role, or the developing role, of the pharmacist is for other people better than me to tell me." (GP15)

However, one GP stated that they found it difficult to understand why GPs were not willing to undertake collaborative projects when they had the opportunity to off load work. Similarly, two GPs stated that just because GPs were often negative about undertaking projects with community pharmacists, collaborative work should still be pursued because it would take time to change and convince GPs that collaborative work with community pharmacists could be beneficial.

"I said that basically they will have to continue to knock on GPs doors and not be put off by any perceived negativism, partly because GPs are slaves of their habit. It is true and I can say this as a GP myself, GPs are slaves of their habit and it's a sort of a habit that has been founded over so many years and they look upon pharmacists or rather we look upon pharmacists as outsiders, so there is this artificial barrier and this barrier has to be broken down." (GP01)

These data has indicated that GPs believe that there would be a mixed response from the general population of GPs about having a closer working relationship with community pharmacists. GPs stated the advantages of increased collaboration included reduced workload, whilst reasons put forward against collaboration included professional hierarchy, fragmentation of patient care and anxieties around boundary encroachment.

7.7 General assessment of the MMS

In the second half of this chapter, the attitudes of GPs towards the actual role of community pharmacists in a MMS are reported. In each of the interviews, GPs were asked to provide a general assessment of how they had experienced the MMS. GPs were also asked to comment on why they had participated in the project, along with the advantages and disadvantages of being involved in a collaborative MMS.

A variety of perspectives were encountered. Six GPs expressed a positive overall view about the MMS, with strong pockets of support in one of the pilot areas. Those GPs reported that the project was going well; it was encouraging collaboration with the local community pharmacists, enabling them to build a rapport and utilise the pharmacist's knowledge. However, eight GPs expressed more ambivalent views about the MMS, stating that the concept of the project was good, but practical issues such as poor patient recruitment and the lack of shared computerised medical records had impinged on the success of the project. The remaining seven GPs were more negative in their assessment of the service. This was due to a number of factors, including the belief that it had made little impact on the management of their CHD patients and it was often duplicating work that had already been carried out within the practice. An increase in workload and paperwork associated with the project, particularly in the initial stages were also seen to be negative aspects. The following quotes illustrate the range of views given by the GPs about their actual experience of being involved in the MMS.

"I thought it was a good way forward, I thought it was a good first step for us to be working together as a team." (GP01)

"It's generally working reasonably well. I like the involvement of the community pharmacist. However, I think one of the major drawbacks, because they're not operating and using the same record system, they're not aware of what we are doing always and therefore that limits it." (GP02)

"I don't think it has made a blind bit of difference." (GP18)

These data suggest that more GPs were ambivalent or negative about the MMS than those that were positive.

7.8 Motivation to participate in the MMS

A variety of factors were identified by the GPs, which had motivated them to participate in this project. Four GPs stated they had seen this type of service as a chance to improve collaboration with the local community pharmacists, which they perceived to be good. Two GPs stated they had participated because it was an adjunct to other work carried out within the practice. Three GPs stated their practices had participated in the project as they hoped it would help improve services for their patients. They believed that having community pharmacists' input into reviewing patients' medication could potentially improve patient compliance, rationalise medicines, and be more convenient to the patient, as they could have their medication reviewed at the pharmacy rather than the GP practice. This could be particularly beneficial if the patient had a good relationship with their local community pharmacist, as it was an ideal opportunity for the

community pharmacist to become more involved in reviewing their medication.

"...They are often...the patients are quite attached to a local pharmacy business. Things like Boots, where there is different pharmacists in, and its not their own business, that's a bit different, but local little pharmacists running their own shops are sort of little pillars of the community and that area of the community are quite attached to that person and trust them. So we thought that would be a way forward since we were using pharmacists a lot anyway in our surgery we thought well ok it seems a good idea to use them out in the community as well if they are willing to do it." (GP12)

Just over a third of GPs stated they had got involved in the project after being approached by the PCT to take part, or because partners in their practice had shown an interest. However, three GPs stated that they felt obliged to take part in this project even though they believed the project would not be beneficial to their practice, or the project held little interest to them.

"Because we were part of the primary care collaborative project and we didn't have much choice in the matter. I think at the beginning we felt we didn't need it for our practice." (GP03)

Nearly all the GPs interviewed stated they had had little input in to the project and had only ever attended the launch meeting, with several GPs stating they had attended no meetings¹⁰. This suggests that despite GPs

¹⁰ Community pharmacists and GPs were initially invited to attend a launch meeting which aimed to give an overview of the CPMMP. Subsequent meetings were held during the course

citing a variety of reasons why they had become involved in the project, the majority of the participating GPs did not become actively involved in it, perhaps suggesting they did not view this project as a high priority.

7.9 Clinical recommendations

To assess whether the clinical recommendations GPs had received from the participating community pharmacists had been appropriate and beneficial, all the GPs were asked to provide feedback. Nine GPs thought they had received recommendations which had been appropriate. Within this feedback, one GP stated they were surprised that the majority of the recommendations were not concerning CHD medication, and although appropriate they had not set enough time aside to review other medication issues. One GP thought the recommendations they had received from the community pharmacists had been adequate in the CHD area, but they had concerns regarding their knowledge in other clinical areas as they thought the recommendations were not as evidence based. Two GPs stated that the CHD recommendations although appropriate were just duplication of work that had already been carried out within their practice but acknowledged they had found recommendations in non-CHD areas useful.

Four GPs stated they had received a mixture of appropriate and non-appropriate recommendations from the community pharmacists. One GP acknowledged that the lack of medical notes might have caused this to occur.

of the CPMMP to provide participants with an update of the progress of the project but participation was voluntary.

"They have generally been appropriate except where things have been thought about before. So for instance, they might say: "Why is a patient on this drug?" When there are indications that we have in our records that say why this decision was taken." (GP02)

One GP stated that the majority of recommendations they had received had not been helpful, as the recommendations had been things that they were already aware of or knew.

"There has been lots of lengthy comments about side effects and things, which we know already. Like.... "Did you know ibuprofen causes stomach upsets?" Not much of the stuff I have seen has been helpful." (GP03)

Five GPs stated they could not comment on the appropriateness of the community pharmacists' recommendations. This was due to one GP not knowing whether the recommendations had come from the practice or community pharmacist, three GPs not receiving any recommendations from community pharmacists and one GP stating that their practice pharmacists had generally dealt with the recommendations.

"It's very, very difficult...the doctors haven't really done it because it's gone through to our pharmacists." (GP12)

Fifteen GPs interviewed thought the majority of their patients were already on the recommended regimen of drugs for CHD (the remaining GPs never clarified this). However, two of these GPs acknowledged that it was still useful to have another professional review the management of their patients, because until a mistake was highlighted then they tended to think their patients were on the correct regimen of medication.

"The trouble is you always think your patients are on the correct treatment and I think its only when somebody points out has this person had their cholesterol done that you think oh, right ok and that's why I think it's quite useful with another professional looking at your management because you tend to think that you do things ok." (GP11)

These data suggests that the majority of GPs thought that their CHD patients were already on the correct regimen of medication and were ambivalent about the recommendations they received from community pharmacists. Once again, the data suggests that some GPs perhaps did not view this project as a priority as they had left the practice pharmacist to deal with community pharmacists' recommendations.

7.10 Perceived advantages of community pharmacists carrying out a MMS

GPs were asked to comment on the perceived benefits of community pharmacists carrying out a MMS. Nineteen of the GPs thought the MMS had a positive affect on patients, in that it allowed patients another point of contact, especially for patients that were fearful to see the GP. They also believed it had helped patients to understand their medicines more. One GP thought patients were sometimes uncomfortable discussing problems about their medication because they did not want the GP to be displeased with them and, as a result, they did not talk about medication issues with their GP. This particular problem could potentially be avoided if the patient had the opportunity to discuss their medication with community pharmacists. The following quote illustrates this point.

"The patient also feels that sometimes it's difficult to bring a little thing back, like she doesn't like a tablet or he doesn't like a tablet, I had better not tell the doctor because there's a socially desirable situation going on as well. So the patient coming in has to work out whether they think we will approve or disapprove and if they think we will disapprove they won't tell us, but if they think we are ok we might approve they will tell us, but there is a lot of people out there who actually feel that it's not appropriate to be talking about that with the GP." (GP06)

Twelve GPs reported that they had received feedback from their patients regarding this project. In all but two of the cases, the GPs stated that the feedback received had generally been positive. This was mainly because patients had appreciated and enjoyed someone taking an additional interest in them. Two GPs stated they had received feedback from patients that it had been a waste of time.

"Certainly the patients that came in to us, their only comments was that we were wasting their time and they felt it was built up to be something really wonderful and when they got it, it wasn't really anything at all."
(GP18)

Other perceived advantages for community pharmacists providing a MMS were thought to be the potential to reduce the GP's workload. Three GPs hoped that community pharmacists having a larger role in reviewing patient's medication would free up time for them. It was also acknowledged that this was a role that they currently did not have time to do and consequently, they were only getting 'snap shots' of the potential problems patients were experiencing with their medication.

Five GPs believed that community pharmacists had the advantage of knowing whether patients were collecting their prescriptions, and were therefore often more likely to know than the GP whether patients were taking prescribed medication on a regular basis. GPs acknowledged that once they had written a patient a prescription, they often had little idea whether patients actually took this medication. Community pharmacists having this greater 'ground knowledge' could aid a patient's compliance, as the pharmacists could alert GPs when patients were not collecting prescribed medicines. Three GPs also believed that in providing a MMS, community pharmacists would provide a double check on patient's medication, and could have a role in providing lifestyle advice, alerting the GP if problems arose.

"Well there will be sort of more consistent advice because they tend to go to a pharmacist not just for their medication but for other things. I think you tend to find the pharmacist tend to have in general more sort of ground intelligence, which GP's don't always have. So I think from the point of view of actually managing their life style as well, pharmacists can have quite a great impact." (GP16)

Three GPs saw no real advantages to community pharmacists providing a MMS, other than highlighting a few patients that they needed to follow-up. One of these GPs acknowledged that community pharmacists providing a MMS in a non-computerised practice probably would have been useful.

7.11 Concerns and barriers to community pharmacists undertaking a MMS

Participating GPs were then asked to identify any key difficulties they had encountered whilst undertaking this project. GPs were then asked to identify any barriers or further concerns they had over community pharmacists undertaking a MMS. Despite GPs hoping that a MMS led by community pharmacists would reduce their workload, the most common difficulty encountered by half of the GPs had been the workload impact. GPs commented on the amount of administrative work that either they or their staff had to undertake at the beginning of the project, which had been both timely and laborious to complete. Other GPs commented on the amount of paperwork they received as a result of the pharmacist recommendations. Their main comment was that they had not been expecting to receive so much paperwork and as a result it had taken them longer than anticipated to go through the recommendations and act on them. This perhaps indicated the GPs' main interest in being involved in this project had centered on how the MMS could have helped reduce their workload. MacRae et al (2003) concluded that whilst the majority of GPs considered a PLMR as a useful service, views were divided between GPs who perceived the PLMR had increased their workload and those who believed it reduced workload overall. To some GPs, the time to deal with the extra workload appeared more of an issue than the perceived importance of the PLMR service.

"On the basis of what has come out of this last project it has just actually made my life busier and been an increased workload and I don't think it has taken anything off my workload." (GP15)

A second concern held by over a third of GPs, was that the work undertaken by the community pharmacist in this MMS had already been carried out within the practice, therefore it was merely duplicating work. This further precipitated the workload issue as GPs were spending time on patient issues that had often had been covered. In some instances, GPs were frustrated that community pharmacists were making clinical recommendations that they had already considered, as demonstrated by the following quote.

"Again I suppose we felt just because of the area that it was just duplication, again you know if they're not on aspirin, there is obviously a good reason why they are not on aspirin." (GP09)

Two GPs acknowledged that duplication had occurred because often the participating community pharmacists were not aware what had already been done for the patient. For example, whether a particular medication had been tried because they did not have access to the patient's medical records.

"I think one of the problems could have been that what the pharmacist was doing he didn't really have access to our medical records so they seemed to be going over a lot of old things that we had covered anyway." (GP08)

Three GPs believed that access to shared records would be imperative to operate this type of service effectively, and to reduce the confusion that could occur if a community pharmacist was having a greater role in reviewing patients' medication.

7.11.1 Commercial interests of a community pharmacist

The literature suggests that many GPs see community pharmacists primarily as business people, shopkeepers or special retailers (Adamacik et al, 1986; Spencer and Edwards, 1992; Ellis et al, 1992; Hughes and McCann, 2003), and this represents a conflict of interest when community pharmacists undertake health care roles. For example, in both Ellis et al (1992) and Spencer and Edwards (1992) study, approximately a third of GPs questioned thought commercial pressures biased the pharmacist's advice. In this project, two GPs stated this was a concern held by them, and two GPs implied that this was a concern, although on further questioning they would not clarify whether this was a concern. These GPs believed that the advice community pharmacists provided to patients could be affected by a commercial interest. The following quotes illustrate these concerns.

"The difficulty I have really is trying to be certain that their advice is not commercially related." (GP19)

"So I think the money making thing, about selling the product that either they make the most money from or they want to get off their shelves I don't know which it is, I have no idea." (GP18)

As a consequence, these GPs were often suspicious of the advice they received from community pharmacists as they believed products were recommended to make a financial gain. Two GPs gave examples of how they believed community pharmacists had tried to make a financial gain when providing them with prescribing advice. The descriptions also suggested that these GPs believed community pharmacists gave either

inappropriate or dishonest advice so they could make a financial gain. The first quote describes how the GP believed the community pharmacist had given inappropriate advice in order to sell a more expensive product to them.

"I'm not sure. Obviously the audit commission survey was showing people getting inappropriate advice. Certainly when I have gone to pharmacies for my children I have been persuaded to buy things, which you know like Medised® for example, which I don't believe in they're telling me it is better than Calpol® and things like that. And patients tell me that's what pharmacists tell them." (GP18)

The second quote describes a situation whereby the GP believed the community pharmacist has not been totally honest about a supply problem with a particular medicinal product. As a consequence, the GP believed the pharmacist had made a financial gain through their advice.

"Well yeah, it's a little bit difficult because if I get contacted and say so and so is no longer available, I suggest you prescribe X and you find X is a lot more expensive than what has just been discontinued, then you find it was a temporary supply problem and you think now hang on a minute, this repeat prescription has now been changed, it is going to be difficult to change it back again and a commercial gain has been made as a result of that advice. I'm thinking "Well hang on a minute!" Did the pharmacist know that it was a temporary problem? (GP19)

Hughes and McCann (2003) concluded that the commercial aspect of community pharmacy could create perverse incentives for community pharmacists to sell more medication. They also argued that the commercial

aspect influenced GPs' views on pharmacist prescribing because they believed community pharmacists would prescribe more medication. One GP in this project stated that unless the commercial element was excluded from a community pharmacy, it would represent a conflict of interest and present a barrier for community pharmacists to undertake a medicines management role. The following quote is from a GP who describes a project in a neighbouring town where community pharmacists were issuing OTC medication free of charge. The GP believed that this project was more credible, as the financial gain had been removed.

"Well yes it does because the commercial side keeps rearing its head. Where the commercial side of things has been cut out completely is at a neighbouring town to here is XXXX. They have got a project going whereby the pharmacist can actually issue OTC medication free of charge, so there is no commercial difference." (GP19)

Although only a small number of GPs stated that the commercial aspect of community pharmacy was a concern, these data have demonstrated that for some GPs this concern affects how they view community pharmacist's clinical advice or recommendations.

7.11.2 Access to medical records

Participating GPs were asked if they would be willing to allow community pharmacists access to medical records. This was pertinent, as GPs had previously acknowledged that community pharmacists not having access to medical records would limit their ability to undertake a MMS and duplication of work had occurred as a consequence. Eight GPs stated they would be willing for community pharmacists to have access to patients'

notes providing they had the patient's consent and the pharmacist could uphold patient confidentiality. It was acknowledged by three GPs that they already had practice pharmacists looking at medical notes. There were some practical concerns over how the community pharmacist would access the notes, and there was a general agreement that the practice would have to know the pharmacist. GPs also believed it would be unacceptable to have locum pharmacists looking at the notes. Whilst one GP did not object to community pharmacists having access to medical records they had concerns regarding a community pharmacist's capability to understand them, as illustrated in the following quote.

"I would think pharmacists would have a bigger problem in trying to understand them! I mean I don't, again whether the training would let them cope with the medical records but I don't have a sort of emotional problem with it." (GP17)

Six GPs stated they were unsure whether community pharmacists should have access to patient medical records, while two GPs stated they were against this idea. Their concerns all centered around patient confidentiality, as pharmacists would have access to information outside medication issues. GPs stated they guarded their patients' privacy very carefully and believed it would be difficult to 'police' the information that the community pharmacist was obtaining about a patient. The following quote illustrates one GP's concerns about community pharmacists having access to patient medical records.

"Yes and no. I think the whole area then that opens up is all the areas of confidentiality and people who are not actually part of the GP primary care team, who have access to confidential medical records, which may include so and so is having an affair with so and so, who might happen to be the

pharmacists neighbour, you know. It may not... it's a most unlikely scenario but our duty first and foremost to all our patients is confidentiality." (GP15)

Several pertinent themes can be identified from this quote. Firstly, this GP did not consider the community pharmacist as a member of the primary care team. This was mainly due to the community pharmacist not being located within the GP practice and perhaps (although this was not substantiated) because they were not under the direct supervision of the GP. However, only this particular GP made this reference therefore it is difficult to discuss this theme further as it appears as an isolated case.

Secondly, there was no consideration by this GP that a community pharmacist had their own code of professional ethics, which state they should respect and protect patient confidentiality (Royal Pharmaceutical Society of Great Britain, 2005). During the course of the interviews it became apparent that GPs had little knowledge regarding a community pharmacist's professional responsibilities regarding confidentiality issues. Only two GPs made reference to the fact that community pharmacists were also professionals and would be bound by a confidentiality code.

"Again the pharmacists are professionals they're not just anybody looking at records and are bound by the codes of confidentiality in any case."
(GP11)

However, it should be noted that even though one of the GPs acknowledged that a community pharmacist was bound by a code of ethics to uphold patient confidentiality, they stated that they were against community pharmacists having access to a patient's medical records. The following quote demonstrates this.

"Obviously the pharmacist is another professional working with that patient but I feel looking through the medical records I don't know just because obviously it's going to contain information that has got nothing to do with the medication." (GP09)

These data suggest that the majority of GPs had varying degrees of concern about community pharmacists having access to patients' medical records, due to issues surrounding patient confidentiality. This concern held by GPs could potentially be a major barrier for community pharmacists to conduct medication reviews fully.

7.11.3 Communication of clinical information between community pharmacists and GPs

Participating GPs were asked to comment on how they had received the clinical recommendations from the community pharmacists during the project. They were then asked to comment whether they found this form of communication acceptable. Seven GPs received all the clinical recommendations via post and had no face-to-face contact with the participating pharmacists during the project. The majority of these GPs claimed they were happy to receive recommendations via post as often it was more reliable than receiving a verbal recommendation because they had evidence of the recommendations. It also gave GPs the opportunity to respond to the interventions at a time convenient to them. One GP, although happy receiving written recommendations, stated that after the pharmacist had received their comments then a telephone call may have been useful to confirm and discuss the comments.

Two GPs stated that they would have liked some face-to-face contact with the participating pharmacists. One GP stated that there had been some bad feeling between a particular pharmacist and their practice and believed a face-to-face meeting may have helped eased the tensions, as both parties would have had the opportunity to discuss their needs and requirements from the project. The other GP worried that the community pharmacists may have thought their comments were abrupt, particularly if their suggestions were being declined. They believed that a face-to-face meeting would have given them a chance to explain the reasons behind them not following recommendations.

"Well I wonder whether they'd like that, because sometimes I feel you know we actually putting messages on the forms and sometimes I think well perhaps they are a bit abrupt if you say no this patients being seen at hospital and were under review, and that sort of business, when actually their points are very valid." (GP06)

Three GPs stated that they had face-to-face meetings to discuss the pharmacist's recommendations and all were happy with this method of communication, although one GP stated they also would have liked written confirmation of the recommendations to supplement the meeting. The GPs stated that they found this method of communicating recommendations satisfactory, as it allowed them the opportunity to explain more difficult cases. For example, why certain medications were not being used in individual patients.

Three GPs stated that they had received recommendations by post and face-to-face. One GP stated they liked having face-to-face meetings but acknowledged that the time involved could be an issue. The other two GPs

stated that they currently communicated a lot with their community pharmacist, so they were used to the community pharmacist phoning them up about patients.

"I quite like the direct contact really, but that's a time issue for both the pharmacist and myself, as I say it's quite nice to be given something. It takes quite a lot of the pharmacist's time and I think it's quite nice for them to realise that we do appreciate what they have been doing." (GP11)

The remaining GPs had either not received any recommendations, or were ambiguous in their comments and therefore could not be represented. However, from the feedback obtained the data suggests that some GPs would have welcomed more face-to-face communication with the community pharmacist.

Despite the majority of GPs being satisfied with how the recommendations had been communicated, four GPs still held concerns over how clinical information potentially would be communicated between the GP and the community pharmacist, if the community pharmacist had a larger role in reviewing medication. These concerns centred on the patient having to pass information between the two parties. This, they feared, could lead to confusion about what the patient was actually taking and what the patient perceived they were taking because there had been inadequate communication between the GP and community pharmacist.

" Yes there is communication issues and there is what patients perceive they're being told, and then you mixed messages and the GP said one thing and the pharmacist said something else and maybe they didn't, it's just misconceptions and again it all boils down to communication." (GP12)

In addition, three GPs also reported that although some of the recommendations they received throughout the project were appropriate, they had put the GP in a difficult position due to the manner in which they were communicated to the patient. This had usually been because patients were expecting medication changes to occur as a result of seeing the community pharmacist. In some instances, GPs reported that patients were expecting changes to medication despite having already discussed these changes with their GP. As a consequence, the GP was then required to reiterate this information to the patient which was both frustrating and time consuming for the GP.

"Because I think part of the difficulty was this wasn't a case of the pharmacist interviewed the patient and then sent me the recommendations. These recommendations were discussed with the patient. The patients came to me expecting me to make those changes in their medications, which put me in a very difficult position in a lot of instances." (GP19)

These data suggest that a small number of GPs were concerned about the potential for the MMS to cause either confusion for the patient or undermine the patient/GP relationship.

7.11.4 The role of community pharmacists in medication reviews

During the interviews, four GPs raised concerns over the appropriateness of community pharmacists conducting a medication review. On further questioning, two of these GPs stated outright they did not believe conducting a medication review was the role of the community pharmacist.

Their concerns centred on the pharmacist having the responsibility of changing a patient's medication. They acknowledged community pharmacists could have a role in some aspects of reviewing a patient's medication, for example, checking a patient's compliance but they believed they should not have the responsibility for changing medication. The following quote illustrates this.

"...Now I'm not sure the pharmacist is the best person to do that, they can actually check the drugs they're taking, that they're complying but I'm not sure they are the person to have the responsibility for changing medication." (GP15)

It should be noted that community pharmacists in this MMS were only recommending changes to a patient's medication regimen, the GP still had the overall responsibility and decision regarding whether clinical recommendations were implemented. This suggests that some of the GPs had a poor understanding, or had misunderstood the role of the community pharmacist in this MMS. The interviewed GPs were not specifically asked to comment about their views on community pharmacists having the responsibility of changing medication or prescribing medication, these concerns were voiced independently by some GPs.

The data suggests that GPs had further concerns about community pharmacists providing medication reviews. GPs had concerns that community pharmacists often did not know patients well enough to make decisions over their medication and therefore, should not have this responsibility. Two GPs believed that community pharmacists could follow straightforward clinical guidelines regarding medication but stated patients were more complex than guidelines. One GP also believed community

pharmacists should not need to undertake a MMS role if the GP was carrying out their job correctly. The following quotes illustrate the views of GPs about the complexity of patients and medication.

"As I say they're following fairly clear and straight forward guidelines, patients are often more complicated than guidelines and patients often have a long history so when they see a patient for how ever long they see a patient I am not sure how long it is, they're not aware necessarily of a lot of time and work that's gone in before over some years." (GP02)

"I mean I think getting medication right is quite complicated and it depends on quite a lot of medical historical information and unless they have got the whole set of notes and they are sitting down with the patient and got to know them over a period of time they can't do that." (GP15)

One GP had concerns because community pharmacists were not based within the GP practice. This meant that GPs had no control over what work they carried out regarding medication reviews, nor did they know exactly what they were doing. They compared it to having district and practice nurses and stated they found it easier to work with practice nurses because they were based within the GP practice and could oversee their work.

"I want to know what 's happening and it is always...it is just like asking a district nurse to do something rather than asking a practice nurse to do them. There is an enormous difference because the practice nurse is based within the practice and basically we are responsible for the quality of her work you know what you get done. While with a district nurse if you ask a district nurse to do something it is very different. You are not responsible for what they do, you can't control the quality of what they do and

sometimes it gets done and sometimes it doesn't and sometimes it's done well and sometimes it isn't, which is not the case for practice nurses because you know what you get." (GP18)

This particular GP also had concerns regarding the cost involvement of pharmacists undertaking medication reviews, and believed other members of the primary care team could undertake this role more cheaply. They suggested either a nurse or healthcare assistant as a cheaper and therefore more appropriate person to be undertaking a MMS.

GPs were also concerned that if community pharmacists had a larger role in reviewing patient medication, this could cause a fragmentation of responsibility and care in terms of who was prescribing and who was responsible for those prescriptions. Three GPs specifically stated they had concerns about community pharmacists having a role in prescribing, arguing that it would be difficult to manage their patients if more than one person was prescribing for them. They feared it could potentially lead to confusion over what a patient should be taking. They therefore believed there should be one person responsible for issuing and adjusting medication. There were also concerns that it could cause conflict between the two professions if they both had a role in reviewing medication. One of these GPs also believed that legally doctors and pharmacists should not work too closely together in case they were deemed to be conspiring with each other.

"I mean to a certain extent you know we have always had this divide that legally implies that you know you shouldn't be too close to the pharmacist in case it was felt that we were colluding." (GP17)

These data suggest that GPs had a variety of concerns about community pharmacists conducting medication reviews. These included lack of knowledge about patients' clinical history, fragmentation of responsibility for patient care, and anxieties over not being able to oversee the work of community pharmacists.

7.12 Future roles for community pharmacists

During the course of the interviews, GPs often stated the roles that they believed community pharmacists could undertake that would be more beneficial to help reduce GP workload and benefit patient care. Four GPs believed that community pharmacists could have a much larger role in managing patients' repeat medication. GPs stated this was an area that was often poorly managed within their practice and was a considerable workload for them. It was proposed that community pharmacists could help make sure patients ordered their medicines at the correct time and have a system where they collected tablets from a community pharmacist over a set period of time, with the community pharmacist referring them to the GP if problems arose. The following quotes illustrate this.

"Again you can take quite a bit of the workload off the doctor because I know in quite a lot of countries where patients have to come for prescriptions every four weeks and meaning they take a prescription for maybe six months to the pharmacist and collect their tablets every one or two months." (GP20)

"I wouldn't like to see them necessarily changing medication but I think they can go a long way helping to rationalise their medication, especially in things like if they are on a monthly prescription but each drug is ordered at

a different time, you know trying to tie it all up together and I would be happy to have a system where we didn't have to necessarily sign a prescription every month." (GP10)

One GP thought that community pharmacists could have a role in patients' medication post hospital discharge, as they believed this was often a time when patients required help and education on their medication due to changes made during their inpatient stay. Another GP suggested a system whereby GPs referred patients, particularly the elderly, on poly-pharmacy to the community pharmacist for their input. One GP stated their practice pharmacist was already reviewing all the medication for the over '65's' on more than four medicines and this was proving to be very effective. This particular GP acknowledged that doctors should attempt to find out what pharmacists could do so they could utilise their help. This is shown in the following quote.

"I think there should be closer co-operation; it would be I think we as doctors should get to know what pharmacists should be able to do and actually we ought to be, I would like to see a situation where we are sending people to the pharmacist for their input." (GP06)

These data shows that GPs were often suggesting roles for the community pharmacist to undertake that had little autonomy. Once again, GPs made reference to the fact that they would not like to see community pharmacists having a role in prescribing.

7.13 The suitability of the community pharmacy premises

GPs were asked if they thought a community pharmacy was an appropriate setting to be conducting a MMS. Over half of the GPs thought that a community pharmacy was adequate providing there was a private consultation room to carry out the review. However, four of these GPs commented that currently many pharmacy shops would find it difficult to provide a confidential area because they did not have the space. This would be an issue that needed addressing if a MMS were to be conducted from a community pharmacy, as having a confidential area was imperative to undertake this type of role.

However, two GPs believed that the consultations should be carried out within the GP practice. They believed it would make it a more efficient process due to the patient information being held at the GP practice. Furthermore, discussions with the patient could be recorded on the GP computer system, which would help reduce duplication of work.

"I think it has to be the most efficient. I can't see the prescription review outside the surgery could possibly be more efficient than one within the surgery because it just puts an extra wing on it. Which I think when it is done within the surgery you know the prescriptions, you know the information is on the computer system, which if obviously someone outside has done it then that information has then got to be put on our computer system, otherwise we are not going to know it is done and we are going to repeat it and I think that is a problem." (GP18)

7.14 Attitudes towards the future development of a MMS

GPs were asked to give their views about whether they would support a MMS being rolled out nationally. Mixed views were obtained, with six GPs stating they would support a MMS being rolled out as they believed community pharmacists could have a larger role in reviewing patient medication. They believed this would benefit patients and improve working relationships between GPs and community pharmacists. As a result of this project, one pilot site was currently undertaking a second medicines management project within their area. Seven GPs had mixed views as to whether the MMS should be rolled out for a variety of reasons. Two of these GPs believed that there were other projects that would be more beneficial to conduct nationwide, for example increasing the availability of the emergency hormonal contraceptive pill. The other GPs had concerns about the current model not working, particularly around access and communicating clinical information. Three GPs stated that they would not support a national roll-out of the MMS because they were not convinced this type of service was required in practices, it was not deemed to be a priority and this model did not encourage medicines management to be undertaken as a team. The following quotes show a range of views obtained from GPs about the future development of a MMS

"I can't see how it would damage the relationship between us I think it would actually bring us closer together and I think it would be beneficial to the patients." (GP08)

"I see we have to improve medicines management as a team and I think having some separate project makes it worse not better, it is yet more paper, yet more bits, and you think...and actually it distracts you from

looking at the process as to how you manage medicines. How do you decide who gets managed by the pharmacist and who gets managed by the doctor?" (GP18)

Over half of the GPs believed that if a MMS service was rolled out nationally and became a long-term service then it should be the PCT's responsibility to fund this type of service rather than the GP practice.

"Oh right, no PCT! We have difficulty enough extracting money for us without sharing it with anybody else!" (GP19)

The majority of these GPs deemed a community pharmacist-led MMS to be a low priority for their practice if they had to fund the service. A variety of reasons were given including too many other things within their GP practice that needed addressing first, a practice pharmacist was already in place to do this type of service, not needing a pharmacist in the practice to review medicines because they were under-spent, and rating other members of the GP practice as more important than employing a pharmacist. The following quotes illustrates how a GP believed funding a receptionist for their practice was a higher priority than having a community pharmacist conduct a MMS.

"But I mean in terms of getting this pot of money we are going to get in the future to run our practice I think the priorities for funding a pharmacist would be less than having a receptionist on the desk to see a patient."
(GP17)

Although the majority of GPs were not opposed to the concept of a MMS being rolled out nationally, these data suggest that the GPs did not view a

MMS as high priority or a necessity within their practice if they had to fund the service.

7.15 Summary

Almost all the GPs stated they currently had a good relationship with the community pharmacists in their areas. However, the data suggested that when GPs had a particularly established working relationship, the GPs were more likely to be positive about community pharmacists' roles in medicine management.

Whilst no GPs completely rejected the idea of a community pharmacist led MMS, they identified a number of attitude and organisational barriers that could prevent them from undertaking this role. These barriers included beliefs about the expertise of the pharmacist, their commercial interests and how this affected their clinical advice, potential communication of clinical recommendations and concerns over fragmentation and responsibility of patient care. There were also considerable barriers held by GPs towards community pharmacists having access to patient's medical records.

A third of the interviewed GPs stated they currently had a practice pharmacist attending their practice. Although GPs were generally unable to explain how practice and community pharmacists differed, they were able to give an explanation by using task differentiation. These results demonstrated that the GPs interviewed had built a good working relationship with their practice pharmacist and as a consequence, practice pharmacists currently undertook a variety of clinical roles within the

practice. GPs were also more willing to let practice pharmacists have access to patients' medical records. These data suggested that participating GPs viewed the practice pharmacist's clinical abilities as different to that of a community pharmacist and perhaps as something unique to them. This finding supported Adamcik et al (1986) theory of clinical pharmacists being perceived by GPs as 'deviant' pharmacists.

These data also suggested that this project had a minimal effect at improving relationships between the participating GPs and community pharmacists and in many instances GPs' perceptions of community pharmacists remained unaltered. This may have been due to the identified issues surrounding communication between the two professions and the minimal input that some GPs had in the project, which was confirmed by the lack of attendance to meetings and letting the practice pharmacist deal with recommendations sent by the community pharmacist.

8. COMMUNITY PHARMACISTS' OVERALL EXPERIENCES OF UNDERTAKING COLLABORATIVE WORK WITH GPs

8.1 Introduction

This chapter presents data from twenty-eight telephone interviews with community pharmacists, conducted at the end of the twelve-month intervention period. The interviews were carried out between January and February 2004. All the pharmacists interviewed had completed patient consultations, although the number of consultations conducted ranged from two to forty. This allowed all the interviewed pharmacists the opportunity to report their experiences.

The first part of the chapter reports the data that focused on how the MMS had affected the relationships between the participating pharmacists and GPs. Pharmacists were also asked to comment whether they believed the project had altered GPs' perceptions of community pharmacists, and whether having a prior established relationship with the GP had impacted on the success of the project. The interviews also explored pharmacists' general assessments of the MMS, as well as their achievements from taking part in the MMS and the follow-up undertaken of patients over the twelve-month intervention period. Finally, the barriers and difficulties encountered throughout the project were investigated. These data have been reported in the second part of the chapter.

Finally, in the last part of this chapter, pharmacists were asked to share their views about whether the medicines management model was sustainable in clinical practice on a long-term basis. As with the previous two results chapters, I have used numbers to help quantify and support the points that I have reported. The key themes are reported in the following sections.

8.2 Community pharmacists' relationships with GPs

Pharmacists were initially asked to comment whether they thought being involved in the MMS had affected their relationship with the local participating GPs, and whether they thought the project had enhanced their status as a health professional to the GPs. Finally, they were asked to comment whether they believed having an established relationship with their local GPs impacted on the success of a MMS.

As reported in the earlier pharmacists results chapter (refer to chapter 6), twenty two pharmacists reported they had a good, or satisfactory working relationship with their local GPs prior to the MMS commencing. The remaining pharmacists stated they had dealt with GPs in the project that they had no prior relationship with. Sixteen pharmacists thought that as a result of being involved in the MMS, their relationships with some of the participating GPs had been enhanced to some extent. In these instances, the majority of these pharmacists stated that relationships had often only improved slightly, and had usually only improved with one or two GPs in a practice. This was usually due to the fact that these GPs had been designated to deal with the MMS intervention forms, and therefore were the only GPs that they had had contact with. Three pharmacists thought

that relationships had particularly improved with GPs that they had previously not known very well prior to the project commencing.

"I'd got a fairly good relationship with them but, yes, I would say probably with the ones that I wasn't quite so familiar with, yes." (P02)

Four pharmacists stated that as the project had allowed them to meet in a semi-social environment, it had encouraged communication between the two parties and this had resulted in their relationship with their usual GPs improving.

"I think it has. I mean we have had two or three main meetings with the GPs that were on board so we have seen them more in a social, semi-social atmosphere and then just through the post-consultation referral process, again you feel you have got to know them more. Yeah certainly, I mean quite definitely know the ones that were on board better than I knew them before." (P21)

Some pharmacists believed that as a result of their relationship improving with their local GPs, it was now easier to contact and convey information to them. Three pharmacists also believed that due to GPs gaining experience of receiving recommendations from community pharmacists, it had had a positive effect when they made clinical recommendations on patients not involved in the project. Muijrrers et al (2003) concluded that improving the relationship between GPs and pharmacists would have a significant, positive effect on the attitude of GPs towards the pharmacist's care-providing function. The following quote illustrates this point.

"I just feel that I can pass on information to them more easily. You know it's easier to get hold of them, contact them and through this experience, knowing the kind of training I have now had and I've had in this particular clinical area, they are willing to accept any comments or recommendations that I have for other patients outside of the project." (P04)

However, eight pharmacists thought the MMS had little impact on altering their relationship with their local GPs, largely because they had very little contact with them during the project. This resulted in their relationship remaining the same, which in some cases was stated to be good. The following quotes illustrate these thoughts.

"I wouldn't say it's made much difference." (P10)

"I've not got a bad relationship with them, far from it. I just didn't have any contact with the GPs. I mean ok I was filling the forms in but I actually got the impression the GPs were very sorry they had ever got involved in it." (P38)

On the other hand, two pharmacists thought the MMS had a negative impact on relationships between pharmacists and GPs. This was mainly due to the poor organisation and time delays associated with the project having an adverse effect on the participants.

"I think it could have easily been handled a lot better and basically the relationships between pharmacists and GPs weren't improved, and in many aspects it had an adverse effect." (P34)

Two pharmacists thought their relationship had improved with the participating practice's staff rather than the GP, as they had mainly dealt with these members of the practice and not the GP during the project. Likewise, three pharmacists stated that they had generally dealt with the practice pharmacist throughout the project, and as a result their relationship with the practice pharmacist had improved.

"I wouldn't say the relationship between the GPs and myself had improved that much but possibly between myself and the surgeries if I can make that distinction...But also the practice pharmacists - we were dealing with them as well, so it did develop the relationship with the practice pharmacist and myself, maybe not necessarily the GPs." (P06)

The data suggests that just over half of the interviewed pharmacists believed that relationships with some of the participating GPs had improved to some extent, whilst the rest believed it had made no impact or had an adverse effect on their relationship. In many instances, increased communication was the reason stated as to why relationships had improved.

With regard to the MMS raising the pharmacist's professional profile relative to the GP, seven pharmacists believed this had occurred to some degree. These pharmacists believed because they had had the opportunity to liaise with GPs and make clinical recommendations, this had demonstrated to the GP that they had appropriate clinical training and knowledge to undertake patient consultations. In one instance, a pharmacist reported that their local GP practice had approached them to undertake PCT work.

"I mean its been a way of introducing myself not just as the community pharmacist that works alongside them next door but its somebody who can get involved with, in helping them through certain reviews and stuff like that which they've obviously picked up on, and they want me to be their regular PCT pharmacist now." (P41)

In contrast to this, three pharmacists stated they already had a lot of contact with their local GPs and thought their local GPs already perceived them as a health professional. Therefore the MMS had had no impact on altering this perception. The remaining pharmacists however, believed the MMS had made little or no impact on how GPs perceived them. This was largely because they had either encountered uncooperative GPs, or there had been a lack of opportunity to make clinical recommendations from the patient consultations. The following quotes illustrate this.

"To be honest I don't think GPs view me any differently unfortunately. You know it would be nice to think that they perhaps thought a bit more of pharmacists but I don't feel I've progressed in that quarter at all." (P40)

"Very slightly, very slightly. I think the issue that we just had of raising their awareness of what we could do, that's good but like I say the actual communication from the GP was not brilliant in most cases. So my particular experience is yes it has raised my profile slightly." (P39)

The data suggests that if the pharmacist had the opportunity to increase their contact with GPs, or had the chance to demonstrate they could make clinical recommendations then this raised their profile to the GP. Again, this demonstrates the importance of increasing the contact between community pharmacists and GPs.

Twenty three pharmacists thought having an established relationship impacted on the success of a MMS. Pharmacists believed that if the GPs already knew the pharmacist, they would be more likely to trust them and respond to their recommendations. Contacting GPs was also thought to be easier if the GP already knew the pharmacist, therefore making it easier to discuss patient issues. Likewise, pharmacists thought GPs were more likely to share information about patients if they knew the community pharmacist. Pharmacists also commented that they found it less threatening to make suggestions if they knew the GP because they knew how the GP would react to their suggestion. The following quotes illustrate this.

"I just feel if they have got trust in the pharmacist, they are much more likely to take these things on board and share various factors, you know, across the telephone or face-to-face." (P21)

On the other hand, four pharmacists were unsure whether an established relationship did impact on the success of a MMS. Pharmacists reported they had not needed to speak with their GPs during the MMS (so their relationship with them had not altered) and their clinical recommendations had been followed. However, they acknowledged GPs might be more receptive to pharmacists' recommendations if they knew the pharmacist involved.

"I wouldn't think it would be essential to have a good relationship but if you did it would help because at least they might take a bit more notice of forms that you send to them or if you had to speak to them. But I didn't actually have to speak to them about anything. But I think actually GPs can be quite shirty with pharmacists, they phone them up about things, so I think if you've got a good relationship in the first place then at least you're not going to have that barrier to overcome." (P38)

Only one pharmacist thought that having an established relationship had no impact on the success of a MMS, as they believed relationships could be built. Again, it was acknowledged by this pharmacist that it might be easier to carry out this type of service if there was an established relationship already in place between the pharmacist and GP.

"No, I think you can build them. I think it makes it easier if you're got a good relationship because the contact's easier, you're more comfortable with it and they already know you and whether or not they trust you, your opinion. I think you can build that with somebody else so no, I don't think so." (P02)

These data indicate that the majority of pharmacists believed that having an established relationship with the GP increased the success of a MMS. This suggests that it is imperative for community pharmacists and GPs to communicate more and develop relationships if community pharmacists are to undertake a medicines management role.

8.3 General assessment of the MMS

In each of the interviews, pharmacists were asked to give their overall impression of the MMS and to summarise their experiences of participating in it. Eighteen pharmacists had a positive overall impression of the MMS, and there were strong pockets of support for the MMS in three of the nine pilot sites.

"It has been extremely interesting; it has been a great learning process for my colleagues and I to have time to speak with the patients because we work in a very busy dispensing store, well two stores in my case. We have very little time to actually sit and spend with patients and it has been really, really good to do that." (P39)

Although there were indications that pharmacists had encountered some practical difficulties with the MMS, pharmacists generally thought the MMS had been interesting, rewarding and a good opportunity to improve their clinical knowledge. It had also allowed them the time to speak to patients in-depth, which often did not occur in their usual working day.

Eight pharmacists had a mixed impression about the MMS, stating the concept of the service was good but practical issues such as lack of GP support, conducting few patient consultations and insufficient patient clinical information had impinged on the success of the service.

"I thought in theory, it was really, really good but in practice I found that it didn't really work for me." (P26)

Two pharmacists had a negative overall impression of the service as they had found the organisation of the project had had an adverse effect on the participants involved, and it had not improved relationships between pharmacists and GPs.

"I think it waned as it developed!" (P36)

Likewise, almost all the pharmacists saw their involvement in a MMS as a positive experience, even though some had experienced practical difficulties such as time delays, lack of patient consultations and uncooperative GPs. The following quote illustrates this.

"Well it's been positive in that I've been able to work with the GPs and nurses and also I've been able to get involved in other things because of the medicines management project, in different schemes that are running in the area, just because I felt I'd built up the confidence, built up confidence in this part of my work which means I can just get involved in other things." (P04) .

One pharmacist however, stated they saw their involvement in the MMS as both a positive and negative experience. The positive aspects had been interviewing the patients and receiving GP's feedback, but the time delays experienced and the intervention forms being badly designed were seen to be negative aspects.

The data suggests that the majority of pharmacists were positive about being involved in the MMS and saw the opportunity to participate in it as a positive experience

8.4 Motivation and achievements gained from undertaking a MMS

As reported in the previous pharmacist results chapter (refer to chapter 6), the main motivational factor to become involved in this MMS was the opportunity to extend and develop the community pharmacist's role. Pharmacists hoped by participating in the MMS they would have an opportunity to have a greater clinical role and build relationships with patients and their local GP practices.

Pharmacists were therefore asked to comment on what they had achieved by taking part in the MMS and whether they had achieved all of their objectives. Seven pharmacists thought they had learnt new skills and as a result their clinical knowledge on CHD had improved. For one pharmacist it had given them more insight into the problems patients faced with their medication, and one pharmacist thought they were now a bigger part of the primary health care team as a result of participating in the MMS. Five pharmacists thought they had achieved more confidence and job satisfaction, particularly when having to converse with patients and GPs. One pharmacist in particular believed that patients' confidence had increased in them as a result of participating in the MMS, as illustrated by the following quote.

"Also has increased my confidence you know and also it has increased the confidence the patients have in me." (P27)

When pharmacists were asked if they had achieved their objectives, ten pharmacists stated they had not achieved them. A variety of reasons were

given, including the pharmacist not having the opportunity to conduct many patient consultations, not having the opportunity to have much clinical input into patients' medication regimens (as they were already on an appropriate regimen of drugs and following lifestyle advice), having uncooperative or uninterested GPs and personal circumstances, such as having to leave the project early. The following quotes illustrate this.

"Well no because we didn't see enough patients for that." (P19)

"I think that as I say the one thing that I would have liked to have come out of it would be that a little more I suppose respect is the word, from GPs." (P40)

Pharmacists were then asked to comment whether they believed that there was a need for MMS, as their feedback had indicated that they had not seen many patients, or made many clinical recommendations. Despite this, over half of the pharmacists thought that community pharmacists should be providing a MMS, as they believed there was a need for medicines management and their clinical training was under utilised in their current role. The following quote is from one pharmacist who despite not seeing many patients in the MMS, states that there that is still a need for the service.

"I think there is a definite need for medicines management. I think it has been there for far too long and as pharmacists in general we have been meek to show our capabilities." (P05)

However, two pharmacists stated that it should be the choice of the individual pharmacist whether or not to undertake a MMS. They

acknowledged that there would be a time commitment to undertake this role and it could prevent the community pharmacist from conducting other roles, which a pharmacist might consider to be more beneficial to the patient. Likewise, there would be some community pharmacists that would not wish to undertake this role.

"I think it depends on the community pharmacists themselves because I mean there would be some people who would be happy to do it and some people who probably wouldn't." (P43)

Despite some pharmacists not achieving personal objectives whilst undertaking the MMS, pharmacists were still positive about the concept of a MMS.

8.5 Community pharmacists' relationships with patients

At the beginning of the MMS, pharmacists cited the most significant benefit to providing a medicines management role was the opportunity to have a greater input into patient's care (refer to chapter 6). Pharmacists were therefore asked to comment how the MMS had impacted on their relationship with patients over the twelve-month intervention period, and whether their status as a health professional to patients had increased. Nineteen pharmacists stated new patient relationships had been established and their relationships with existing patients had improved as a result of participating in the MMS. Seven pharmacists commented that patients involved in the project were now returning to their pharmacies to ask them more clinical questions.

"Oh it has with them particularly yes, I mean they come in now and we talk to them specifically, you know, because they come and ask you know more things so yes, it's good built up the relationship." (P10)

One pharmacist had seen patients they had previously not known, as these patients did not normally use their pharmacy¹¹. They believed the relationship that could be built between a community pharmacist and a patient was easier and more beneficial, if the pharmacist knew the patient, as it would support a relationship to develop over time. Two pharmacists did not think the MMS had impacted on their relationship with their patients because the consultations had been a one off event.

"I don't think it has made a deal of difference, I think the reason for that is because this is a bit of a one off thing." (P25)

Nineteen pharmacists also thought this service had enhanced their status as health professionals in patients' eyes because it had given patients the opportunity to see the pharmacist having a more clinical role. Even though pharmacists thought they had a good relationship with their patients, they thought some patients perceived them as shopkeepers or dispensers and believed patients did not realise that a community pharmacist could undertake medication reviews. The following quotes demonstrate this.

"I think they were quite surprised that we have the knowledge and we were even engaging in sort of cooperation with the GPs on this. So yeah, I think there was generally the view was that 'oh I didn't realise you would be able to do this!' " (P21)

¹¹ Some patients had a medication review conducted at a pharmacy they did not generally attend, due to their usual pharmacy either not being involved in the project or being oversubscribed.

"Well I already had quite a good relationship but I think its helped in terms of them seeing me as a professional person rather than a shopkeeper if you like." (P44)

Three pharmacists did not think this service had enhanced their status as a health professional to patients. One pharmacist had seen so few patients and another thought the service had had little impact. Both these pharmacists acknowledged if they had seen more patients or if the service had been ongoing that might have changed. The third pharmacist believed their patients already saw them as a health professional.

"To be honest where I am personally concerned I don't think it has done an awful lot in that respect purely and simply because I think, I'm not trying to sound big headed, but I think the patients here, it is a village environment and I think the patients basically treat me with professional respect anyhow." (P28)

The data suggests that the MMS had a positive effect in helping to build and strengthen the pharmacist/patient relationship. It also had a positive impact in raising community pharmacists' professional profile, in that patients had the opportunity to see a community pharmacist undertaking a medication review. This perhaps suggests that because community pharmacists primarily spend their time dispensing medication, patients have no perception that they have the capability to undertake a more clinical role.

8.6 Patient medication reviews

Pharmacists were then asked to provide their views about whether they believed their medication reviews had impacted on patients' knowledge about their medication and disease states. Over half the pharmacists thought their consultations had a limited impact on a patient's understanding of health promotion messages and their disease state. They believed this was due to the majority of patients seen to be well educated and motivated in these areas; therefore pharmacists believed they were often just reinforcing the information. This finding was reflected in the earlier pharmacists' data chapter (refer to chapter 6), whereby pharmacists stated that they had only reviewed motivated patients who required little pharmaceutical input.

"Well some of them were very aware of them so you know it was a bit like teaching your granny to suck eggs." (P02)

Likewise, pharmacists thought many of the patients seen were already very compliant with their prescribed medication so often they could have little impact in this area too. Although it was acknowledged that patients were generally compliant with their medications, pharmacists still believed it was worthwhile checking compliance as patients sometimes took medication incorrectly. This was reported to be usually due to a poor understanding as to why a patient needed to take a particular medication and the long-term benefits of complying with it. The pharmacists also believed the patients had enjoyed the opportunity to talk to another health professional and their understanding of their medicines had probably improved, which could in turn help patients make an informed choice about taking their medication.

"I think that information allows a patient to make an informed choice and also to be able to say if you're not happy with the medication you're on then you should go back and have a word with your doctor or lets talk about it now." (P29)

Pharmacists believed that patients perceived their consultations differently to a GP's consultation, notably as having less power and more time than a GP (as reported in Chapter 6). There was a general agreement that patients were often more likely to speak to them about issues they would not talk to their doctor about. Pharmacists thought this was probably due to the patient finding them more approachable and less intimidating than the GP, and patients did not worry about 'pleasing' a pharmacist regarding their medication. However, one pharmacist also thought patients would not be truthful with the pharmacist regarding whether they took medication because the consultations were formal.

"I think even, because it's still formal sitting down with you know me doing it, they still wouldn't admit you know to a lot you know." (P10)

One pharmacist stated they had concerns that if they tried to make their patient consultations too formal then patients would start to feel intimidated and would not discuss issues with the pharmacist.

"I worry that if we formalise things too much then we lose the possibilities of keeping that intimate trust certainly that I have managed to build up with those patients. If we started to edge towards a GP style, come into a separate room with the door closed, tell me all about it, it gets a bit scary and I think they won't open up as much". (P05)

Pharmacists were also asked to comment whether they thought a thirty-minute patient consultation could have an impact on a patient's health. Five pharmacists thought that a thirty-minute consultation could have an impact, providing the pharmacist had adequately prepared beforehand. However, it was acknowledged that patients would get more out of the consultation if there was a prior relationship between the pharmacist and patient, so the pharmacist did not have to spend time introducing themselves and explaining their role.

"But as I say if the pharmacist has prepared adequately beforehand then I think you can achieve a lot in thirty minutes. I think to prolong it unnecessarily is actually going to be counter-productive because we are asking the patient to give up their time and if you end up keep getting them back and going round in circles or whatever, then they are going to lose confidence." (P28)

On the other hand, some pharmacists thought that in order for it to have an impact, then it needed to be an ongoing process where patients were followed up at regular intervals. Pharmacists gave different time intervals that they believed were adequate time frames to have an impact. These ranged from seeing the patient four times after their initial consultation, to an annual, thirty-minute interview, to it being an on-going process.

"My view is medicines management is an ongoing thing and can be practiced anytime the patient comes in. Again an informal chat with somebody as their repeat medication goes out could then turn into 'Look we need to talk about this a little more. Come back at a quieter time and we'll sit down and go through something'." (P05)

The data suggests that pharmacists believed their medication reviews could have an impact on a patient's health, although there were mixed opinions regarding how often medication reviews should be conducted. However, if pharmacists are to undertake medication reviews as an ongoing service then they need to be able to commit and allocate time to undertaking this role.

8.7 Clinical follow-up with patients over the twelve-month intervention period

As reported in chapter 3, it was left up to the discretion of the pharmacist to follow up the progress of the patient over the twelve-month intervention period, determining the number of subsequent consultations based on the need of the patient. Pharmacists were therefore asked to provide feedback on whether they had followed up patients with subsequent, patient consultations. Four pharmacists reported that they had arranged formal, subsequent meetings with some of their patients to follow up their progress. Two pharmacists reported that they had followed up their patient's progress by telephone rather than a face-to-face meeting.

"Well what I've tended to do is give them a phone call just to chat about, well that's what I'm doing for them now actually, but about a year on or sort of ten months on, just to check what's going on. But I mean I've followed them up from the initial if there's any action to change. I've followed them up then and told them what the doctors agreed to, and then I've left it to follow up about a year on." (P09)

Fifteen pharmacists reported that they had followed patients' progress opportunistically when patients had come into the pharmacy to pick up their repeat medicines.

"I mean I've spoken to them obviously because they're in and out of the pharmacy anyway and we have spoken about the day that we came and sat and told you about our tablets." (P44)

Pharmacists also stated they had not followed some of their patients up during the intervention period. Six pharmacists reported that they had not had time to do formal patient consultations, particularly if they did not have a second pharmacist in place or had not received allocated cover. Seven pharmacists stated that they did not see the need to follow up their patients with a formal consultation, because with some of the patients they had not made many recommendations in the original consultation.

"I don't know that there was a definite need with a lot of the ones that I had to do. So I mean there were some of them that I didn't actually make any recommendations on because I felt that what they were on probably was what they should have been on anyway." (P43)

Eight pharmacists stated that they had not received recommendations forms back from the GPs. This therefore it made it difficult to follow up patients.

"It was quite difficult really because if you hadn't had an intervention form back you know and quite a lot of them nothing happened anyway to what they were already on." (P18)

Three pharmacists stated they did not realise that they were supposed to be formally following up patients over the twelve-month intervention period. Four pharmacists also thought if formal, follow-up consultations had been required with every patient, then the payment they received during the project might not have been adequate. It was acknowledged that following up patients formally was potentially very time consuming. The following quotes illustrate this point.

"I mean I suppose the payment, if you had to do another hour and you know, another formal interview with every patient it would start being less attractive but with the phone follow up and the GP follow up plan and what have you, it's about right." (P09)

On the other hand, one pharmacist thought pharmacists should not receive a payment for providing a MMS. They believed community pharmacists should have been providing this type of service anyway as part of their day-to-day role.

"I think that's part of the job I really do and it should just come under the globalism and to get additional fees it's wrong." (P05)

The data suggests that few pharmacists had followed up patients over the twelve-month intervention period with formal interviews. Whilst there were legitimate reasons such as, patients not requiring them there was also indications that they were not conducted due to time issues and inadequate remuneration. This again questions how committed some pharmacists were to undertaking this role.

8.8 Difficulties encountered with the MMS

After providing an initial assessment of the MMS, participating pharmacists were asked to identify any difficulties they had encountered throughout the twelve months of conducting the MMS. The difficulties identified were similar to those reported at the beginning of the project (refer to chapter 6), in particular lack of access to patients' medical records and lack of GP engagement. These factors continued to be troublesome throughout the twelve-month intervention period.

8.8.1 Access to medical notes

Twelve pharmacists reported that lack of access to patient's medical records was the biggest barrier they had encountered whilst undertaking the MMS. As previously reported, the lack of clinical information and sometimes inaccurate information received, had occasionally limited the pharmacist's ability to carry out an effective medication review. Two pharmacists reported that as their pharmacy was situated near to the GP practice they were able to go in to the practice and get the extra clinical information they sometimes required.

"What they did at the surgery next to where the majority of my patients come from, they had a receptionist there designated to the medicines management project to help me out so I could pop in at any time and actually get the medical information that I needed." (P04)

However, four pharmacists thought the only solution to this problem would be electronic links to the GP practice to obtain the clinical data, as their

pharmacies were not situated close enough to the practices for them to regularly visit and look at patients' medical records.

Lack of clinical information and access to patients' medical records continued to be a barrier for some pharmacists to conduct a full medication review. However, once more the data suggests few pharmacists had taken the opportunity to go into GP practices and access the clinical information they required.

8.8.2 Reflections on GPs' involvement with the project

Seven pharmacists thought the lack of support from the participating GPs had been the key difficulty they had encountered whilst undertaking the MMS. Pharmacists believed that the GPs had not taken the project seriously and were frustrated and disappointed by their lack of support. The following quotes demonstrate the views held by the pharmacists.

"I think it's frustrating that you know they perhaps didn't take the thing seriously from the word go." (P40)

"But as time went on I became more and more disappointed with the lack of response from the GPs." (P05)

One pharmacist thought if the participating pharmacists and GPs had met before the MMS commenced and established their objectives together then this might have helped reduced the problems experienced. The work of Chen et al (1999a, 1999b) has highlighted the importance of allowing GPs and community pharmacists the time to meet in a semi-social

environment, to help try and build relationships before commencing collaborative work together.

"I think the health service, the system as it is GPs, PCTs all across the board don't respect and know what community pharmacists can do. They do see on a weekly basis maybe a practice pharmacist come in and do a particular job but that's their only real exposure to a pharmacist, other than a pharmacist phoning up and complaining they have made an error on a prescription. So I feel more should have been done before hand to bring maybe the GPs and the pharmacists together to plan what should have gone on." (P05)

It was also acknowledged by three pharmacists that unless they had the cooperation of the GPs, this type of service would not work as it was important to be giving the patient a consistent message.

"You need the cooperation. There's no point the pharmacist being in disharmony with the local doctors, to have credibility you've got to be singing the same tune to the patient." (P10)

Despite repeatedly chasing up the recommendation forms, pharmacists reported that it often took a long time to receive feedback from the GPs and there were occasions when they did not receive any feedback. In some instances they never received the recommendation forms back as they had gone missing.

"We'd passed it along to a GP but we got very little feedback from that, from them you know. Papers would be lost, requests when we tried to

follow it up, it was difficult to get appointments with the GPs to be perfectly honest.” (P36)

“I got one back (recommendation form) with this sort of ridiculous comment on it and then all the rest just disappeared in to oblivion despite chasing.” (P40)

One pharmacist reported that they had received out of date clinical data, such as blood pressure and cholesterol readings. When they had contacted the practice to obtain the up-to-date clinical laboratory values, the practice nurse had refused to give them to the pharmacist as it was duplicating their work. As a consequence they were unable to make any clinical recommendations because they were unable to obtain up-to-date values.

“And I phoned up to speak to the practice nurse and I was told it was duplication of her work and she wasn’t willing to give me the values.” (P26)

Pharmacists were then asked to comment whether GPs had followed their clinical recommendations. Eight pharmacists reported that they had often not received the recommendation forms back from the GP practices, so they were unable to comment whether their recommendations had been followed. Five pharmacists thought all their recommendations had been followed. Fifteen pharmacists reported that the majority of their recommendations had been followed, with reasons given by the GP if the recommendations were not acted upon.

"I'd say the vast majority were followed up and the points were addressed and, as you say, if there were reasons why the GP had another idea, whatever it was that it was documented and I was told." (P04)

In addition, it was acknowledged by three pharmacists that they had received intervention forms back more quickly when they knew the GPs involved.

"Most of the interventions were actioned and because we were sitting down with a doctor next to me and went through it obviously got immediate feedback which again I think helps. It is probably the best way of getting the feedback. I mean interestingly with the GPs from different surgeries that I didn't sit down with, they took a lot more chasing up. It was interesting, but where there was already a relationship there, it was you know, ten times easier than if there wasn't you know." (P09)

One pharmacist stated they had received unhelpful feedback from the GPs

"Just having little replies like 'we know this already' exclamation mark, it was like if you know this already why haven't you acted on it?" (P05)

Two pharmacists stated some clinical recommendations were not followed because they were inappropriate for the patient. Pharmacists acknowledged that their recommendations had been inappropriate but stated they had made the recommendations because they were unaware of some imperative clinical information about the patient. The following quote illustrates this point.

"Yes for instance there was one I asked if they could be placed on an ACE inhibitor and the feedback came that because she had some kidney problems in addition, and that wasn't in the notes that I saw you see, so they told me why they wouldn't, you know want to do that." (P27)

Despite reports that GPs did not reply to pharmacists' clinical recommendations, the data suggests that good levels of communication between the community pharmacist and the GP, correlated to the most satisfactory reports from pharmacists surrounding the feedback of intervention forms. Likewise, it was acknowledged by some pharmacists that to help try to increase GP engagement then better communication with them could have helped. However, there is no indication from the data that community pharmacists had taken the initiative to try and increase communication with GPs.

8.8.3 Time constraints

Seven pharmacists stated that time constraints had been a difficulty they had encountered. This was particularly pertinent after the initial patient consultations had been conducted, as they had to set aside time to chase GPs and follow-up patients. In many instances they had not received allocated cover to undertake these tasks.

"Sort of allocating the time and having a busy shop to run as well, to chase up the doctors and follow up the patients. I found it ok to get the initial interviews all done; I didn't find any problems there because I had allocated cover. But the actual phone calls and chasing up and trying to find out if interventions had been done, I didn't find that I had the time to do at the moment." (P26)

Likewise, four pharmacists had found that not having a second pharmacist had made conducting a MMS difficult because they were unable to follow up patients opportunistically.

Time constraints and having a second pharmacist were once again seen as a barrier to undertaking a MMS (refer to chapter 6), this suggests that until these organisational constraints are addressed some pharmacists would be unable to undertake a MMS fully.

8.8.4 Practice Pharmacist in situ

Pharmacists stated when GPs employed a practice pharmacist they had found little opportunity to recommend anything for patients and were often just duplicating work already carried out by the practice.

"The other issue we had was that a lot of the surgeries already had a practice pharmacist in them, which meant things like everyone was on aspirin was already done and I found that if you were going to go in to certain surgeries in my area I'm sure there are a lot more things we could have picked up on, but because we were working for surgeries who are far thinking, who have got practice pharmacists in, they basically done the job we were trained to do and that's what I found a little disappointing." (P06)

When pharmacists identified that the local GPs participating in the project had a practice pharmacist they were asked to comment whether they thought there was a need for a community pharmacist to conduct a MMS. Five pharmacists believed there was still a need for a community pharmacist to conduct a MMS because practice pharmacists often had

limited patient contact and the community pharmacists believed the patients had benefited from the interview.

"It depends what the practice pharmacist is doing I think. I think that if it's capable of doing it as we are but I think we're more easily accessible sometimes and depending on the background, the OTC to take into account. So if some practice pharmacists only do well, audit work or, you know, prescribing work they don't always do the interviews with the patients. So I think that's different." (P02)

However, it was acknowledged if there was a practice pharmacist in place then community pharmacists might want to focus on particular aspects during a patient review to prevent duplication.

"Yes but you might not want to do the whole thing. You might actually just want to interview the patient and work on compliance and how well they're getting on with their medicines." (P31)

Two pharmacists stated if the local GPs had a practice pharmacist in place then it was difficult for a community pharmacist to conduct a MMS because it was duplicating work already carried out within the practice.

"I think you're dotting the 'Is' and crossing the 'Ts'. I don't think there's a lot of scope there." (P36)

There was mixed opinions from community pharmacists whether there was a need for them to undertake a MMS if there was a practice pharmacist in their local GP practice.

8.8.5 Other identified barriers to undertaking a MMS

There were a number of other barriers to undertaking a MMS identified by the participating pharmacists during the course of the interviews. One pharmacist thought the biggest difficulty had been their lack of clinical knowledge and this would be a barrier for community pharmacists undertaking this extended role unless training was received.

"I think the only thing is the clinical knowledge barrier, you know. It obviously needs to be well learned." (P21)

Three pharmacists commented the lack of space had been a difficulty encountered, as patient consultations often had to be held in upstairs offices which was often difficult for older or CHD patients to reach.

"It wasn't ideal in the fact that the only room that we had available is upstairs and at the opposite end so you had to go up a flight of stairs and walk the full length of the store to the front of the shop again, so it's quite a considerable walk for somebody who has got angina." (P43)

Three pharmacists thought they had received a lack of company support throughout the MMS, particularly surrounding pharmacist cover to carry out patient consultations. Continuity was also stated to be a problem if pharmacists either worked part-time or in more than one premises. This was illustrated by one pharmacist who had moved stores during the project, resulting in difficulties for the pharmacist to follow patients up as they now only worked at the participating premises two days a week. This was also a difficulty encountered by four other pharmacists that worked

part-time and for one pharmacist that was undertaking the MMS as a locum.

*"My particular problem that I can see is to do with continuity, in that myself and another colleague of mine who operated in ***** area are part-time and so we haven't been able to see these people when they come in for their monthly supplies." (P39)*

This demonstrates that if community pharmacists are going to undertake a MMS on a long term basis and are employed by a company, then it is imperative that the company also engages with the MMS.

8.9 The MMS model in clinical practice

Finally, pharmacists were asked to comment whether they thought this model of medicines management had worked within the current organisational structure of a community pharmacy. Almost all pharmacists thought the model worked within reason but identified a variety of factors (as reported in the earlier part of this chapter) that could be potential barriers against a MMS being conducted. For example, four pharmacists thought that the model would have worked better if they had had access to the patient's medical records, preferably electronically.

"I would think the ideal would be for the pharmacist to actually, eventually be online but to have access to the patient records and actually make their own records." (P28)

Three pharmacists stated they thought the model would have worked better if there had been a second pharmacist present, as it would have

allowed the service to be organised more effectively. Currently some pharmacists were conducting the interviews on their days off, which they acknowledge could not be a long-term commitment.

"Yes, with some reservations. I think you need a second pharmacist to allow you the time. I don't think you can just fit it in and to do it any other way you'd sort of have to give up your free time." (P02)

Three pharmacists believed that a MMS was most ideal when pharmacists were seeing patients already known to them, as it allowed the opportunity to follow up patients on a regular basis when they came into the pharmacy.

"Well I think they need to be people that you deal with on a daily, weekly, monthly basis, not patients that you have never seen before! I don't think you can offer the services easily, you can still do a passable job hopefully but you can't really keep it going." (P25)

Two pharmacists believed the service would have worked better if the patients had been referred by the GPs, as they would have seen patients with identified problems and the GPs may have been more motivated to respond to the pharmacist.

"But the model works well, it would be better if the GP actually felt there was a problem and they were ferrying people in to pharmacies for a block booking, because there would be motivation on their part to improve compliance as well." (P31)

One pharmacist thought they should be seeing CHD patients shortly after they were discharged from hospital with a cardiac event, as they believed this was a critical time to educate patients about their cardiac medication.

One pharmacist thought that inadequate space within the pharmacy would be a problem for many pharmacy premises. Three pharmacists believed that the model would have been more effective if conducted in the GP practice because they believed it was easier to address clinical problems and the patient's notes would be there. Another pharmacist believed that all medical services should be conducted in the same locality.

"I personally think the surgery is probably a better setting.....I really think all medical services should be available under one roof. I mean I think that's the way it should go and pharmacists sitting out on a limb out with the health service, I'm not entirely sure that's tenable in the very long term." (P44)

However, while one pharmacist thought the model of the MMS had worked in the community pharmacy setting, they could see no advantages for community pharmacists to do this type of service if the GPs had time to do it.

"I can't see an advantage of a pharmacist doing it necessarily. If GPs could give patients half an hour, a lot of these things wouldn't occur in the first place if you see what I mean." (P19)

When questioned about whether the service represented value for money for the Government, half the participants thought it had. Two pharmacists believed it would have been better value for money if they had had closer

collaboration with other members of the primary health care team so they were not spending time on areas already covered by other members of the primary healthcare team.

"Yes, though I wonder if it would be better enhanced if we were much more aware of the total team effort in terms of diet and nursing standards, and it was quite difficult to get information about some patients seemed to have already had intervention from stroke clinics and rehabilitation clinics and we were reinforcing messages." (P31)

Seven pharmacists were unsure whether this service had represented value for money, as they had often made few clinical recommendations on patients but had still needed to pay for locum cover. One pharmacist was unsure whether it represented value for money as the majority of their clinical recommendations had requested the addition of medication, so patients were complying with the NSF guidelines. Three pharmacists stated that they did not believe this service had been value for money as they had conducted few patient consultations and made few clinical recommendations. One pharmacist stated although they did not think the service had represented value for money with the patients they had seen in this project; they could identify patients where a MMS would have been cost effective.

"With the patients I had on the study not so much, but I can think of hundreds of people that I'm dealing with regularly that I could make a huge impact on, which obviously then would." (P40)

Pharmacists were finally asked to comment on whether they would be interested to participate in other community pharmacy projects that were

focusing on service development. All the pharmacists interviewed said they would be interested in taking part in future projects providing they had company support and time to complete the project.

8.10 Summary

Community pharmacists identified the key barriers to undertaking a MMS as lack of GP engagement, lack of access to patients' medical records and organisational barriers, such as lack of consultation space, time and financial constraints, not being situated near the GP practice and requiring a second pharmacist to effectively conduct a MMS. These were identified as barriers throughout the course of the project.

Lack of GP engagement often had practical consequences for the pharmacist. Lack of feedback from the GP made it difficult for the pharmacist to follow up patients, which sometimes had an adverse effect on the patient's confidence in the pharmacist. It also caused considerable frustration and disappointment for the pharmacist. Bradshaw and Doucette (1998) argued that the reactions and attitudes of GPs could either hinder or facilitate the expansion of the pharmacist's role. Likewise, Mrtek and Catizone (1989) argued that community pharmacists would only embrace more clinical roles when other health professionals were at hand, with whom they could interact as respected peers.

Lack of GP engagement, along with geographic isolation often resulted in minimal contact between the two professions and this may have explained the limited impact the project had in improving relationships significantly and attitudinal perceptions between community pharmacists and GPs. Work in Australia (Chen et al, 1999a, 1999b), has highlighted the importance of

breaking down professional barriers prior to community pharmacists and GPs undertaking collaborative services. Likewise, Bradshaw and Doucette (1998) argued that lack of face-to-face contact with the rest of the primary healthcare team was a considerable barrier to pharmacists taking on new roles.

The importance of having a good relationship with the GP in the MMS was reflected by almost all pharmacists stating that having an established relationship with the GP impacted on the success of a MMS. Pharmacists stated that by either having an established relationship, or improving relationships with GPs had had a positive effect on the GP's attitude towards the community pharmacist's clinical capability. Likewise, pharmacists acknowledged that when they did have the opportunity to meet with their local GPs this allowed them to build relationships with them and made contacting and conveying information to the GPs much easier. This finding is supported by the literature, which suggests that improving the relationship between GPs and pharmacists could have a positive effect on GPs' attitudes towards the pharmacist's clinical role (Chen, 2001b; Muijrs et al, 2003). However, whilst pharmacists acknowledged the importance of establishing relationships with GPs, the data suggests that few pharmacists had taken any measures to try and increase contact and communication with their local GPs.

Whilst it can be concluded that it was important that community pharmacists received support from the GPs to successfully undertake a MMS, the self-motivation of the individual pharmacist was also an essential factor. Despite pharmacists being positive regarding their involvement in the MMS and stating the main motivational factor to become involved with the project was the opportunity to extend and develop the community

pharmacist's role, only four pharmacists stated they had followed-up some of their patients with formal meetings during the twelve-month intervention period, with several pharmacists stating that they would not follow patients up due to inadequate remuneration.

All the interviewed pharmacists identified similar barriers to providing a MMS, but despite this some pharmacists still managed to undertake a full MMS service. This mirrors the history of service innovation in community pharmacy practice in the UK, whereby individual or small groups of community pharmacists have been responsible for developing innovative roles for their profession (Tan et al, 1996; Bell et al, 1998b; Rushton, 2001).

9. DISCUSSION

9.1 Introduction

This chapter is divided into three sections. The first section discusses the limitations of the project, which includes the methodological problems associated with being part of a large multi-centre study. I also discuss my reflections on the analysis and generalisability of the data, along with some considerations on my role as a clinical pharmacist conducting HSR.

In the second section of the chapter, I discuss the GPs' perceptions and attitudes towards the community pharmacist, along with some reflections on how community pharmacists believed GPs perceived them. The working relationships between the two professions (both pre and post MMS) will be discussed. I argue that having an established relationship between the community pharmacist and GP increased the success of a pharmacist lead MMS, due to the GP having a more positive attitude towards the community pharmacist and the community pharmacist being more confident to interact with the GP. I draw an analogy with how GPs are more accepting of practice pharmacists and the nursing profession extending their roles within the primary care setting, as generally they have closer working relationships.

In the final part of this section I look at the responses of the participating GPs to community pharmacists' attempts to extend their roles. I argue that some GPs in the project exhibited negative attitudes towards community pharmacists extending their role, particularly into areas such as prescribing and modifying patient's drug therapy regimens. I argue that the majority

of GPs saw the actions of the pharmacist as boundary encroachment and consequently were more supportive of the community pharmacist extending their role into areas which they exercised little autonomy. I discuss the arguments put forward by the GPs supporting this claim and look at the existing literature which has explored the responses of physicians to the expanding role of the pharmacist.

In turn, the third section of the discussion chapter focuses on community pharmacists' responses to having the opportunity to expand their role. The motivation and aspirations of the participating pharmacists will be discussed, along with the difficulties identified by the pharmacists to undertake and follow-up patients in a MMS. I argue that the participating pharmacists in this project had neither the organisational means, nor the motivation to encroach into the GP's territory. I end this section by looking at how community pharmacists viewed nurses within the primary care setting. Whilst I have argued pharmacists did not view their actions in this project as encroachment, pharmacists did view nurses within the primary care setting as potentially encroaching on roles they could undertake. Finally, a conclusion to this piece of research is provided.

9.2 SECTION ONE

9.2.1 Limitations of the study: methodological issues

The data collected for this thesis formed part of a larger body of data being collected by a collaborative research team (consisting of the Universities of Aberdeen, Keele and Nottingham and the College of Pharmacy Practice), who were responsible for independently evaluating the Department of Health funded Community Pharmacy Medicines Management Project. A concern I had throughout my thesis was I was collecting data from two varying perspectives. I was employed as a research fellow to collect qualitative data from community pharmacists, GPs and patients participating in this project (to determine their views about community pharmacists undertaking a MMS) and I was also using these subjects to obtain data to undertake a part-time PhD. My concerns centred around two areas; firstly, I had no involvement in the design of the protocol for the project, having been employed subsequent to this. Secondly, my PhD data collection would be secondary to much larger objectives set out in the project protocol that I had to achieve as a research fellow. I often found my data collection for the thesis had to follow the time and financial constraints imposed on the project. I do not know whether this impacted on the quality of the data I collected.

The project was conducted in nine pilot sites throughout England. Whilst these sites were chosen by purposive sampling to incorporate a range of demographic factors, it imposed restrictions on which qualitative methods I could use to collect my data. I also could not carry out any quantitative

work to triangulate with the qualitative work I was conducting, as another research fellow had been employed in the trial to undertake this research. I have therefore, in some instances referred to this quantitative work to consolidate my qualitative findings.

As discussed in the methodology chapter (refer to Chapter 5), focus groups were chosen in order to obtain data on the views and experiences of pharmacists participating in the project since they facilitated the collection of views from a large number of the participating pharmacists reasonably quickly, and without incurring repeated costs in having to travel to the pilot sites. On reflection, I found that focus groups were difficult to organise, particularly when I had no local knowledge about the pilot area and community pharmacists. LRCs were employed at each pilot site and they potentially could have helped in this process but in reality I found they offered little practical advice. Furthermore, it was difficult to build a rapport with the community pharmacists over the telephone and ensure that they attended an evening focus group. This was partly caused by practical issues such as being able to find a convenient time for all the pharmacists to attend. These problems were accentuated because pharmacists had been asked to attend a number of other meetings concerning the project, and were therefore often reluctant to attend. Other than providing food and refreshments for the pharmacists, financial restrictions and ethical approval ruled out offering cash as an incentive to persuade pharmacists to participate. This problem was further compounded because pharmacists had received payments to attend other meetings¹². All these factors seem likely to have influenced the attendance rate by the pharmacists at the focus groups (refer to Table 6.).

¹² Pharmacists received a payment for attending training events and feedback meetings organised by the PSNC.

Time restraints also meant that I had to conduct focus groups when some community pharmacists had yet to carry out medication reviews with patients, so they were unable to share their views and experiences. This was at times frustrating and probably an inefficient way of collecting data, and may have affected the quality of the data. However, there was often no way around the problem given that other objectives had been stipulated within the project, and time and financial constraints had to be met. Also, as a funded research project there was an explicit set of research questions that needed to be addressed. The facilitator often had to intervene in the focus group discussion to make sure that other research objectives were achieved, rather than focusing on the issues of relevance to this thesis. Again, I do not know whether this impacted on the quality of the data I collected.

A further problem, not unusual in focus groups, was that not all participants expressed views about the MMS, despite encouragement from the facilitators. This has made it difficult at times to report the overall views of the pharmacists because some pharmacists failed to express their views fully.

Due to the poor attendance rates I experienced in the initial focus groups, it was decided (in conjunction with the project team) to conduct telephone interviews for the follow-up work with pharmacists and GPs. I also had a mixed response to this method of data collection. The major limitation was the low response rate by GPs in nearly all of the pilot sites (refer to Table 8.). Despite repeated telephone calls (up to six times) to the practice manager it proved difficult to either identify a GP willing to take part in an interview, or there were difficulties contacting those GPs who agreed to be

interviewed. For example, two GPs agreed to be interviewed, an interview was arranged with them personally, but on the day of the interview one GP was on annual leave and another was not in the GP practice. To circumvent these difficulties two members of the Steering Group (both academic GPs) contacted lead GPs personally and by fax to try to arrange interview times. In some instances this proved successful.

On the other hand, using telephone interviews to gain subsequent data from pharmacists proved more successful and a high response rate was achieved. Pharmacists may have been more willing to be interviewed given that I had already met many of them at focus groups and they may also have wanted to discuss their experiences of the project, given its impact on their day-to-day roles.

I think it is also important to acknowledge that I had no active involvement in the recruitment of GPs and community pharmacists on to the project. Participation in this project was voluntary, with community pharmacists and GP practices in each pilot site being invited to participate. Both parties received a payment for attending the launch meeting set up by the PSNC and then subsequent payments for taking part (GPs received a payment for recruiting patients on to the project and community pharmacists received a payment for undertaking the consultations with patients). Although pharmacists and GPs received a payment for participating in this project, they were under no obligation to attend focus groups or be interviewed. Any participant that agreed to provide feedback (either at a focus group or by telephone interview) did so on a voluntary basis and if they refused to do so there was little I could do about it. It was particularly difficult to recruit GPs for interview. As such, this was an opportunistic sample (because I could only interview participants willing to be interviewed rather

than selecting participants to be interviewed) and thus this work did not adhere to the broad principles of theoretical sampling. The views obtained may not represent those of all pharmacists and GPs in the project and it was not possible to keep interviewing until saturation occurred. It is impossible to know if those who did not agree to be interviewed would have held different views. However, the GPs and pharmacists whom I interviewed provided a wide range of responses and there is nothing to suggest that these views obtained from these GPs and pharmacists would be different from GPs and pharmacists not interviewed.

9.2.2 Reflections on the analysis of data

There are various techniques and programmes which can be used to assist with the analysis of qualitative data in order to help make it more rigorous. For example, reporting deviant cases, using computer programs such as NVivo to help with coding and analysis, and using additional qualitative researchers to assess transcripts (Mays and Pope, 1995; Seale, 1999; Silverman, 2000). However, as with all qualitative (and quantitative) research, the themes that I have produced and reported are dependent on my judgment and skill as a qualitative researcher. I therefore wish to reflect on the analysis of the data that has been produced in this thesis.

As indicated in the methodology chapter, I used the Grounded Theory (Glaser and Strauss, 1967) approach in its broad outline to guide my research and analysis of data. By this I mean that I generated themes from an initial overview of the data, and then used the technique of constant comparison when re-analysing the data to and examining each case in relation to the theme. Part of this process involved repeatedly reading the transcripts and considering the interpretations that I was beginning to

bring to bear in relation to my data. To improve the consistency and reliability of the data, the transcripts were read separately by my two supervisors and myself and to some extent represent a collaborative set of analytical decisions.

Due to time constraints, it was often difficult to begin analysis of the data whilst also collecting data, as data often had to be collected very quickly. However, the constant comparison technique was helpful in terms of identifying key themes, for example, around established relationships and willingness of the GPs to accept community pharmacists undertaking a MMS. There were also clear instances of deviant cases. For example, despite one GP having an established relationship with their local pharmacist they expressed negative views regarding pharmacists undertaking a MMS. By examining the interview data in greater depth, it became apparent that this GP held different beliefs about which roles were appropriate for community pharmacists to undertake to other GPs that had good relationships with their local community pharmacists. This particular GP's view was independent of their relationship with the community pharmacist. Whilst I am unable to account for this GP's view it is interesting to look at and acknowledge deviant cases.

I used the computer program NVivo to assist in the analysis of the pharmacist focus group data, due to the large quantity of data that was generated. Although it took some time to use this computer package, I believe it enabled me to look at this data much more quickly and efficiently than if I had done it manually. I decided not to use the programme when analysing the telephone interview transcripts, as there was considerably less data to analyse.

Seale (1999) and Silverman (2000) both advocate that qualitative researchers should support generalisations by the simple counting of categories ('quasi-statistics'). They argue that quantification may be useful as it allows the reader a chance to gain a sense of a perspective regarding the data as a whole. I decided to use this technique when reporting my key themes, because I had a large corpus of data to report and therefore believed this technique would help the reader gain some perspective of the data. However, I acknowledge that there is a danger when quoting 'numbers' in qualitative research, in that the range and strengths of views expressed may be overlooked as a consequence of using a numerical approach to data analysis.

9.2.3 Reflections on my role as a pharmacist undertaking Pharmacy Practice/Health Services Research

It has been suggested that all researchers need to reflect on the effects of their personal characteristics such as age, gender, social class and professional status, as well as the interview setting or the context in which the research was conducted. All these characteristics have the potential to influence each other reciprocally (Britten, 1995; Mays and Pope, 2000). With regard to my own research, the above were necessary considerations, because at the time of data collection I was also occasionally practicing as a clinical, hospital pharmacist. On reflection, I believe that my professional background had the greatest potential to impact on my data collection. This was due to my personal preconceptions and assumptions (prior to and during the project) towards the pharmacist and physician relationship and attitudes towards each other, based both on the literature and my experiences as a hospital pharmacist. I acknowledge that there are both

advantages and disadvantages to having a similar professional identity to the group being researched. It is possible to understand a groups experiences, given a shared sense of professional identity, thus enabling the interviewer to have a degree of empathy regarding the difficulties or pressures that the interviewee may face. However, this closeness to the subject may also stop the researcher from identifying issues which seem unusual about the research, because they may share similar experiences to that of the interviewee. It may also be that when a researcher shares the professional background of the group being studied, certain issues of findings may be 'taken for granted' and not viewed in the same light if a researcher with a different professional background.

There is little published literature that has considered the effect or impact on the quality of data obtained by interviewers with clinical backgrounds, when their professional background is disclosed to the interviewee. This topic is rarely discussed in the medical and health services literature, usually due to the word restrictions placed by medical journals on the length of articles (Hoddinott and Pill, 1997b). The literature that is available has mainly focused on the impact of the professional identity (usually a GP) on patients (Hoddinott and Pill, 1997b; Hamberg and Johansson, 1999; Richards and Emslie, 2000; Conneeley, 2002). Occasionally it has focused on the impact on fellow health professionals (Chew-Graham et al, 2002; Conneeley, 2002). These studies suggested that the professional identity of the interviewer did produce notable differences in the interviewees' responses. For example, Hoddinott (1997b) a GP, found she obtained richer data from patients when her GP background was disclosed. They concluded that they would make their professional background clear when they conducted their qualitative research. Conneeley's (2002) professional background was also disclosed

to both patients and fellow practitioners. She concluded that whilst patients were not inhibited by her professional status, fellow professional staff appeared anxious and gave information in a descriptive way. This may have been due to the fact they felt the interviewer (Conneeley) was being critical of their work.

Chew-Graham et al (2002) reported similar findings and concluded when the GP's status was not known to GP interviewees, the interview was narrower in focus, with less discussion and diversion, and much less emotionally charged. Responses tended to be more explanatory and respondents could sometimes be resistant to questions about their attitudes towards clinical practice. Where respondents recognised the researcher as a clinician, access to the GP was easier; interviews were broader in scope and provided more personal accounts of their attitudes and behaviour in clinical practice. The authors also concluded that at times the GP interviewer was identified as an expert and/or judge in clinical decision-making issues. Occasionally, interviewees believed the GP interviewer was making moral judgments over how they had acted in their patient consultations. If this occurred then respondents were likely to be cautious in their conversation. Richards and Emslie (2000) concluded that if a researcher decided to declare their professional background and states that they are medically qualified, they should be aware of the interviewee's possible preconceptions and should take the time to explain their role as a researcher.

Whilst the literature suggested that it may be possible to obtain richer qualitative data by disclosing ones professional background, I had concerns about doing so. I feared that this could have a detrimental effect on my interviews because my clinical background was not exactly the same as

that of the respondents (the literature had only looked at interviewing fellow peers). I therefore decided that in this project, I would not disclose my professional background unless asked by the interviewee. I had concerns when I interviewed GPs that they may not have been so candid about their attitudes towards community pharmacists extending their role, if they knew I was also a pharmacist. Like Chew-Graham et al (2002), I found because GPs assumed that I had a non-clinical background, there were times when the GPs were reluctant to discuss their attitudes about community pharmacists. Instead they would often talk about attitudes held by the GP population, rather than their own personal attitudes. Their reluctance to discuss their personal views might also be attributed to the short time I had available to interview the GPs and the fact that a telephone interview creates a 'distance' between the interviewer and interviewee. On reflection, I still would not disclose my professional background but I believe this research has demonstrated that the interviewer's professional background potentially can play a major part in how respondents interact. Although outside the scope of this thesis, it would have been interesting to have had an academic GP conduct some of the GP interviews. This would have allowed some comparison to be made as to whether GPs would have been more willing to disclose their attitudes if they had known a fellow peer was interviewing them as opposed to a 'researcher', and in turn how this would have impacted on the data obtained.

I also decided not to disclose my professional background to the community pharmacists, again because my professional background was not equivalent. I am a hospital pharmacist and have very little experience of working as a pharmacist in the community setting. I also believe there is a tendency for hospital pharmacists to consider themselves as possessing

'superior' clinical knowledge to community pharmacists, and that this can create a divide amongst hospital and community pharmacists. On reflection, I believe that not disclosing my professional background was the right decision, as the community pharmacists sometimes referred to hospital pharmacists being more experienced in undertaking medication reviews and liaising with doctors. I believe if I had disclosed my professional background, pharmacists might have felt that I was judging them, particularly when I asked them to talk about clinical interventions that they made and how they had followed these up with the GP. I found the pharmacists very forthcoming in discussing their views and experiences about their relationships with their local GPs. This may have been due to the fact that the initial data collection was achieved by holding a focus group, so this data collection method may have been less intimidating for pharmacists than a one-to-one interview. When I came to undertake the telephone interviews, having previously met the majority of the interviewees at the focus groups, this allowed some level of rapport between the pharmacist and myself to be established.

I also believe it is important to acknowledge the background of my supervisors and fellow members of the research team who were also involved in my data collection. Barry et al (1999) argued whilst reflexivity was often described as an individual activity, using reflexivity as a team activity, through activities such as group discussions could improve the rigor and quality of research. Pope et al (2000) also stated that there may be merit in using more than one analyst in situations where researcher bias could be a problem. When designing the semi-structure interview schedule and when analysing the data my supervisors (a medical sociologist and an academic pharmacist) and a member of the Steering Group (an academic GP) also reflected on the data. I believe their involvement in this process

enabled me to question my own preconceptions and reduced interviewer bias. Likewise, having two facilitators (one facilitator did not have a clinical background) conducting the pharmacist focus groups, may have helped reduce the influence of my professional background on the interview process and preconceptions about community pharmacists.

9.2.4 Generalisability of the data and implications for further research

Qualitative research has been criticised for 'lacking generalisability', in the sense that some quantitative data sets can be generalized to a population. It has often been reported that an indicator of the quality of qualitative research, concerns the extent to which findings can be generalised beyond the setting in which they are generated (Mays & Pope, 1995). I believe that many of the themes identified in this project are likely to be reproduced in research exploring interprofessional collaboration in other settings, on the grounds that the themes I have identified have been acknowledged in other research studies. Likewise, the respondents interviewed were recruited from a range of pilot sites and the themes identified were replicated in all these sites. It is unlikely that the identified themes would be 'unique' to these pilot sites, since the sites were chosen to incorporate a range of different demographic factors.

As I stated before, the themes identified in this project have also been identified in a number of other studies which have explored interprofessional barriers between GPs and community pharmacists (Adamcik, 1986; Hughes and McCann, 2003) or physicians' responses to the extension of the community pharmacist's role (Spencer and Edwards, 1992; Ellis et al, 1992; Bleiker and Lewis, 1998; Ewen and Triska, 2001;

Howard et al, 2003). The majority of these studies studied GPs' and pharmacists' views about role extension for community pharmacists from a hypothetical perspective, and they were currently not undertaking collaborative work with each other. This project has demonstrated that similar concerns and perceived barriers have been identified even when the community pharmacists and GPs were working together. Sadly, this project had a limited impact on altering views held by the two professions.

Prior to, and during the project I believe insufficient emphasis was placed on encouraging the participating GPs and community pharmacists to regularly meet up and to address any attitudinal barriers to effective collaboration. I was disappointed that greater emphasis was not given to this issue and incorporated into the CPMMP protocol, particularly as this was an issue that should have been identified, and subsequently addressed by a review of the literature. As I stated before, I had no involvement in the trial protocol due to being employed subsequent to this, therefore it was simply an issue that I could not address. However, it became apparent quite early on in the data collection that it should have been an integral part of the protocol.

Overall, I believe this project has highlighted that there are both attitudinal and organisational barriers that need to be addressed in order for collaborative work between the two professions to flourish. Furthermore, I believe this project has demonstrated the importance of developing better relationships between GPs and community pharmacists before undertaking collaborative work, and the consequences on a collaborative project if they are not addressed. An overview on the literature that has looked at the processes and strategies towards building collaborative relationships will be given in chapter 10.

9.3 SECTION TWO

9.3.1 Introduction

In this section of the chapter, I discuss the GPs' perceptions of and attitudes towards community pharmacists, alongside some reflections on how community pharmacists believed GPs perceived them. Aspects of the working relationships between the two professionals (both pre and post MMS) will then be explored. From the data collected I discuss the factors that may have contributed to relationships not improving during the project, and argue that having an established relationship between the community pharmacist and GP increased the success of a pharmacist lead MMS. This was due to the GP having a more positive attitude towards the community pharmacist and the community pharmacist finding it easier to interact with the GP. I draw an analogy with how GPs are more accepting of practice pharmacists and the nursing profession extending their roles within the primary care setting, as generally they have closer working relationships.

Finally, GPs' views and attitudes towards community pharmacists attempting to extend their traditional roles will be explored and discussed. I aim to focus on the extent to which GPs in this project saw role extension by community pharmacists as boundary encroachment, and by illustrating this argument through a discussion of some of the existing literature on the sociology of the professions.

9.3.2 Perceived attitudinal barriers between community pharmacists and GPs

A number of attitudinal barriers were identified from the qualitative data. Whilst some pharmacists thought GPs viewed them as fellow clinical professionals, it was apparent that some community pharmacists believed GPs perceived them to be 'shopkeepers' rather than health professionals. Likewise, some GPs expressed a concern that commercial interests could affect a community pharmacist's clinical advice. The perception of pharmacists as a 'shopkeeper' is supported by a number of other studies looking at physicians' responses to role extension by pharmacists (Adamcik et al, 1986; Spencer and Edwards, 1992; Ellis et al, 1992; Hughes and McGann, 2003). In several of these studies, up to a third of GPs interviewed believed that the pharmacist's advice could be biased by commercial pressures and their primary motive when giving clinical advice was to make a profit. Hughes and McGann (2003) argued that if a GP perceived a community pharmacist as a business person or shopkeeper, then it created a conflict of interest in health care, and this might have accounted for GPs' concerns over pharmacists prescribing and extending their clinical role. Although not specifically questioned, no GPs interviewed in this project volunteered any reference to the commercial element associated with general practice. In the study conducted by Hughes and McGann (2003), several GPs stated that there was a commercial element to general practice but believed it was not as blatant as community pharmacy.

As a consequence, some pharmacists believed that some GPs did not view them as not having an equivalent or similar professional status to them. The GPs interviewed in this project openly admitted that some of the GP

population did believe they were professionally superior to a community pharmacist. However, it is more difficult to determine whether they themselves also held this attitude. Some GPs in this project were positive about community pharmacists' professional standing, stating they were the 'experts' in medication and pharmacological issues, and clearly welcomed a greater degree of collaborative working. Hughes and McGann (2003) state that professional hierarchy represents a boundary to the role extension of community pharmacists, with community pharmacists commenting that GPs considered them subordinate in professional terms and on the periphery of the primary healthcare team.

Similar to Hughes and McGann (2003), the pharmacist qualitative data suggests that some community pharmacists believed that GPs did not view them as a member of the primary care team. This perception is supported to some degree by the qualitative GP data. A small number of GPs reported that community pharmacists were not members of the primary health care team, and held concerns about them having a greater clinical involvement in patient care as it was considered outside their remit. The GP qualitative data also suggested that some GPs interviewed had a strong opposition to community pharmacists having a role in prescribing. Hughes and McGann (2003) also found GPs expressed concerns about pharmacists assuming roles they considered to be general practice activities and were unenthusiastic about them having a role in prescribing.

Community pharmacists in this project also believed (and were frustrated about the fact) that GPs did not have a clear understanding of their current role, particularly with regard to patient confidentiality. Whilst several GPs stated that they had a good awareness of a community pharmacists training and day-to-day role (this was usually due to them having relatives

or friends that were pharmacists), the majority of GPs interviewed openly admitted they had a poor knowledge about the training a pharmacist received and their current role. This lack of awareness was highlighted by the concern held by over a third of GPs, about community pharmacists having access to patients' medical records. GPs feared that patient confidentiality might not be upheld if community pharmacists had access to these records. Only two GPs made reference to the fact that a community pharmacist was bound by a code of confidentiality.

Several other studies have highlighted the physician's lack of awareness over a pharmacist's training and role in health care (Smith et al, 2002; Hughes and McGann, 2003). For example, Smith et al (2002) argued that as few physicians had an understanding of the training a person undergoes to become a pharmacist, then this could mean they had 'no expectations' of the clinical work a pharmacist could undertake. This situation has also been discussed within an article (Anon., 2004). Anon. (2004) looked at how newly qualified hospital pharmacists integrated into the healthcare team. They argued other health care professions' perceptions and poor understanding of what a pharmacist's job entailed caused problems for the junior pharmacists, as other health care professionals did not know what to expect from them. This problem was further exacerbated as pharmacists usually worked alone, rather in hierarchical teams like physicians and nurses. The absence of a hierarchical title¹³ to indicate the pharmacist's level of experience may also have led to other health care professionals having unrealistically high expectations of junior pharmacists. This was a factor that caused junior pharmacists not to participate fully in the care of the patients for whom they had responsibility. These studies conclude that

¹³ For example, hospital physicians have the titles, Junior House Officer, Senior House Officer, Registrar and Consultant to indicate their level of expertise.

physicians lack of awareness ultimately leads pharmacists to have a sense of frustration and feel undervalued in their work (Hughes and McGann, 2003), and physicians to have no, or inappropriate expectations of pharmacists (Smith et al, 2002; Anon, 2004).

A further interpretation from these data is the suggestion that some GPs viewed practice pharmacists differently to community pharmacists. When GPs were questioned about how they believed a community and practice pharmacist differed, many GPs stated that the practice pharmacist knew how their practice ran, had access to patients' medical records (which GPs did not object to) and were able to undertake more clinical activities, such as checking patients were on appropriate medication and monitoring clinical parameters such as blood sugars. These data suggest that GPs believed practice pharmacists' clinical abilities were greater than that of their community colleagues. From their study conducted in the USA, Adamcik et al (1986) noted that physicians who had contact with clinical pharmacists may have attributed those pharmacists' skills and expertise as something unique to them, and by acknowledging the excellence of these so-called 'deviant clinical pharmacists' they confirmed the stereotype of the community pharmacist. Hughes and McGann (2003) argued that many GPs saw a practice pharmacist as the preferred model in terms of interprofessional working and prescribing support, as they were located within the practice and worked directly with GPs. This helped erase the shopkeeper image which they typically associated with community pharmacists and brought them into the primary care team.

9.3.3 Working relationships between community pharmacists and GPs

Despite a number of attitudinal barriers identified in this project between the pharmacists and GPs, almost all the participating pharmacists and GPs stated they had a good working relationship with each other prior to the MMS commencing. GPs reported that they found the community pharmacists helpful and obliging, and reported that they often phoned them for advice and information concerning pharmaceutical issues. Approximately a quarter of the GPs interviewed also stated they trusted and valued the community pharmacist's advice. The majority of pharmacists however, hoped the MMS would enhance relationships between themselves and the GPs.

The community pharmacist relationship with the GPs was often more reactive in nature, with them generally only contacting GPs if they had identified mistakes with their prescribing. This may provide an explanation why community pharmacists hoped that participating in the MMS would further improve relationships with GPs, as the service gave them the opportunity to have a more proactive relationship with their local GPs. For example, they could suggest modifications in drug management rather than just highlight medication errors to the GPs.

However, both professions stated their communication pre-MMS was generally restricted to telephone conversations and there was often little face-to-face contact. From their study conducted in Australia, Chen et al (2001b) concluded that this was not an unusual finding and the most common medium for communication between GPs and community pharmacists was via the telephone. This was due to most GP practices and

community pharmacies being geographically isolated from each other, precluding regular face-to-face contact during business hours. They concluded when telephone communication occurred, calls were generally short in duration, usually concerned one 'simple' issue to discuss and were initiated more often by pharmacists than GPs.

At the end of this project, both pharmacists and GPs reported that the MMS had a limited impact on improving their existing working relationship. In one instance, a GP reported that it had a detrimental effect on their working relationship as a result of the correspondence they had received from the community pharmacist. Likewise, several pharmacists stated they believed the project had had an adverse effect on relationships between GPs and themselves. Pharmacists more commonly reported the MMS had impacted (to some extent) on their existing working relationships with GPs, as it had encouraged communication between the two professions. Seven pharmacists also believed their professional profile had been enhanced with the GPs as a result of taking part in the MMS. This was due to them having the opportunity to demonstrate to the GPs their potential clinical input into a patient's care.

McDonough and Doucette (2001) argued it was paramount to understand how a collaborative relationship between a physician and pharmacist developed, as pharmacists could often impact patient outcomes through a cooperative relationship with physicians. They stated few studies had examined which types of characteristics were most important for fostering the growth and development of a collaborative relationship. As a result, they developed a theoretical framework for the physician/pharmacist collaborative working relationship (CWR), which was based on models of business relationships and physician-nurse relationships.

The CWR model postulated pharmacists and physicians progressed through five stages¹⁴ of increased collaboration, characterised by greater trust, shared decision making and interdependence. Relationships were developed and driven by three groups of characteristics termed participant, context and exchange. Participant characteristics reflected personal characteristics, such as level of education, training experience and age. Context characteristics were features related to the participants' practice environment for patient care activities, such as personnel, facilities, or organisational structures, and exchange characteristics, encompassed the nature of social exchanges between both parties. Each of the characteristics had the potential to play a role in the development of a collaborative relationship by positively or negatively influencing the stage of development.

Brock and Doucette (2004) aimed to evaluate the CWR model by determining the degree of collaboration present in a small number of pharmacist-physician professional relationships. They also aimed to identify the variable factors that were important in establishing collaboration between the two professions. Likewise, Zillich et al (2004 & 2005) aimed to

¹⁴ **Stage 0:** Professional Awareness (exchange is minimal and interactions are discrete between pharmacists and physicians).

Stage 1: Professional Recognition (Pharmacists begin to proactively promote exchanges with a physician).

Stage 2: Exploration and Trial (Practitioners can gauge and test their goal compatibility, expectations, trustworthiness, and commitment to the relationship).

Stage 3: Professional Relationship Expansion (Communication becomes more bilateral and interdependence increases).

Stage 4: Commitment to Collaborative Working Relationship (Collaboration occurs when physicians believe that the amount of risk to their practice generated through increased exchanges with a pharmacist is less than the value added to their practice).

test the CWR model and determine which relationship characteristics drove physician/pharmacist collaboration from a physician's perspective.

Both studies found that although participant and context factors influenced physician/pharmacist collaborative relationships, exchange characteristics were the most influential relationship drivers. Role specification, trustworthiness, and relationship initiation were positively associated with increased physician/pharmacist collaborative practice. The CWR model demonstrated that pharmacists were often responsible for initiating communication with physicians. The authors recommended that in the early stages of the CWR, pharmacists should strive to learn more about the physician's practice and how they could positively affect patient care. Pharmacists who showed interest in the physician's practice and developed services that improved the physician's care of patients were more likely to have better success in developing a CWR.

Trustworthiness was another critical factor in collaborative relationships, as pharmacists who had worked with physicians over a period of time had more opportunities to demonstrate their knowledge and clinical expertise. As physicians became more familiar with pharmacists they gained confidence in their abilities, and trust and commitment to the relationship began to develop. In some instances, physicians were more willing to initiate the interaction by seeking the pharmacist's advice regarding clinical considerations once trust has developed. The authors concluded that as the practitioners interacted, more role specification took place, and roles and responsibilities evolved to define the CWR. This was also demonstrated by Naccarell and Sims (2003) who concluded that GPs would often interact with other health care professionals whom they already trusted.

This was reflected in this project, by GPs stating that if they did not trust a community pharmacist then it was difficult for them to have faith in the pharmaceutical advice given to them. Similarly, pharmacists stated that if GPs trusted them then it was much easier to convey information to them and GPs were more likely to listen to their advice.

Ambler (2003) stated that often community pharmacists and GPs had not developed a trustful and respectful relationship with each other, because geographical distance precluded them knowing each other well. Whilst I believe this is a valid argument, I do not believe that was the reason for pharmacists and GPs not developing (or further developing) their working relationship in this project. I believe that there were other factors which may have contributed to the community pharmacists and GPs working relationship not improving in the MMS, and the 'shopkeeper' image remaining significant. These will be discussed in turn.

9.3.4 GPs' involvement in the MMS

The first factor which I believe had an impact on the relationships remaining the same between community pharmacists and GPs, centred on the level of GP involvement in the project. Many community pharmacists reported that the participating GPs in their pilot site did not respond to their clinical suggestions and there was a strong sense they were not committed to undertaking a MMS. These reports were validated in some instances by the GP qualitative data, whereby GPs admitted that their practice pharmacist had dealt with any clinical recommendations made by the community pharmacist, so their involvement had been minimal. GPs also admitted that they had little input in to the project and had only ever attended the launch meeting, with some GPs stating they had not attended

any meetings. In these circumstances it was unlikely that GPs' perceptions of the community pharmacist would alter, or their working relationships develop, if they had minimal involvement with the community pharmacists in the MMS.

9.3.5 Clinical interventions identified by community pharmacists

The second factor which I believe also had an impact on attitudes and relationships not altering, centred on the nature of the clinical recommendations made by the community pharmacists. Pharmacists reported they had often only recommended minor, clinical interventions to patient's CHD medication. This was supported by the GP qualitative data, whereby GPs stated they believed that the majority of their CHD patients were already on the correct regimen of medication. In a few instances, GPs reported that some clinical recommendations were inappropriate for particular patients. Other studies have shown that physicians often had no clear expectations of how pharmacists applied their clinical knowledge in practice so they had no strong (or negative) expectations that pharmacists could provide any clinical services (Smith et al, 2002). These authors also concluded that a physician's experience indicated that pharmacists were better at providing non-patient-specific drug information than providing information tailored to an individual patient's clinical situation. As community pharmacists in this project only made minor clinical interventions, they had no opportunity to show GPs their potential role in reviewing medication, thus not changing GPs expectations or experiences of the community pharmacist's role.

9.3.6 Communication of interventions

The third factor which I wish to discuss centred on how the community pharmacists communicated their interventions to the GP. This factor I believe had a major impact on the relationships not improving between the community pharmacists and GPs. As discussed in the methodology chapter (refer to Chapter 5), the method of communicating clinical interventions to the GP was left to the discretion of the pharmacist. Both pharmacists and GPs confirmed that the majority of interventions were communicated via post, with some GPs reporting they had no face-to-face contact with the pharmacist. Although the majority of the GPs claimed they were happy to receive recommendations via post, some GPs indicated that having verbal contact or meeting face-to-face gave the opportunity to discuss patients in more detail. They also stated it would have given them the opportunity to explain in more detail why certain clinical recommendations were not followed.

The lack of verbal or face-to-face contact initiated by the community pharmacist may be explained by a number of factors. These included; lack of urgency surrounding the clinical recommendations, time pressures on both community pharmacists and GPs, and a lack of confidence by the community pharmacist to speak with the GP. A small number of pharmacists stated they were often reluctant to speak with the GP as they lacked the confidence to challenge their prescribing decisions and feared that the GP would retaliate if they did speak with them.

Lambert (1996) argued that communication between pharmacists and physicians could be problematic because each party's professional identity was at stake when the two professions interacted. He argued even if a

physician did not feel their 'turf' was being threatened by a pharmacist, pharmacists' reports of problems and recommendations for alternative drugs could be interpreted as criticism, and this in turn could be intrinsically threatening to a physician's professional identity.

Several studies have alluded to personality traits or factors that may predict whether pharmacists will interact with physicians (Lambert, 1996; Nimmo and Holland, 1999b). For example, Lambert (1996) investigated the effect of demographic factors, relative power, social distance and types of verbal politeness strategies used by pharmacists when reporting allergies and making recommendations to physicians. His findings included older pharmacists were more likely to make recommendations than younger pharmacists, perhaps because they had more experience and were more confident. Community pharmacists were more polite and therefore less likely to make recommendations than hospital pharmacists, and some pharmacists managed the threat of the physician by abstaining from the recommendation entirely.

Nimmo and Holland (1999b) concluded from their work that the personal and social characteristics of pharmacists were two major factors that predisposed pharmacists to reacting in a certain way to changes in practice. Their review of published studies exploring the personality traits of pharmacists suggested that about one practitioner in five had a fear of interpersonal communication.

Whilst this thesis did not set out to specifically look at personality traits, I would argue in this project that some pharmacists choose to communicate their recommendations by post as this was a less threatening act than having verbal contact with the GP, where the GP could potentially challenge

their recommendations. Some pharmacists also admitted that to avoid speaking with the GP they had sometimes asked the practice pharmacist to liaise with the GP on their behalf.

Using McDonough and Doucette's CWR model (2001), the majority of the pharmacists and GPs relationship within this project were at Stage 0, where exchange was minimal and interactions were discrete between each other. However, what was evident was that by not having much verbal or face-to-face contact, this allowed little opportunity for new or existing relationships to be strengthened between the pharmacist and GP, and relationships did not have the opportunity to move onto higher stages of the CWR model.

Bradshaw and Doucette (1998) stated that the lack of face-to-face contact with the rest of the primary healthcare team was a considerable barrier to pharmacists taking on new roles. A number of other studies have shown that communication can be problematic between pharmacists and physicians (Chen et al, 2001b; Wilson et al, 2002; Cheung et al, 2003; MacRae et al, 2003). For example, Chen et al (2001b) found that in Australia, pharmacists and GPs communicated via the telephone to discuss clinical issues, but a collaborative scheme had little impact on the frequency and rate of communication between GPs and community pharmacists. They suggested that in order for community pharmacists to adopt a more professional role, alternative communication arrangements needed to be identified to allow discussions about clinical issues to occur. They suggested face-to-face case conference meetings as one such alternative.

This is not just an issue that occurs in primary care. Cheung et al (2003) assessed the attitudes of junior doctors towards pharmacists and how the interaction between them could be improved. All the doctors appreciated the presence of a pharmacist on their ward, and the majority of doctors stated they would have liked more personnel contact rather than just reading a note attached to the drug chart. Doctors found it difficult to have regular contact with pharmacists and found it annoying when they were bleeped by pharmacists. They stated more personnel contact with pharmacists would have allowed them to discuss medication changes more openly.

Likewise, role specification, trustworthiness, and relationship initiation were also positively associated with increased physician/pharmacist collaborative practice (Brook and Doucette, 2004; Zillich, 2004, 2005). However, once again without regular communication, particularly in the initial stages of the project, then these issues were also not addressed. If pharmacists had been required to collect patient data from the practice then this may have provided an opportunity for the pharmacist to initiate a relationship with the GP. In these instances, pharmacists would have needed to discuss with the GPs what information they required from the patients' medical records. This would have potentially allowed the GP to understand the role of the community pharmacist in the MMS, and the opportunity to inform the pharmacist what the practice needs was. Likewise, it would have started to allow the community pharmacist and GP to start trying to build a trustful relationship. These data also suggested that each GP interviewed had a preferred method of communication with the community pharmacist. This suggests that community pharmacists and GPs should discuss and decide at an individual level the method of communicating clinical recommendations.

9.3.7 Established relationships between participating pharmacists and GPs

These data suggest however, that where there was an established relationship between the community pharmacist and the GP, the GP was more supportive of community pharmacists extending their role. The importance of having a good relationship with the GP was also reflected by almost all pharmacists stating that having an established relationship with the GP impacted on the success of a MMS. There were examples given by pharmacists that by having an established relationship (or when the relationship improved) with the GP, this had a positive effect on the GP regarding the community pharmacist's clinical capability. Likewise, pharmacists acknowledged that when they did have the opportunity to meet with their local GPs, this allowed them to build relationships with them and made contacting and conveying information to the GPs much easier.

There are conflicting findings concerning how improving the relationship between GPs and pharmacists can affect the attitude of GPs towards pharmacists' clinical role (Adamcik et al, 1986; Bogden et al, 1998; Chen, 2001a; Muijrers et al, 2003). Muijrers et al (2003) concluded that improving the relationship between GPs and pharmacists would have a positive, significant affect on the attitude of GPs towards the pharmacist's care-providing function. Likewise, Bogden et al (1998) stated that improving the relationship between the pharmacist and physician played an important factor in their intervention of managing patients with hypertension. This was demonstrated in this project by several GPs stating that if they did not have an established relationship with their community

pharmacist then it was hard to have trust and confidence in them. This was particular evident when GPs reported their local pharmacy had a succession of locums so their level of trust and confidence in the community pharmacist in that instance had not been that good. It was also concluded that it was difficult to follow advice unless the GP believed it to be good advice.

Ambler (2003) acknowledged that without trust and respect, the professional relationships between community pharmacists and GPs may not be strong enough to sustain joint working relationships in two geographically distant locations. She concluded that if this was the case then getting to know one another was the key, but could be made more difficult by the increased trend for both professions (but particularly in community pharmacy) towards an increasingly mobile workforce, more locums and part-time working.

This analogy can also be demonstrated by looking at the relationship between GPs and practice pharmacists. All the GPs interviewed, who had practice pharmacists working in their practices, were generally supportive of them undertaking clinical activities and accessing patients' medical records. All these GPs reported they had a good or excellent working relationship with their practice pharmacist and held them in high esteem.

9.3.8 Community pharmacist and GP collaboration

Despite the GPs being more supportive towards community pharmacists extending their role where there was an established relationship between them, these data indicated that GPs expressed contrasting views about community pharmacists undertaking a MMS. Six GPs interviewed were

generally positive and supportive of community pharmacists undertaking the service, however, eight GPs expressed more ambivalent views, whilst the remaining seven expressed predominately negative views. These mixed views were supported by the pharmacist and GP qualitative data, and the GP quantitative data undertaken for the MMS. For example, the qualitative pharmacist data indicated that some GPs did not respond to their clinical suggestions, whilst the qualitative GP data stated some GPs found the MMS both time consuming and laborious, with the pharmacist simply duplicating work already carried out within their practice. The quantitative GP data undertaken revealed as the study commenced, nine per cent of GPs participating did not believe that community pharmacists should extend their role, but this had increased to 17% by the end of the intervention period (The Community Pharmacy Medicines Management Evaluation Team, 2004).

Similarly, participating GPs argued there would be a mixed reaction from most GPs concerning closer working relationships with community pharmacists. When asked about this, five GPs believed that the GP population would welcome more collaboration. This group argued that this was mainly because such services had the potential to reduce the GPs current workload, and they acknowledged that GPs currently did not have the time to undertake regular reviews of medication. The remainder of the GPs believed their peers would either be suspicious of having closer collaboration, or view collaboration as potential 'interference' creating more work for them. The interviewed GPs were very candid in their responses to why they believed fellow GPs would be against greater collaboration with community pharmacists. The reasons cited included; concerns about maintaining a hierarchy within the current division of labour, feeling threatened by community pharmacists questioning their clinical decisions,

losing control over their patients, whilst others referred to the personality of some GPs, where some GPs believed that they had greater knowledge than a community pharmacist. It was acknowledged that if this were the case, then it would be unlikely that GPs would undertake collaborative projects with community pharmacists as they would not be willing to accept pharmacists' advice.

Whilst participating GPs openly acknowledged how the GP population would react to collaborative work with community pharmacists, it is more difficult to determine whether they also shared these views. It is less clear from the data whether they felt threatened by community pharmacists questioning their clinical decisions, or whether they viewed community pharmacists as professional equals. What can be concluded is that several of the GPs interviewed indicated that they saw a MMS outside the scope of a community pharmacist's expertise. These GPs acknowledged that whilst community pharmacists could provide beneficial advice regarding drug interactions, they were not the most appropriate person within the primary health care team to be making clinical recommendations. These GPs believed it was outside a community pharmacist's remit and could potentially lead to conflict between the two professions.

Furthermore, some of the participating GPs went on to specify roles that they believed community pharmacists could undertake, if they wanted to extend their role. Tasks identified included; managing patients' repeat prescribing, managing patients' medication post hospital discharge and participating in a referral system, whereby GPs referred patients (particularly the older population) to the community pharmacist for their input. It should be noted that the roles identified by the GPs in this project usually had little self-autonomy and were seen to benefit the GP by

reducing their workload. Several GPs also referred to community pharmacists prescribing, arguing they believed it would be difficult to manage their patients if more than one person was prescribing for them because it could lead to patient confusion, and raised an issue over who would ultimately have responsibility over the patient.

This finding is supported by the literature which has investigated GPs' views on the extension of the community pharmacist's role (Ritchey and Raney, 1981; Spencer and Edwards, 1992; Ellis et al, 1992; Bleiker and Lewis, 1998; Ewen and Triska, 2001; Hughes and McCann, 2003; Howard et al, 2003). As reported in Chapter 2, these studies demonstrated that although GPs generally favoured community pharmacists extending their roles, and often welcomed a greater degree of collaboration with them, they all identified roles which they believed were appropriate for community pharmacists to become more involved with. For example, GPs were generally supportive for community pharmacists to carry out an additional role in areas such as reporting adverse drug reactions, maintaining patient drug profiles, counselling on OTC or prescribed medication and supervising repeat prescribing schemes. However, they were generally not supportive of community pharmacists having a more significant clinical role, such as prescribing, therapeutic drug monitoring, or running pharmacy screening programmes in blood pressure or cholesterol monitoring. There was a general trend in these studies that GPs were least supportive of tasks that allowed the pharmacist the opportunity to make independent decisions regarding a patient's treatment.

The majority of these studies identified in the literature asked GPs to comment about the extension of the community pharmacist's role hypothetically, as opposed to looking at actual examples of them

undertaking a multidisciplinary project. It could be argued that GPs in these studies may have had reservations because they may not have had exposure to community pharmacists undertaking these extended roles. This was not the case in this project, as the GPs did have some exposure and experience of community pharmacists undertaking extended roles. However, these data suggest that this has had little impact in altering their views about what they deemed as appropriate roles for community pharmacists to undertake. Hughes and McGann (2003) concluded from their study, that GPs who had previous contact with pharmacists through interdisciplinary projects did not have a more positive view of community pharmacists. They argued that contact with pharmacists in prescribing support roles may have just reinforced the GPs' perceived view of the community pharmacist, for example that of a 'shopkeeper' and they continued to be resistant against community pharmacists undertaking roles such as prescribing.

I believe that the response of participating GPs towards the community pharmacist's role extension in the MMS was seen as boundary encroachment. That is, as community pharmacists in this project attempted to extend their boundaries by having a greater input into managing and reviewing medication for patients (roles that have traditionally been the GP's responsibility), GPs responded by identifying roles that did not threaten or had little impact on their autonomy and professionalism.

These findings are also supported by literature which suggests that GPs often see the extension of the pharmacist's role as boundary encroachment (Eaton and Webb, 1979; Adamcik et al, 1986; Gilbert, 1997, 1998a-c, 2001; Britten, 2001; Edmunds and Calnan, 2001). For example, Gilbert

(1998a-c) has described the South African situation where community pharmacists have tried to expand their role but were often only permitted to do so, when the medical profession did not see a task as its exclusive domain. Adamcik et al (1986) concluded that physicians were more antagonistic towards the expansion of pharmacists' clinical activities in the community setting rather than in the hospital setting, as pharmacists working in a community setting typically exercised far more autonomy and had freedom from direct supervision compared to hospital pharmacists. Whilst this thesis can not comment on this (as only community pharmacists had participated in the project), it may offer some explanation as to why GPs were opposed to community pharmacists undertaking more extended roles.

Similarities can be drawn with other studies that have looked at collaboration between GPs and community pharmacists. In Edmunds and Calnan's study (2001), the participating GPs accommodated some of the initiatives to develop the community pharmacist's role, such as helping patients to manage their medicines better or repeat dispensing schemes. However, there were also reports that some GPs were unhelpful, obstructive and felt threatened by some pharmacists' roles, such as screening cholesterol levels or monitoring BP. In their study there was also evidence of widespread support from the GPs for community pharmacists conducting extended adherence projects in the older population because GPs perceived a need amongst this population for help with adherence, which they did not have time to do. Like Edmunds and Calnan (2001), the GPs in this project were also supportive for community pharmacists to have a role in reviewing medication in the older population and welcomed pharmacists' interventions when it fulfilled a support function and they could delegate responsibility.

Edmunds and Calnan (2001) concluded that GPs were supportive for pharmacists to have a bigger role in areas where there were limitation and exclusion for the community pharmacist, as they were not a threat to GPs' autonomy and control. I would also conclude that in this project, GPs saw the community pharmacist as a group to which they could delegate tasks to, but they discriminated between tasks that crossed the boundary into their territory and those which did not threaten their autonomy.

I also believe what can be detected from these data is how the GPs used more subtle measures to prevent the community pharmacist from encroaching into their territory. In these instances, the GPs were able to appear sympathetic towards the difficulties community pharmacists faced trying to conduct medication reviews, for example, having a lack of clinical information but used patients' welfare as a reason why these difficulties would always be barriers when there was often no strong evidence to rationalise this. The measures used by GPs to prevent encroachment will be discussed in turn.

9.3.9 Access to patients' medical records

As reported in Chapter 2, a more active pharmacist involvement in patient care has been less successful in the community setting mainly due to the pharmacists' lack of access to patients' medical records (Cotter et al, 1994). It is therefore no surprise that the lack of access to patients' medical records was shown to be a major limitation for community pharmacists to undertake a MMS in this project. In many instances, the pharmacists reported that they did not have sufficient clinical information to conduct a full medication review on the patients they saw in the project.

Over a third of the GPs interviewed acknowledged that community pharmacists would be able to undertake a MMS, providing they received training and had supervision. However, they stated the lack of access to patients' medical records could be a potential limitation for them to fully undertake this role, and acknowledged without access to medical records, pharmacists had often duplicated clinical recommendations already carried out by the GP. This argument was further supported by the GP quantitative data, which revealed that at the beginning of the project 37% of GPs believed access to patients' medical records was required to undertake a medication review, but this had increased to 98% by the end of the intervention period (The Community Pharmacy Medicines Management Evaluation Team, 2004).

However, despite GPs acknowledging this fact there were mixed opinions from GPs whether community pharmacists should have access to patients' medical records. Firstly, there were practical concerns held by the GPs regarding how community pharmacists could gain access to the medical records, particularly if they were not based within the GP practice, as records would not be able to leave the practice. Likewise, GPs stated that only community pharmacists that were known to the GP should have access to records. However, practical concerns were very much secondary to the issue of confidentiality. The majority of GPs voiced varying concerns about patient confidentiality being maintained if community pharmacists had access to more than just patient medication details. Edmunds and Calnan (2001) also found that GPs strongly resisted community pharmacists looking at patient records, largely on the grounds that they believed access would be a breach of patient confidentiality. Likewise, whilst several GPs acknowledged that pharmacists were bound by a code of

confidentiality, they still had reservations about letting community pharmacists have access to medical records. I believe these responses showed that GPs were in a position to act as a 'gate-keeper' to patients' medical records and choose who was permitted to have access to them. In doing so, they were able to prevent community pharmacists encroaching onto their territory because they knew how difficult it would be for community pharmacists to undertake medication reviews without them.

Whilst I would agree that the practical reasons put forward by GPs were legitimate and they were justified to have some concerns, it does not fully explain why GPs had no concerns letting practice pharmacists have access to medical records. The data obtained in this thesis however, does not give definitive explanations as to why GPs allowed practice pharmacists access to patients' medical records. As previously discussed, I believe GPs viewed practice pharmacists and their clinical capabilities differently to that of community pharmacists. This fact alone may offer an explanation as to why GPs were happy for practice pharmacists to access patients' medical records.

I would also hypothesise that most GPs were not so threatened by practice pharmacists because they were based within the GP practice, and GPs were able to decide and oversee what work they were undertaking. This is in contrast to community pharmacists, where GPs are not a position to oversee the community pharmacist's work. It may also be due to the fact that practice pharmacists are often employed by the GP practice, so again they are much more under the control of the GP.

Lack of access to patients' medical records highlights the difficulties faced by community pharmacists attempt to reprofessionalise, particularly if they

are not located near the GP practice, or have not fostered a relationship with their local GP. The latter point is particularly pertinent due to community pharmacists' positions often being filled by locum pharmacists. This also raises issues surrounding the future use of electronic national care records. As part of the Government's pharmaceutical public health strategy 'Choosing health through pharmacy' (Department of Health, 2005a), it is envisaged that pharmacists will have a greater contribution to public health. In time, every person will have an electronic national care record, which will provide pharmacists with more clinical information about a patient and will also enable pharmacists to inform other health care professional of their interventions they have made. For example, that they have given advice on smoking cessation. If this is to be successful then it is important to overcome GPs resistance to community pharmacists having access to patients' medical records.

9.3.10 Undermining the GP/patient relationship

Edmunds and Calnan (2001) concluded in their study that there was some evidence that doctors saw pharmacists' participation in clinical activities as crossing the boundary into their professional roles and consequently undermining the doctor/patient relationship. The GP qualitative data indicated that there were mixed opinions from GPs about community pharmacists providing medication reviews. The interviewed GPs did not cite any advantages that extra collaboration with community pharmacists could have on patient care, other than suggesting it might help reduce GPs' workload. Conversely, several GPs had concerns that it could confuse patients over who had overall responsibility for their care. In a similar vein, a few GPs reported that they had been unhappy about the pharmacist recommending clinical changes to their patients because they felt it had

put them in a difficult position, as patients were expecting changes to be made as a result of seeing the community pharmacist, and had in essence undermined their authority. A small number of GPs also had concerns that community pharmacists often did not know patients well enough to make decisions about their medication. However, almost all the GPs interviewed thought the MMS had had a positive impact on patients, in that it allowed the patient to have the opportunity to discuss medication issues with another health professional, particularly if they were fearful about discussing medication issues with their GP. GPs also stated community pharmacists usually had a more informed view than the GP whether patients were actually taking their prescribed medication and they also admitted they often did not have time to undertake medication reviews with patients. I believe that some GPs in this project may have seen the activities of community pharmacists as undermining their authority and perhaps used arguments such as community pharmacists not knowing their patients well enough, as a reason why community pharmacists should not be conducting medication reviews, even though they had cited benefits towards the community pharmacist having a greater input into reviewing patient's medication.

9.3.11 GP and nurse collaboration

The data suggests that many pharmacists held concerns that within the primary care setting, nurses were encroaching on roles they could potentially conduct. Many pharmacists interviewed saw nurses as threatening their opportunity to extend their role and believed that they were competing with nurses when trying to secure extended roles for themselves. They were also frustrated that GPs appeared to support nurses in undertaking new roles within the primary health team. There was some

indication from the GP data that GP practices had practice nurses conducting extended roles, and several GPs admitted that nurses had been able to extend their role within the primary care setting with support from GPs. Pharmacists therefore believed that GPs were more encouraging towards primary care nurses expanding their role and delegating tasks to them. As a consequence, pharmacists feared that nurses were in a stronger position, as they were cheaper to employ and less threatening to the GPs.

The literature is conflicting regarding pharmacist and nurse role extension. Competition between pharmacists and nurses was demonstrated in Adamcik et al (1986) study, whereby nurses who had worked with a clinical pharmacist were significantly more supportive of pharmacists undertaking clinical activities but they did not support clinical role activities which directly threatened their role. However, Gilbert (1997) described the formation of a 'therapeutic alliance' between the nurse and community pharmacist to form a 'united front' against the medical profession. The partnership developed between these two professions allowed the pharmacists to expand their professional activities without invading the nurse's professional domain.

I would argue that the pharmacists in this study saw doctors and nurses as forming a 'therapeutic alliance' against the pharmacy profession. This may have been due to GPs and nurses having a more established relationship, so the GP was more favourable towards nurses extending their role. However, it may also have been a subtle way of the GP preventing community pharmacists from encroaching into their territory because they were able to control the activities of practice nurses more than the community pharmacist.

9.3.12 Summary

A number of attitudinal barriers have been identified between the community pharmacists and GPs. Whilst some community pharmacists believed GPs perceived them as fellow health professionals, some community pharmacists believed GPs perceived them as 'shopkeepers', were frustrated by GPs not having a clear understanding of their current role with regard to patient confidentiality. They were also frustrated that GPs supported nurses extending their role within the primary health team. Likewise, GPs had a poor understanding of a community pharmacist's role and some GPs expressed a concern that commercial interests could affect a community pharmacist's advice.

Almost all pharmacists and GPs stated they had a good working relationship with each other prior to the MMS commencing, although they often had little face-to-face contact. The project had a limited impact on improving relationships between community pharmacists and GPs, with relationships and GPs' perceptions remaining unaltered in many instances. This was mainly due to the limited or non-existent contact between the two professions throughout the project so the opportunity to improve relationships did not arise.

The data suggests however, that where there was an established relationship between the community pharmacist and the GP, the GP was more supportive of community pharmacists extending their role. The importance of having a good relationship with the GP was also reflected by almost all pharmacists stating that having an established relationship with the GP impacted on the success of a MMS. There were examples given by

pharmacists that by having an established relationship (or when the relationship improved) with the GP, this had a positive effect on the GP regarding the community pharmacist's clinical capability and made contacting and conveying information to the GPs much easier. This finding is supported by the literature, which suggests that improving the relationship between GPs and pharmacists can have a positive effect on the GPs' attitudes towards the pharmacist's clinical role (Bodgen et al, 1998; Muijrs et al, 2003).

The GPs in this project expressed conflicting opinions towards community pharmacists extending their role and having a greater degree of collaboration with them. What can also be concluded is that some GPs identified specific roles which they believed community pharmacists could undertake if they wanted to extend their roles. These roles usually had little self-autonomy and were seen to benefit the GP by reducing their workload. I believe the response shown by GPs towards the community pharmacist's role extension in the MMS was seen as boundary encroachment. Whilst GPs acknowledged a number of barriers community pharmacists faced if they wanted to undertake full medication reviews, I have argued that GPs were able to use some of these barriers to their advantage to prevent pharmacists undertaking this new role. For example, by stating they would have concerns over pharmacists having full access to patient's medication records whilst acknowledging how difficult it was to undertake a medication review without them.

9.4 SECTION THREE

9.4 Introduction

I have argued in the previous section of this chapter, that participating GPs viewed the attempted role extension of community pharmacists as boundary encroachment. In the final section of this chapter, I discuss the factors that were identified by community pharmacists as barriers against them undertaking a MMS. I argue that the majority of the participating pharmacists experienced the barriers identified; yet a small proportion of the participating pharmacists overcame them and conducted a full MMS. I posit that the difference between the pharmacists that managed to overcome the identified barriers lay in their motivation and aspirations, and support this assumption by looking at the literature on pharmacy innovators.

I conclude this section by arguing that community pharmacists saw this opportunity at role extension as an opportunity towards greater job satisfaction, and were not actively encroaching on the GP's territory, as they had neither the organisational means nor the motivation to do so. Conversely, community pharmacists in this project were more concerned that primary care nurses were encroaching on potential roles they could conduct and believed GPs were encouraging nurses to do this.

9.4.2 Barriers identified by community pharmacists

Community pharmacists identified a number of barriers which they believed prevented them from fully undertaking a MMS. The key barriers

were identified as: lack of GP engagement, lack of access to patients' medical records and a host of organisational barriers, such as lack of consultation space, time constraints, lack of remuneration, requiring a second pharmacist and not being situated near the GP practice. These barriers were identified by the majority of participating pharmacists and were identified as barriers throughout the course of the project. The quantitative data undertaken for the larger study also supports these findings, with 83% of pharmacists reporting that they had conducted this service in their own time, 97% believed that protected time was needed to undertake this type of service and 72% believed a second pharmacist would be required (The Community Pharmacy Medicines Management Project, 2004).

The barriers identified in this project are similar to those reported in the literature. For example, Chen et al (1999a) identified three main categories of barriers that pharmacists faced when practising in the ambulatory setting. These included: cognitive barriers (whereby pharmacists received inadequate education and training to conduct a new role), attitudinal barriers (these centred around the pharmacist's fear of contacting prescribers and perceived interprofessional conflict), and situational barriers (these included factors such as inadequate remuneration, time required to develop and deliver new professional services, limited information about the patient and architectural barriers).

Other authors investigating the restraints impacting on pharmaceutical care implementation have also identified similar barriers (Miller and Orteimer, 1995; Trinca, 1995; Bell et al, 1998a; Rutter et al, 2000; Rushton, 2001; Rossing et al, 2001). In Bell et al (1998) study, which aimed to ascertain pharmacists' attitudes towards pharmaceutical care and

its implementation, the authors, found that the degree of implementation was restricted, although many pharmacists were eager to develop professional roles. The pharmacist qualitative data in this research indicated that pharmacists were positive about the concept of conducting a MMS and identified the need to undergo this role extension. However, whilst viewing the MMS as a positive experience, few pharmacists conducted a full MMS due to the identified barriers discussed at the beginning of section three.

The Departments of General Practice and Primary Care in Aberdeen (2003), conducted a systematic literature review on the change and evolution in community pharmacy. They concluded that there was a consensus that pharmacists were in favour of providing pharmaceutical care and extended services. However, a prominent feature in the literature was barriers to providing such services, and therefore creating an appropriate supportive working environment would be a vital process if pharmacists were able to undertake such extended roles. They also concluded that financial implications of providing extended services were highlighted as a major deterrent to changing work practices. Inadequate and inappropriate funding systems based on dispensing volume were the cause of many pharmacists not changing working systems or professional practice.

Inadequate remuneration was identified as a barrier by some interviewed pharmacists, who stated that they would not be conducting follow-up interviews on patients due to an inadequate payment. Likewise, during the course of the focus groups and interviews, pharmacists stated many pharmacists would not undertake a MMS unless they were adequately remunerated, nor would they invest in a confidential area in their

pharmacy unless they were guaranteed that this service would generate a profit.

Whilst the participating pharmacists in this project all identified and experienced similar barriers, what can be detected from the data is that a small proportion of pharmacists had found ways to overcome some of the barriers and conduct a full MMS. Whilst the majority of pharmacists stated they did not see GPs face-to face to discuss patients, or accessed patients' medical records to obtain the clinical information they were lacking, a few pharmacists reported that they had done this. For example, a few pharmacists had arranged to go into the GP practice. This had enabled them to access medical records and receive more information about a patient's medical history, which in turn helped them to conduct a full medication review. Likewise, despite experiencing time pressures some pharmacists still managed to follow patients up over the twelve-month intervention period and met with GPs to discuss patients. One pharmacist stated that pharmacists should not receive remuneration to conduct a medicines management role and therefore did not see this as a barrier.

It could be argued that the lack of GP engagement often had practical consequences for the pharmacist. Lack of feedback from the GP made it difficult for the pharmacist to follow up patients (which sometimes had an adverse effect on the patient's confidence in the pharmacist) and caused considerable frustration and disappointment for the pharmacist. Bradshaw and Doucette (1998) argued that the reactions and attitudes of GPs could either hinder or facilitate an expansion of the pharmacist's role. Likewise, Mrtek and Catizone (1989) argued that community pharmacists would only embrace more clinical roles when other health professionals were at hand, with whom they could interact as respected peers. Whilst I believe that the

attitudes of GPs and other healthcare professions was a major factor in helping community pharmacists successfully undertake a medicines management role, I believe that this project demonstrated that the individual motivation and aspirations of a community pharmacist also contributed as a major factor towards successful role extension. As such, I believe the lack of motivation shown by the majority of pharmacists in this project largely limited their ability to fully undertake a MMS role.

9.4.3 Motivation of community pharmacists

Participating pharmacists stated their main motivational factors to become involved with the MMS was the opportunity to move towards a more clinically orientated role, have greater contact with patients, increase their job satisfaction and prove that community pharmacists could do more than 'dispense'. Similarly, Rutter et al (2000) found that pharmacists aspired to have a greater contact time with patients/customers and decrease the time they spent dispensing on a day-to-day basis, along with the opportunity to extend their role to provide new services.

However, as previously discussed it is interesting to point out that these data suggest that only a minority of the community pharmacists fully utilised this opportunity and conducted a full medicines management role. For example, only four pharmacists stated they had conducted formal follow-up interviews with patients over the twelve month intervention period. This finding reflects the literature on service innovation in community pharmacy practice. Despite strong drives within the pharmacy profession and external factors such as Government policies for community pharmacists to extend their roles, much of the literature available for innovation is characterised more by the efforts of individuals and

occasionally groups, rather than coherent and structured professional development (Hepler, 1987; Tan et al, 1996; Higby, 1997; Bell et al, 1998b; Holland and Nimmo, 1999a; Rushton, 2001). For example, Hepler (1997) and Higby (1997) have both stated that rather than changes in pharmacy practice occurring simultaneously throughout the profession, there has been an uneven adoption of new practice models within the pharmacy profession. Holland and Nimmo (1999a) have also stated 'Pharmaceutical care is as much a dream as a reality' and as a consequence a major proportion of pharmacists in both community and other health care settings still perform distributive functions, rather than undertaking a pharmaceutical care role.

Holland and Nimmo (1999a-b, Nimmo and Holland 1999a-b, 2000) examined pharmacy practice as it evolved in the USA and then attempted to develop a framework for understanding innovation in the pharmacy environment. Nimmo and Holland (1999a) stated a changeover to pharmaceutical care was accomplished in stages, and the progression towards the pharmaceutical care model might not be under the control of the individual pharmacist. They also acknowledged that in order to achieve a change in practice, the pharmacist might not only need to acquire new knowledge and skills, but might also have to be professionally 'resocialised' and given time to incorporate themselves into the new model. Likewise, they stated the efforts to encourage practice change should be focused on the individual pharmacist, because the decision to change ultimately rested with them rather than the organisation or the profession. They proposed the Holland-Nimmo practice change model and posited three key elements for promoting innovation. These were: a practice environment conducive to change, availability of appropriate learning resources and effective motivational strategies for the practitioner.

The model proposed that regardless of the nature of a proposed change in practice, these three elements simultaneously had to be satisfied before the change could be implemented. If any of the elements were not met, or were not met simultaneously with the others, it was predicted that the process of achieving change would falter. These authors also suggested that there were two major factors shaping receptiveness to practice change, the practitioners' personalities and their current state of professional socialisation (Nimmo and Holland, 1999b).

Applying the Holland-Nimmo practice change model to the participating pharmacists in the MMS, it could be postulated that practice change did not occur in the majority of cases, because these three elements had not been met simultaneously. Whilst community pharmacists had received training to increase their knowledge on CHD (so it could be argued that there had been the availability of appropriate learning resources), it could be argued that a practice environment conducive to change and effective motivational strategies for the practitioner had not always occurred. For example, some pharmacists stated that they had difficulty following up patients because they were not allocated a second pharmacist or given a locum, as had been the case in the initial patient consultations. Regarding the pharmacists that had conducted a full MMS, then their personality and professional socialisation may also have been an important factor. However, it is difficult to comment on this, as the thesis did not look at these factors.

The research reporting these innovations has mainly focused on describing the process and outcomes of service development and has rarely analysed the individual and structural factors associated with practice change. Several studies however, have looked at whether there are 'identifiable

characteristics' within pharmacists that have adopted innovative change (Tan et al, 1996; Bell et al, 1998b; Doucette and Jambulingham, 1999; Rushton, 2001; Tan and Blenkinsopp, 2003).

Rushton (2001) aimed to identify the characteristics that influenced the adoption of an 'extended role' in community pharmacists within the UK. Her data suggested involvement in 'extended roles' activities, were more to do with the pharmacist's professional orientation than the settings in which they worked. The greater the level of perceived autonomy the pharmacist had, the greater the level of involvement in the 'extended' role. Closely linked to perceived levels of autonomy was the position of the pharmacist in the pharmacy. For example, owners and managers were more likely to undertake 'extended roles' than locums. However, where roles required skills not traditionally associated with the community pharmacist's role, for example, the provision of screening services, then pharmacist involvement was relatively low. Rushton suggested areas that could facilitate the process of role expansion. These included establishing means by which pharmacists were able to leave their pharmacies to work with other professionals, and to have link supports between the community pharmacist and the Pharmaceutical Advisor.

The points made by Rushton (2001) are pertinent due to many pharmacists being employees. Pharmacists in this project who were employed, particularly for multiple chain companies commented they had often received a lack of company support. Unless companies also engage in service development then it is difficult for these pharmacists to leave the premises or provide the provision of new services.

Bell et al (1998b) used the behaviour pharmaceutical care scale (BPCS) to assess pharmacists' efforts to provide pharmaceutical care. They found that pharmacists routinely screened patient records and validated prescriptions, but rarely documented activities relating to patient care, evaluated health status or engaged in interprofessional interactions to optimise patient care or satisfaction.

This was clearly demonstrated in this project, with many pharmacists stating that they had rarely communicated with the GPs face-to-face to discuss clinical recommendations. Likewise, many pharmacists had not formally followed-up patients with interviews; rather they had seen them on an opportunistic basis.

Tan et al's (1996) explored the hypothesis that innovation was related to a set of largely generic characteristics possessed by those who promoted professional change, together with appropriate elements in the work environment. They suggested that the achievement of organisational excellence was found in the match between the characteristics of individuals that fitted those required by the internal and external environments of an organisation. They suggested that they would expect to find specific characteristics of pharmacists that were significantly associated with superior performance in the particular organisational contexts which demanded those characteristics. Using the critical incident technique, a structured interview and the Kirton Adaption Innovation Inventory (Kirton 1987 - see Tan et al, 1996) the authors explored the characteristics of what they termed 'leading-edge practitioners' (LEPs). They noted that LEPs were more likely to initiate more actions, be more patient-centred, more effective soft net-workers, more focused on staff developments and more effective influencers than a control group of

pharmacists. They suggested that LEPs were more likely to be more proactive and have more positive and developed attitudes to inter and intra-professional practice.

Furthering their research on innovation in community pharmacy, Tan and Blenkinsopp (2003) defined innovators as 'Early Adopters' of new practices initiated or sponsored by Health Authorities or PCTs in response to an identified need. Table 9. summarises the characteristics of individual innovators that they identified through their work. They stated all the interviewed and visited individual innovators showed evidence of vision and action orientation. All were effective communicator/influencers and were patient-centred. In addition, they were self-confident and showed evidence of focusing on their own learning. They were effective practitioners at balancing the professional and the commercial and were entrepreneurial, as well as effective users of resources.

In the USA, Doucette and Jambulingham (1999) have developed and validated a measure of entrepreneurial orientation (EO), which they found to be positively correlated with the up-take of specialised services (e.g. specialised compounding, asthma and diabetic care management, and compliance monitoring). They suggested that high levels of EO were a useful indicator of whether a pharmacy would develop a new and innovative service. The traits associated with EO were pro-activeness, innovativeness, risk taking, autonomy, competitive aggression and work ethic.

The literature has suggested that 'innovators' are more likely to share certain characteristics such as being more patient-centered and being action orientated. The pharmacist qualitative data did reveal that some

pharmacists interviewed had undertaken a number of other local pharmacy initiatives prior to undertaking the CPMMP. Likewise, several of the pharmacists were members of the LPC and had been responsible for their pilot areas putting in a bid to take part in the CPMMP. It could also be argued that some pharmacists appeared positive in their attitudes to interprofessional practice and some were very patient-centered. However, it is difficult to draw any conclusions from the pharmacist qualitative data, whether the motivated pharmacists in this project also shared these identifiable characteristics, as the thesis did not set out to specifically look at this.

Table 9. Individual Innovator Characteristics

INNOVATOR CHARACTERISTIC
Leadership
Vision
Optimism
Flexible
Positive professionalism
Seeing the 'big picture'
Action-oriented
Strategic perspective
Networking with non-pharmacy contacts
Professional networking/leadership outside the pharmacy
Information-seeking
People focus
Effective communicator
Empathy
Patient-centred
Team approach/seeking consensus with staff
Resolves conflict
Open/trusted
Personal drive
Self-confident/positive
Focus on own learning and development
Business focus
Commercial/professional balance
Shares information
Understanding of organisational dynamics
Effective use of resources
Entrepreneurial
Breadth of innovators

From: Tan and Blenkinsopp (2003) Understanding Innovation in Community Pharmacy -- A Final Report. Royal Pharmaceutical Society of Great Britain.

Whilst the work surrounding service innovation is important, I believe there is a tendency for this type of research to view innovation as an isolated issue. For example, Holland and Nimmo did not refer in any depth to the historical and structural context in which innovation must be promoted. It is important to acknowledge that there are other issues that may impact on motivation and innovation, such as interprofessional relationships and role encroachment. These factors might also shape pharmacists' perceptions of their scope to innovate and their willingness to engage in extended roles. As these data have shown in this thesis, community pharmacists' progression is interdependent with other health professionals. Abbott (1988, 1993) suggested that rather than focusing on one profession, systems of professions should be focused on, as developments in one profession could directly (or indirectly) affect all other professions in the same system. He suggested the dynamics in professional relations were not only dependent on the activities of individual professions, but also on the behaviour of other professions in the context of technological and social changes within the same environment.

9.4.4 Community pharmacists' views about boundary encroachment into GPs' territory

I now wish to discuss how I believe the pharmacists in this project viewed their chance at role extension. Whilst I have argued that GPs saw the role extension of community pharmacists as encroaching on their territory, I believe the qualitative pharmacist data suggested that the pharmacists saw this project as an opportunity to have a greater clinical role, rather than the opportunity to encroach into the GPs territory. Pharmacists stated their main aims for participating in the project, was for the chance to improve relationships with patients, have a closer working relationship with their

local GPs and to demonstrate that community pharmacists could undertake new roles. Pharmacists stated they often told patients whilst conducting medication reviews that they were 'simply helping the doctor out' and the doctor would still have overall responsibility for their medication. Likewise, pharmacists often stated they did not feel confident to be making clinical recommendations.

Edmunds and Calnan (2001) concluded when reviewing studies in which pharmacists were undertaking extended roles, those community pharmacists saw a new role as survival, rather than a chance to take power away from GPs. They argued that despite pharmacists wanting to pursue more clinical roles and have more involvement with patients, they saw an extended role as helping patients with adherence issues rather than taking on more of a clinical role, and did not seem to want to encroach on the GPs' territory. Adamcik et al (1986) also stated there was variability amongst pharmacists about their thoughts on extending their role, with young women tending to be more supportive of the expanded role activities than men. They concluded this might be due to women being more comfortable with person-to person contact and with the interprofessional interaction demanded of a clinical role. They also speculated that woman could pose less of a threat to male physicians' autonomy and authority, and this might make it easier for women pharmacists to take on more clinical activities. Stein (1967) stated that nurses had been able to wield considerable power and autonomy by 'tactful' interaction with male physicians. Adamcik et al (1986) postulated that women pharmacists might also play this game, thus gaining more freedom in undertaking their own roles.

As previously discussed, GPs suggested a number of roles which they believed would be more appropriate for community pharmacists to undertake. As such, they were happy to relinquish some tasks, for example, managing repeat prescriptions to the community pharmacist. However, I do not believe this data has indicated that many GPs were willing to relinquish a medication role to the community pharmacist.

Mesler (1991) stated that pharmacy's clinical role had developed through a slow process of encroachment and task delegation, which was taking place simultaneously, and that many physicians had become aware of the need for such assistance from pharmacy and were therefore relinquishing some tasks to them. However, I do not believe the qualitative pharmacist and GP data indicated that this process had occurred either. Whilst GPs frequently indicated there were roles that community pharmacist could undertake, I believe they did not relinquish these roles because they required assistance from pharmacists, but rather it was a convenient way of reducing their workload without having their autonomy threatened. Likewise, the lack of motivation exhibited by the majority of the participating pharmacists meant that there was little evidence of pharmacists encroaching on GPs' roles in this project. I would postulate that due to community pharmacists' lack of motivation, along with the organisational barriers they faced that it would be unlikely that community pharmacists would accept those roles that GPs were happy to relinquish to them.

As discussed in Chapter 2, boundary encroachment has also occurred to community pharmacists by physicians threatening the dispensing function of community pharmacists (Spencer and Edwards, 1992; Gilbert, 1997, 2001). Whilst no pharmacist interviewed made reference to physicians encroaching on their territory, as previously discussed some pharmacists

had concerns that nurses within the primary care setting were undertaking roles they could potentially conduct. As such, pharmacists viewed this as potential boundary encroachment and feared that nurses were in a stronger position to undertake extended roles as they were cheaper to employ and less threatening to the GPs.

9.4.5 Summary

The participating pharmacists identified a number of barriers which they believed prevented them from fully undertaking a MMS. The key barriers identified were, lack of GP engagement, lack of access to patients' medical records and a host of organisational barriers, such as time constraints and lack of remuneration. These were identified as barriers throughout the course of the project and are similar to those identified in the literature which has investigated the restraints impacting on pharmaceutical care (Miller and Orteimer, 1995; Trinca, 1995; Bell et al, 1998a, Chen et al, 1999a; Rutter et al, 2000; Rushton, 2001; Rossing et al, 2001).

Despite the main motivational factor given by pharmacists for undertaking this project as the opportunity to extend and develop the community pharmacist's role, there was a lack of patient follow-up and often initiative demonstrated by the participating pharmacists undertaking the MMS. However, a small number of pharmacists successfully conducted a full MMS despite identifying these barriers. This could indicate that the pharmacist's motivation is also a major factor towards successful role extension for the community pharmacist, and the majority of pharmacists in this project were largely responsible for limiting their ability to undertake a MMS role due to their lack of motivation. This finding reflects the literature on service innovation in community pharmacy, where much of the literature for

innovation is characterised by the efforts of individuals rather than coherent and structured professional development (Tan et al, 1996; Hepler, 1996; Higby, 1997; Bell et al, 1998b; Holland and Nimmo, 1999a; Rushton, 2001).

From a sociological perspective, whilst I have argued that some GPs viewed the role extension of community pharmacists as boundary extension, the data suggests that pharmacists viewed the project as an opportunity to have a greater clinical role, and they had neither the motivation nor organisational means to encroach on GPs' territory. Conversely, community pharmacists had concerns that nurses within the primary care setting were encroaching on roles they could potentially undertake.

9.5 Conclusion

This thesis set out to critically assess the views and experiences of community pharmacists and GPs involved in a MMS after its introduction. It aimed to explore how relationship and perceptions of each other could influence community pharmacists carrying out a MMS, from the viewpoint of both community pharmacists and GPs.

Whilst the data has suggested that there were good relationships between many community pharmacists and GPs, this thesis has identified a number of attitudinal barriers that existed between the two professions. These included professional hierarchy, GPs' lack of awareness of a pharmacist's training and role in health care, and concerns that commercial interests could potentially affect a community pharmacist's clinical abilities.

Furthermore, although some GPs were positive about working collaboratively with pharmacists to deliver a MMS, other GPs in this project expressed more cautious opinions towards collaborative working. Concerns identified included pharmacists' lack of knowledge about a patient's clinical history, anxieties about the potential loss of control over patient management, increased work load and the scope for boundary encroachment was also referred to. GPs in this project were also generally unwillingly for the community pharmacist to have full access to patients' medical records due to concerns over patient confidentiality being maintained.

From the view point of community pharmacists, this research suggests that they were more positive about the concept of the MMS than the GPs, but were conscious of many GPs' attitudes towards community pharmacists. However, despite many pharmacists viewing the MMS as an opportunity to develop their role, many pharmacists did not fully utilise this opportunity. Community pharmacists identified a number of barriers (both attitudinal and organisational) that they believed prevented them from fully undertaking a MMS. Whilst the pharmacists in this project identified similar barriers, some pharmacists had managed to conduct a full MMS. This suggests that the individual aspirations and motivation of a community pharmacist also contributed as a major factor towards successful role development for the community pharmacist. I believe the lack of motivation shown by the majority of pharmacists in this project largely limited their ability to fully undertake a MMS role. However, as previously discussed it is important to acknowledge that there are other issues that may impact on a pharmacist's motivation and innovation, such as interprofessional relationships with their local GPs.

From a sociological perspective I have argued that GPs viewed the role extension of the community pharmacists as potential boundary encroachment. Whilst GPs were willing to delegate some tasks to the pharmacist, these were usually roles that had little autonomy and were seen to benefit the GP by reducing their workload, rather than utilising community pharmacists' skills in reviewing patients' medication. However, I have argued that community pharmacists viewed the MMS as an opportunity to have a greater clinical role, and there was little evidence of the pharmacists actively encroaching on GPs' territory, largely due to a lack of motivation exhibited by the community pharmacists. Conversely, community pharmacists had concerns that nurses within the primary care setting were encroaching on potential roles that they could potentially undertake.

The introduction of this MMS had a limited impact on improving relationships and attitudinal barriers between community pharmacists and GPs, with relationships and GPs' perceptions remaining unaltered in many instances. I have postulated that this was mainly due to the limited contact between the two professions throughout the project so the opportunity to improve relationships and break down attitudinal barriers did not arise. However, little consideration was given in this project regarding the importance in helping community pharmacists and GPs to foster better relationships. This is a pertinent point as these data suggest that where there was an established relationship between the community pharmacists and the GPs, the most positive feedback about the MMS was given by both professions.

This piece of research has highlighted attitudinal barriers between community pharmacists and GPs, along with a series of organisational barriers that need to be addressed in order to accomplish effective collaborative working and allow community pharmacists to undertake a full MMS. Future research is needed in order to evaluate how these barriers can be overcome. Chapter 10 provides an overview of the literature that has looked at strategies and approaches to try and help break down attitudinal barriers between pharmacists and physicians and develop relationships.

10. EPILOGUE

10.1 Introduction

In this chapter I wish to give an overview of the literature that has looked at initiatives and strategies that have been suggested, or used to break down attitudinal barriers and enhance collaborative working between pharmacists and physicians.

The data has suggested that the MMS had a limited impact on improving relationships between community pharmacists and GPs, with relationships and GPs' perceptions remaining unaltered in many instances. I have postulated that this was mainly due to the limited contact and communication between the two professions during the MMS. As I discussed in chapter 9, I believe insufficient emphasis was placed on encouraging community pharmacists and GPs to meet in this project and address any attitudinal barriers that existed between them.

Likewise, role specification, trustworthiness, and relationship initiation have all been positively associated with increased physician/pharmacist collaborative practice (Naccarell and Sims, 2003; Brock and Doucette, 2004; Zillich et al, 2004, 2005). This was reflected in this project, by GPs stating that if they did not trust a community pharmacist then it was difficult for them to have faith in the pharmaceutical advice given to them. Similarly, pharmacists stated that if GPs trusted them then it was much easier to convey information to them and GPs were more likely to listen to their advice. However, without regular communication, particularly in the initial stages of the project, then these issues were also not addressed. The

next section of this chapter focuses on the approaches that have been used to encourage collaboration between pharmacists and physicians.

10.2 Addressing collaborative issues

Reebye et al (1999, 2002) suggested a number of approaches that could encourage collaboration (which they termed positive territoriality¹⁵) and minimise resistance against collaboration (which they termed negative territoriality) between pharmacists and physicians. The approaches focused on three different areas, each will be discussed in turn.

10.2.1 Interaction between pharmacists and physicians

As previously discussed, the participating GPs had a limited knowledge of the community pharmacist's role and training. Reebye et al (1999, 2002) suggested that tensions between pharmacists and physicians may arise because of physicians' mistaken or limited perceptions of pharmacists. In a similar vein, lack of understanding of the pharmacist's role could be one of the factors that might lie behind the negatively perceived attitudes of some physicians. Adamcik et al (1986) suggested that regardless of how another person's social role was perceived, the opportunity to gain first hand experience in interaction with that person, allowed the potential opportunity for negotiation. If pharmacists and physicians had the opportunity to interact directly, for example, via face-to-face communication, then previously held stereotypes could be questioned and attitudes and values may be changed. Reebye et al (1999, 2002)

¹⁵ Territoriality involves an attempt at enforcing control or access to an area and to things in it, as pharmacists increase their roles then their territory expands. If role expansion is accepted by the physician, this can be perceived to be 'positive territory'. If the physician is threatened by the pharmacist's activities then this can be perceived as 'negative territory'.

suggested that structured, or even informal, professional meetings involving the two parties could be a way forward to induce collaboration.

The literature suggests that pharmacist/physician meetings have been used to promote patient-centred care to increase interprofessional relationships (Chen et al, 1999a, 1999b; Reebye et al, 2002). For example, work in Australia (Chen et al, 1999a, 1999b), has highlighted the importance of breaking down professional barriers prior to community pharmacists and GPs undertaking a collaborative service looking at medication regimens. They constructed a conceptual framework which community pharmacists and GPs could apply in their local environment to assist in the smooth implementation, dissemination and establishment of new cognitive services within primary care. The model was derived from two theoretical models: the Diffusion of Innovations model and the Linkage model¹⁶. In their study, community pharmacists and GPs had an initial meeting to discuss the potential for collaboration review, followed by the formation of a medico/pharmacy committee to oversee all project activities. Meetings were also held to show both parties the proposed medication review process. After the community pharmacists had received training to undertake medication reviews, both parties had regular meetings to discuss the medication reviews. The authors concluded that collaboration between community pharmacists and GPs was the key to the successful establishment of new clinical pharmacy services in the primary care setting. They stated their model encouraged face-to-face

¹⁶ The Diffusion of Innovation model, proposed by Rogers (1983) conceptualises optimal processes for the effective development, dissemination and implementation of interventions which aim to induce widespread behaviour change for the overall benefit of society. The linkage model, developed by Havelock (1969) represents a strategy for overcoming barriers to effective development, diffusion and implementation of the innovation, by the incorporation of collaboration and strategic planning activities between the provider of the innovation (resource system) and the user of the innovation (user system) (in Chen et al, 1999a).

interprofessional communication, which in turn helped breakdown barriers and helped fostered collaboration between the two professions.

Reebye et al (2002) have described the situation in the Netherlands. In the Dutch system, pharmacotherapy consultation groups (PTC) have been set up by the Royal Dutch Pharmacy Association for the Advancement of Pharmacy and the National General Medical Association. Most PTC groups consisted of five to twelve GPs and one to three community pharmacists, who met around six times a year to exchange information about drug therapy and work towards guidelines. Community pharmacists and GPs were expected to attend these meetings and could gain continuing education points by doing so. The whole process was supervised by a steering committee of representatives from national organisations of GPs, health insurance companies and the Ministry of Health. The authors stated the PTCs sessions had enhanced the process of communication between physicians and pharmacists in the Dutch primary health care setting.

Reebye et al (2002) stated the main advantage of these collaborative meetings was that it increased face-to-face professional interaction between pharmacists and physicians, and allowed integration of expertise from both professions to target optimal prescribing and dispensing. The sessions tended to focus on general prescribing issues rather than the care of individual patients. However, limitations of these meetings were noted as pharmacists wanting more interactive meetings, focusing on practical issues concerning patient care.

As previously discussed, in this project community pharmacists and GPs were invited to attend a launch meeting which aimed to give an overview of the CPMMP. Subsequent meetings were held during the course of the

project which provided participants with an update of the progress of the project, but participation was voluntary. Little consideration was given regarding the importance in helping community pharmacists and GPs to foster better relationships by holding joint meetings before the project began. Had this been done, it may have allowed some perceptions and attitudinal barriers to be broken down and had a more positive effect on the participating pharmacists and GPs. Likewise, these meetings would have allowed the pharmacists the opportunity to discuss with the GPs what information they required from the patients' medical records. This would have potentially allowed the GP to understand the role of the community pharmacist in the MMS, and the opportunity to inform the pharmacist their practice needs. This may have helped ease some of the GPs' concerns surrounding community pharmacists having access to the patients' medical records.

10.2.2 Training of pharmacists and physicians

As previously described in chapter 3, pharmacists received training from CPPE prior to undertaking the project. Whilst pharmacists stated they believed they had a good CHD knowledge as a result of the training, some pharmacists still feared challenging GPs' prescribing decisions. Likewise, GPs openly admitted they had a poor knowledge surrounding a pharmacist's training and knowledge base. The second area that could potentially have had an impact on collaborative working was through the provision of interprofessional (or multiprofessional) shared learning¹⁷

¹⁷ Shared learning is usually interpreted as students from different professional backgrounds learning together (Crow and Smith, 2003). Interprofessional learning denotes activities involving two professional groups, whilst multiprofessional learning denotes activities involving three or more professional groups.

and/or team teaching¹⁸. This would potentially allow professionals to develop knowledge about each others roles, allow high levels of interpersonal skills to develop, and an understanding of the contribution that each health profession could make to patient health outcomes. It has been suggested that multidisciplinary training at both undergraduate and postgraduate level may help to improve some of the attitudinal barriers which currently exist between healthcare professionals (Horsborough et al., 2001). Likewise, Parsell and Bligh (1999) have suggested that multidisciplinary learning was a potential tactic that may help build mutual respect rather than foster competition between the professions.

Some studies (Carpenter, 1995; Hind et al, 2003) have looked at attitudes between healthcare professionals. Carpenter (1995) demonstrated the existence of interprofessional stereotypes amongst health care professionals by looking at the stereotypical views of a small group of nursing and medical students. They found effective working relationships within multidisciplinary clinical health care teams were influenced by inter-group stereotyping, with positive stereotyping enhancing collaborative teamwork. They concluded interprofessional education had the potential to challenge professional misconceptions.

Likewise, Hind et al (2003) looked at interprofessional attitudes of health care professionals towards their own and other professional groups. At the beginning of their pre-registration training, doctors, dieticians, physiotherapists, pharmacists and nurses showed signs of high identification with their professional group and a strong willingness to engage in interprofessional learning. However, unlike Carpenter's (1995)

¹⁸ Team-teaching is usually interpreted as the teaching of a single group of students by tutors from different professional or academic backgrounds (Crow and Smith, 2003).

work, students who were positive about their own group also viewed other groups favourably, and the positive relationship between heterostereotypes and professional identity was not expected. The authors concluded this finding might have been due to the students perceiving themselves as belonging to a much larger group that incorporated all of the students included in the study. The students were in their first-year of study and were therefore unlikely to have had much contact between professional groups at this stage of their course. Therefore the degree and type of contact may have proved to be an important factor affecting attitudes held about each other.

Studies have also been conducted to look at the views of healthcare students towards interprofessional learning and teamwork (Horsburgh et al, 2001; Leipzig et al, 2001). Horsburgh et al (2001) looked at the attitudes of first-year medical, nursing and pharmacy students towards interprofessional learning. At course commencement, the majority of students reported positive attitudes towards interprofessional learning. The benefits of shared learning included the acquisition of team working skills which were seen to be beneficial to patient care and likely to enhance professional working relationships. However, professional groups differed: nursing and pharmacy students indicated more strongly that interprofessional learning would lead to more effective team working, whilst medical students were the least sure of their professional roles, and considered that they required the acquisition of more knowledge and skills than nursing or pharmacy students.

Leipzig et al (2002) also compared the attitudes of second year residents (physicians), advanced practice nurses and master level social workers towards working together on interdisciplinary healthcare teams. Trainees

from each of the professions agreed that interdisciplinary teamwork benefited patients and was a productive use of time. Although students from all three disciplines were positively inclined toward interdisciplinary teamwork, medical students were the least so. The authors concluded that exposure to interdisciplinary teamwork might need to occur at an earlier point in medical training than residency for physicians as certain attitudes had been formed by this point in training.

Several other studies have concluded that students form attitudes early on in their training. Henderson et al (2002) looked at medical students' attitudes towards general practice, in the context of undergraduate attitudes towards general practice. They concluded medical students ended their undergraduate years with a more positive attitude towards general practice, and postulated that this could be due to the greater contact with GPs they had received during their undergraduate training. They concluded that a more balanced, community-based curriculum promoted positive attitudes to general practice.

Likewise, Kritikos et al (2003) studied students' perceptions of ten occupations within the medical and allied professions. These included community pharmacists, dentists, dietitians, GPs, hospital pharmacists, medical specialists, nurses, occupational therapists, physiotherapists and social workers. Students perceived the health care professions along three major dimensions relating to empathy, potency and expertise. On the empathy dimension, students rated community pharmacists the highest and medical specialists the lowest. On a potency dimension, students rated medical specialists the most powerful, community and hospital pharmacists significantly lower, and dieticians as the lowest. Regarding expertise, students rated medical specialists the highest and dieticians as the lowest.

This again suggests that early on in their training healthcare students have started to form attitudes about each others role.

Greene et al (1996) has described a joint therapeutics teaching sessions with final year pharmacy and medical students. Interdisciplinary pairs of students were assigned a patient with common medical and therapeutic problems such as arthritis or diabetes to carry out a series of tasks such as obtaining clinical and drug histories. Almost all students who took part in this study found the sessions to be useful and there was considerable co-operation and little 'professional rivalry'. The authors suggested that small group problem-based teaching was most effective at encouraging interaction between students. They also stated that multi-disciplinary teaching, if frequent enough during training, could serve to break down unnecessary barriers between the professions when the students entered practice.

The pharmacist acting as a team teacher to medical students has been described in the literature (Henley & Wenzel- Warnhoff, 2000; Owen and Gibbs, 2001; Cheung et al, 2003). Owens and Gibbs (2001) argued that the pharmacist as an undergraduate educator was a professional colleague whose input at undergraduate level could help to overcome attitudinal barriers, and facilitate more effective interprofessional relationships in the future. The authors described a pilot study in which medical students explored the role of the community pharmacist by medical students arranging to visit the local pharmacy with predefined and discussed learning objectives. The evaluation demonstrated that this experience changed the medical students' perceptions and understanding of the role of the pharmacists. They felt encouraged to make more appropriate use of

the pharmacist in the future, whilst becoming aware of the undervalued feelings of the pharmacist.

Henley & Wenzel- Warnhoff (2000) have also evaluated a pilot study of medical students being taught under the direction of a clinical pharmacist. Medical students found pharmacists teaching about OTC medications useful, and although only 60% of the medical students felt the pharmacy trip was worthwhile, they showed significant improvement in their knowledge. Likewise, Cheung et al (2003) found that 75% of hospital doctors questioned indicated they would be happy to attend tutorials run by pharmacists to help increase their knowledge about medication therapy, and 50% of the doctors interviewed stated they would prefer a pharmacist to teach them about drug therapy.

The literature that has been described has mainly concerned interprofessional or team teaching of pharmacy and medical students at an undergraduate level. However, there is no reason to suggest that the principles described could not be applied to the postgraduate setting. I believe that by using either interprofessional training or team teaching in this project, this may have helped address some of the attitudinal barriers that existed between the two professionals. For example, joint training sessions may have allowed the pharmacists and GPs to utilise their clinical knowledge more beneficially surrounding a patient's care, and may have provided each profession with an insight into each others knowledge base. Likewise, the literature suggests the pharmacist acting as a team teacher had a positive impact on medical students learning. If GPs could have acted as either a team teacher to the community pharmacists, or acted as mentors (a role they currently have in supplementary prescribing for allied health professionals) to the community pharmacists this may have

encouraged a more positive relationship between the two professions. It should be noted that the GP qualitative data suggested that some GPs believed that community pharmacists would be able to undertake medication reviews if they received support and mentoring from their local GPs (refer to chapter 7). I believe if GPs had acted as team teachers or mentors then it would have encouraged relationships to build, and could have helped some community pharmacist's overcome their fear of communicating with GPs. As the GP was providing the teaching it may have allowed them to feel less threatened by the community pharmacist undertaking a medicines management role, because they would have had a greater understanding that community pharmacists were primarily wanting to undergo this role extension as an opportunity for greater job satisfaction, rather than as a chance to take roles away from GPs. If these attitudinal barriers could be resolved it could help address the issue about community pharmacists having access to patients' medical records.

10.2.3 Fostering relationships between professional organisations at national and international levels.

The third area that Reebye et al (2002) stated could help address collaborative relationships was through fostering relationships between pharmacists and physicians organisations at a national level. There are a number of examples that illustrate this strategy (Ruth et al, 1994; Liddell and Lloyd, 1994; Anon., 1997; Boivin and Brown, 1997).

In 1996 the Canadian Medical Association, along with the Canadian Pharmaceutical Association, produced a joint statement to promote optimal drug therapy by enhancing communication and working relationships among patients, physicians and pharmacists. This national agreement

stemmed from mandates by the provincial governments, as well as the college of physicians, and aimed to promote good co-operation on a local and national level between the physician and the pharmacist (Boivin and Brown, 1997).

In Denmark, the Danish Medical Association and the Danish Pharmaceutical Association signed an agreement on good pharmacy practice between physicians and pharmacists, to try and increase co-operation between pharmacist and physicians and ensure quality surrounding patient care (Anon, 1997).

As previously reported within the Netherlands, the joint meetings between pharmacists and physicians came about because of co-operation at national level involving governing bodies of pharmacists and GPs.

In Australia, The Royal Australian College of General Practitioners and the Pharmaceutical Society of Australia took the decision to release a joint statement on interprofessional communication as a national initiative (Ruth et al, 1994). The statement gave practical methods on how to enhance GP/pharmacist interaction. For example, GPs would use the prescription as the principal means of direct communication with the pharmacist using an enlarged range of abbreviations and conventions¹⁹ agreed between the two professions. GPs would also indicate the purpose for which the drug was prescribed as part of the directions, which helped the pharmacist provide the relevant information and counselling to the patient. Likewise, the joint statement stated that both professions should use verbal communication

¹⁹ For example, NT – New/Replacement Treatment. This would indicate to the community pharmacist that the patient would need to fully counsel the patient on the new medication. If it replaced another medicine, the prescription would indicate which medicine the new treatment replaced and the pharmacist would withdraw any unused repeat prescriptions for the superseded medications.

(either face-to-face or via telephone) to convey information to the other, particularly if it was of an urgent or confidential nature. Pharmacists would also use a written referral form (again, agreed by both professions), for communicating non-urgent information to the GP. The form was designed so that the GP could acknowledge referral when appropriate. It was hoped that this expanded and enhanced communication would lead to patients receiving more consistent and relevant information about their medications, and enhance relationships between community pharmacists and GPs (Liddell and Lloyd, 1994).

If the NHS is to enhance interprofessional collaboration this piece of research suggests that community pharmacists need to be more effectively integrated into the primary health care team. Tactics at both a strategic and local level need to be implemented to try and help foster relationship building between pharmacist and GPs.

10.3 Summary

This piece of research has highlighted a series of organisational and attitudinal barriers that need to be addressed in order to accomplish effective collaborative working between community pharmacists and GPs. Therefore, in order to develop and establish the provision of new services in the primary care setting, there is a need to nurture the development of close working relationships and address attitudinal barriers that may exist between community pharmacists and GPs. Tactics that may be used include, regular structured or informal meetings (prior to and during a collaborative venture), interprofessional or team learning, and fostering relationships at a national level. The aim of all these strategies is to allow

regular communication to occur, gain a greater understanding of each professions role and to develop trust between the two professions.

REFERENCES

- Abbott, A., 1988. *The system of professions. An essay on the division of expert labor*. Chicago: University of Chicago Press.
- Abbott, A. 1993. The Sociology of work and occupations. *Annual Review of Sociology*, 19, 187-209.
- Abookire, S., et al., 2001. Use and monitoring of 'statin' lipid-lowering drugs compared to guidelines. *Archives of Internal Medicine*, 161, 53-58.
- Adamcik, B., et al., 1986. New clinical roles for pharmacists: a study of role expansion. *Social Science and Medicine*, 23(11), 1187-1200.
- Allen, D., 1997. The nursing-medical boundary: a negotiated order? *Sociology of Health & Illness*, 19(4), 498-520.
- Allen, D., 2001. Review article: Nursing and sociology: an uneasy marriage? *Sociology of Health and Illness*, 23(3), 386-396.
- Ambler, S., 2003. General Practitioners and community pharmacists: times they are changing. *British Journal of General Practice*, 53(493), 594-595.
- Anderson, C., 1995. A controlled study of the effect of a health promotion training scheme on pharmacists' advice about smoking cessation. *Journal of Social and Administrative Pharmacy*, 12(3), 115-124.

Annandale, E., 1998. *The sociology of health and medicine: a critical introduction*. Cambridge : Polity Press.

Anon., 1997. Physicians and pharmacists. *International Pharmacy Journal*, 11(3), 70-71.

Anon., 1999a. £500,000 for pharmaceutical care pilots in Scotland. *Pharmaceutical Journal*, 263, 770.

Anon., 1999b. BMA has reservations about Crown report [online]. Chemist and Druggist Newsweekly. Dot Pharmacy June 26, 1999. Available at: <URL:<http://www.dotpharmacy.com/jun26.html> [Accessed 30 March 2006].

Anon., 2002a. Minister launches Barking's medicines management project for the elderly. *Pharmaceutical Journal*, 268, 197-203.

Anon., 2002b. Integrated medicines management breaks new ground in N. Ireland. *Medicines Management*, 3, 13-14.

Anon., 2004. Do newly qualified pharmacists fully participate in the clinical team? *Pharmaceutical Journal*, 272, 714.

Anon., 2005. Council agrees new guidance on supervision during consultations. *Pharmaceutical Journal*, 275, 755-756.

Antiplatelet Trialists Collaboration., 1994. Collaborative overview of randomised trials of antiplatelet therapy, prevention of death, myocardial

infarction and stroke by prolonged antiplatelet therapy in various categories of patients. *British Medical Journal*, 308, 81-106.

Antithrombotic Trialists Collaboration., 2002. Collaborative meta-analysis of randomised trials of antiplatelet therapy for prevention of death, myocardial infarction and stroke in high risk patients. *British Medical Journal*, 324, 71-86.

Barber, N., 2001. Pharmaceutical care and medicines management – is there a difference? *Pharmacy World & Science*, 23(6), 210-211.

Barry, CA., et al., 1999. Using reflexivity to optimize teamwork in qualitative research. *Qualitative Health Research*, 9(1), 26-44.

Bell, H.M., et al., 1998a. A qualitative investigation of the attitudes and opinions of community pharmacists to pharmaceutical care. *Journal of Social and Administrative Pharmacy*, 15(4), 284-295.

Bell, H.M., et al., 1998b. Provision of pharmaceutical care by community pharmacists in Northern Ireland. *American Journal of Health System Pharmacy*, 55, 2009-2012.

Bell, H.M., McElnay, J. C., Hughes, C.M., 2000. Societal perspectives on the role of the community pharmacist and community-based pharmaceutical services. *Journal of Social and Administrative Pharmacy*, 17(2), 199-128.

Bellingham, C., 2003. A new vision for pharmacy in the future. *Pharmaceutical Journal*, 271, 111-112.

Bellingham, C., 2004a. How medicines management is set to be improved in hospitals in England. *Pharmaceutical Journal*, 272, 409.

Bellingham, C., 2004b. How the minor ailments service works. *Pharmaceutical Journal*, 272, 115-116.

Birenbaum, A., 1982. Reprofessionalisation in pharmacy. *Social Science and Medicine*, 16, 871-878.

Bissell, P., and Anderson, C., 2003. Supplying emergency contraception via community pharmacies in the UK: reflections on the experiences of users and providers. *Social Science & Medicine*, 57, 2367-2378.

Bissell, P., Morgall Traulsen, J., and Haugbølle, L.S., 2002. The contribution of interactionist sociology to understanding the experience of health and illness. *International Journal of Pharmacy Practice*, 10, 213-214.

Bleiker, P., and Lewis, A., 1998. Extending the role of community pharmacists: the views of GPs. *International Journal of Pharmacy Practice*, 6, 140-144.

Blenkinsopp, A., and Bradley, C., 1996. Over the counter drugs: patients, society and the increase in self-medication. *British Medical Journal*, 312, 629-632.

Blenkinsopp, A., and Phelan, M., 1999. Extended adherence support by community pharmacists for patients with hypertension: A controlled trial. Department of Medicines Management. Keele University.

- Blickensderfer, L., 1996. Nurses and Physicians: creating a collaborative environment. *Journal of Intravenous Nursing*, 19(3), 127-131.
- Blue, I., and Fitzgerald, M., 2002. Interprofessional relations: case studies of working relationships between registered nurses and general practitioners in rural Australia. *Journal of Clinical Nursing*, 11, 314-321.
- Bogden, P.E., et al., 1997. The physician and pharmacist team: an effective approach to cholesterol reduction. *Journal of General Internal Medicine*, 12, 158-164.
- Bogden, P.E., et al., 1998. Comparing standard care with a physician and pharmacist approach for uncontrolled hypertension. *Journal of General Internal Medicine*, 13, 740-745.
- Boivin, M., and Brown, K., 1997. Physicians and pharmacists. *International Pharmacy Journal*, 11(3), 70.
- Bond, J., et al., 1987. Interprofessional collaboration in primary health care. *Journal of the Royal College of General Practitioners*, 37, 158-161.
- Bond, C., et al., 1999. Repeat prescribing: a role for community pharmacists in controlling and monitoring repeat prescribing. *British Journal of General Practice*, 49, 476-484.
- Borenstein, J.E., et al., 2003. Physician-pharmacist co-management of hypertension: a randomised, comparative trial. *Pharmacotherapy*, 23(2), 209-216.

Bowling, A., 2002. *Research methods in health: investigating health and health services*. 2nd ed. Buckingham: Open University Press.

Bradshaw, S.J., and Doucette, W.R., 1998. Community pharmacists as patients advocates: physician attitudes. *Journal of the American Pharmaceutical Association*, 38, 598-602.

Britten, N., 1995. Qualitative research: qualitative interviews in medical research. *British Medical Journal*, 311, 251-253.

Britten, N., 2001. Prescribing and the defence of clinical autonomy. *Sociology of Health & Illness*, 23, 478-496.

Brook, K.A., and Doucette, W.R., 2004. Collaborative working relationships between pharmacists and physicians: an exploratory study. *Journal of the American Pharmacists Association*, 44, 358-365.

Bryman, A., 2004. *Social Research Methods* 2nd Ed. Oxford: Oxford University Press.

Bryman, A., and Burgess, R.G., 1994. *Analyzing Qualitative Data*. London: Routledge.

Campbell, N.C., et al., 1998. Secondary prevention in coronary heart disease: baseline survey of provision in general practice. *British Medical Journal*, 316, 1430-1434.

Carpenter, J., 1995. Doctors and nurses: stereotypes and stereotype change in interprofessional education. *Journal of Interprofessional Care*, 9(2), 151-161.

Carter, B., et al., 1997. Evaluation of hypertensive patients after care provided by community pharmacists in a rural setting. *Pharmacotherapy*, 17(6), 1274-1285.

Chapple, A., and Rogers, A., 1998. Explicit guidelines for qualitative research: a step in the right direction, a defence of the 'soft' option, or a form of sociological imperialism? *Family Practice*, 15, 556-561.

Charles – Jones, H., Latimer, J., and May, C., 2003. Transforming general practice: the redistribution of medical work in primary care. *Sociology of Health and Illness*, 25(1), 71-92.

Chen, T.F., et al., 1999a. Collaboration between community pharmacists and GPs in innovative clinical services – a conceptual model. *Journal of Social and Administrative Pharmacy*, 16(3/4), 134-144.

Chen, T.F., et al., 1999b. Collaboration between community pharmacists and GPs – the medication review process. *Journal of Social and Administrative Pharmacy*, 16(3/4), 145-156.

Chen, T.F., 2001a. *Interprofessional Collaboration between community pharmacists and general practitioners in medication regimen review*. Ph.D. thesis, University of Sydney.

Chen, T.F., et al., 2001b. Collaboration between community pharmacists and GPs – impact on interprofessional communication. *Journal of Social and Administrative Pharmacy*, 18(3), 83-90.

Cheung, S., Cheung, C., and Persaud, J., 2003. A survey of junior doctors' attitudes towards pharmacists and how their interaction can be improved. *Pharmaceutical Journal*, 270, 163-164.

Chew-Graham, C.A., May, C.R., and Perry, M.S., 2002. Qualitative research and the problem of judgement: lessons from interviewing fellow professionals. *Family Practice*, 19(3), 285-289.

Chilsholm, M.A., et al., 2002. Effect of pharmacy services on the blood pressure of African-American renal transplant patients. *Ethnicity and Disease*, 12, 392-397.

Clifford, R.M., et al., 2002. A randomised controlled trial of a pharmaceutical care programme in high-risk diabetic patients in an outpatient clinic. *International Journal of Pharmacy Practice*, 10, 85-89.

Conneeley, A.L., 2002. Methodological issues in qualitative research for the researcher/practitioner. *British Journal of Occupational Therapy*, 65(4), 185-190.

Cotter, S.M., Barber, N.D., and McKee, M., 1994. Professionalisation of hospital pharmacy: The role of clinical pharmacy. *Journal of Social and Administrative Pharmacy*, 11, 57-67.

Cowen, D.L., 1992. Changing relationships between pharmacists and physicians. *American Journal of Hospital Pharmacy*, 49, 2715-2721.

Crow, J., and Smith, L., 2003. Using co-teaching as a means of facilitating interprofessional collaboration in health and social care. *Journal of Interprofessional Care*, 17(1), 45-55.

Day, M., 2005. UK doctors protest at extension to nurses' prescribing powers. *British Medical Journal*, 331, 1159-1160.

Deeks, J., Glazier, R.H., and Sheldon, T., 1996. Undertaking systematic review on effectiveness: CRD guidelines for those carrying out or commissioning reviews. Centre for Review and Dissemination

Denzin, N., and Mettlin, C., 1968. Incomplete professionalization: The case of pharmacy. *Social Forces*, 46(3), 375-381.

Departments of General Practice and Primary Care and Management, University of Aberdeen, 2003. *Change and evolution in community pharmacy*. Report for the Community Pharmacy Research Consortium. London: Royal Pharmaceutical Society of Great Britain.

Department of Health, 1997. *The New NHS- Modern Dependable*. London: Department of Health.

Department of Health, 1998. *Review of prescribing, supply and administration of medicines. A report on the supply and administration of medicines under group protocols*. London: Department of Health.

Department of Health, 1999a. *Our Healthier Nation*. London: Department of Health.

Department of Health, 1999b. *Review of prescribing, supply and administration of medicines*. Final report. London: Department of Health.

Department of Health, 2000a. *The NHS Plan: a Plan for Investment*. London: Department of Health.

Department of Health. 2000b. *Pharmacy in the future – implementing the NHS Plan*. London: Department of Health.

Department of Health. 2000c. *National Service Framework for Coronary Heart Disease*. London: Department of Health.

Department of Health, 2001. *National Collaborative Medicines Management Services Programme*. London: Department of Health.

Department of Health, 2003a. *A vision for pharmacy in the new NHS*. London: Department of Health.

Department of Health, 2003b. *Investing in general practice: the new general medical services contract*. London: Department of Health.

Department of Health, 2005a. *Choosing health through pharmacy*. London: Department of Health.

Department of Health, 2005b. Nurse and pharmacists prescribing powers extended [press release 10 Nov 2005]

www.dh.gov.uk/PublicationsAndStatistics/PressReleases/PressReleasesNotes/fs/en?CONTENT_ID=4122999 [Assessed 30 March 2006].

Dingwall, R., and Wilson, E., 1995. Is pharmacy really an incomplete profession? *Perspectives on Social Problems*, 7, 111-128.

Donaldson, A.R., and Andrus, M.R., 2004. Pharmacist-run lipid management programme in rural Alabama. *American Journal of Health-System Pharmacy*, 61, 493-497.

Doucette, W.R., and Jambulingham, T., 1999. Pharmacy entrepreneurial orientation: its antecedents and its effect on provision of innovative pharmacy services. *Journal of Social and Administrative Pharmacy*, 16(1), 26-37.

Downs, J., et al., 1998. Primary prevention of acute coronary events with lorastatin in men and women with average cholesterol levels: results of AFCAPS/TexCAPS. Air Force/TEXAS Coronary Atherosclerosis Prevention Study. *The Journal of the American Medical Association*, 97, 2202-2212.

Eaton, G., and Webb, B., 1979. Boundary encroachment: Pharmacists in the clinical setting. *Sociology of Health & Illness*, 1(1), 69-89.

Edmunds, J., and Calnan, M., 2001. The reprofessionalisation of community pharmacy? An exploration of attitudes to extended roles for community pharmacists amongst pharmacists and General Practitioners in the United Kingdom. *Social Science and Medicine*, 53, 943-955.

Ellis, B.C., et al., 1992. General Practitioners' views on the role of the community pharmacist. *New Zealand Medical Journal*, 105, 403-405.

Elston, M.A., 1991. The politics of professional power: medicine in a changing health service. In: Gabe, J., Calnan, M., Bury, M., ed. *The sociology of the health service*. London: Routledge, 1991 p58-88.

Erwin J, Britten N and Jones R. General practitioners' views on over the counter sales by community pharmacists. *British Medical Journal* 1996; 312: 617-618

Ewen, E.F., and Triska, O., 2001. What is the pharmacist's role in the community? *Canadian Pharmaceutical Journal*, 134, 33-9.

Fonarow, G., 2002. Statin therapy after myocardial infarction: are we adequately treating high-risk patients? *Current Atherosclerosis Reports*, 4, 99-106.

Friedson, E., 1970. *Professional Dominance: The Social Structure of Medical Care*. New York: Atherton Press.

Friedson, E., 1985. The reorganisation of the medical profession. *Medical Care Review*, 42(1), 11-35.

Garcao, J.A., and Cabrita, J., 2002. Evaluation of a pharmaceutical care programme for hypertensive patients in rural Portugal. *Journal of the American Pharmaceutical Association*, 42, 858-864.

Gardner, S., et al., 1995. Community pharmacy databases to identify patients at high risk for hypocholesterolaemia. *Pharmacotherapy*, 15, 292-296.

Gattis, W.A., et al., 1999. Reduction in heart failure events by the addition of a clinical pharmacist to the heart failure team. *Archives of Internal Medicine*, 159, 1939-1945.

Gilbert, L., 1997. Pharmacist and nurse: a team approach towards primary health care or a convenient 'therapeutic' alliance? *International Journal of Nursing Studies*, 34(5), 367-374.

Gilbert, L., 1998a. Pharmacy's attempts to extend its role: A case study in South Africa. *Soc. Science and Medicine*, 47, 153-164.

Gilbert, L., 1998b. Community pharmacy in South Africa: A changing profession in a society in transition. *Health and Place*, 4(3), 273-285.

Gilbert, L., 1998c. Dispensing doctors and prescribing pharmacists: A South African Perspective. *Soc. Science and Medicine*, 46(1) 83-95.

Gilbert, L., 2001. To diagnose, prescribe and dispense: Whose right is it? The ongoing struggle between pharmacy and medicine in South Africa. *Current Sociology*, 49(3), 97-118.

Glaser, B., and Strauss, A., 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine.

- Goldstein, S., 1996. Beta-blockers in hypertension and coronary heart disease. *Archives of Internal Medicine*, 156, 1267-1276.
- Gosselin, R.A., and Robbins, J., 1999. *Inside pharmacy – an anatomy of a profession*. Techamic Publising Co.Inc: USA.
- Gourley, G.A., et al., 1998. Part 3. Humanistic outcomes in the hypertension and COPD arms of a multicentre outcomes study. *Journal of the American Pharmaceutical Association*, 38(5), 586-597.
- Grbich, C., 1999. *Qualitative Research in Health*. London: Sage Publications. pp.101-102.
- Green, J., and Britten, N., 1998. Qualitative research and evidence based medicine. *British Medical Journal*, 316, 1230-1232.
- Greene, R.J., Cavell, G.F., and Jackson, S.H.D., 1996. Interprofessional clinical education of medical and pharmacy students. *Medical Education* 30, 129-133.
- Ham, C., 2004. *Health policy in Britain: the politics and organisation of the National Health Service*. 5th Ed. Basingstoke: Palgrave Macmillian.
- Hamberg, K., and Johansson, E., 1999. Practitioner, Researcher, and Gender Conflict in a Qualitative Study. *Qualitative Health Research*, 9(4), 455-467.
- Harding, G., and Gantley, M., 1998. Qualitative methods: beyond the cookbook. *Family Practice*, 15(1), 76-79.

Harding, G., and Taylor, K., 1997. Responding to change: the case of community pharmacy in Great Britain. *Sociology of Health & Illness*, 19(5), 547-560.

Harding, G., and Taylor, K., 2002. Power, Status and Pharmacy. *Pharmaceutical Journal*, 269, 440-442.

Headrick, L., Wilcock, M., and Batalden, P., 1998. Interprofessional working and continuing medical education. *British Medical Journal*, 316, 771-774.

Henderson, E., Berlin, A., and Fuller J., 2002. Attitude of medical students towards general practice and general practitioners. *British Journal of General Practice*, 52, 359-363.

Henley, E., and Wenzel-Wamhoff, J., 2000. Teaching medical students about over-the-counter medications. *Medical Education*, 34(7), 580-582.

Hepler, C.D., 1985. Pharmacy as a clinical profession. *American Journal of Hospital Pharmacy*, 42, 1298-1306.

Helpler, C.D., 1987. The third wave in pharmaceutical education: the clinical movement. *American Journal Pharmaceutical Education*, 51, 369-385.

Hepler, C.D., and Strand, L.M., 1990. Opportunities and responsibilities in pharmaceutical care. *American Journal of Hospital Pharmacy*, 47, 533-543.

Hibbert, D., Bissell, P., and Ward, P.R., 2002. Consumerism and professional work in the community pharmacy. *Sociology of Health and Illness*, 24, 46-65.

Higby, G.J., 1997. American pharmacy in the twentieth century. *American Journal of Health-System Pharmacy*. 54: 1805-1815.

Hind, M., et al., 2003. Interprofessional perceptions of health care students. *Journal of Interprofessional Care*, 17(1), 21-34.

Hoddinott, P., and Pill, R., 1997a. A review of recently published qualitative research in general practice. More methodological questions than answers? *Family Practice*, 14, 313-320.

Hoddinott, P., and Pill, R., 1997b. Qualitative research interviewing by general practitioners. A personal view of the opportunities and pitfalls. *Family Practice*, 14(4), 307-312.

Holland, R.W., and Nimmo C.M., 1999a. Transitions, part 1: Beyond pharmaceutical care. *American Journal of Health-System Pharmacy*, 56, 1758-1764.

Holland, R.W., and Nimmo, C.M., 1999b. Transitions in pharmacy practice, part 3: Effecting change – the three-ring circus. *American Journal of Health-System Pharmacy*, 56, 2235-2241.

Horsburgh, M., Lamdin, R., and Williamson, E., 2001. Multiprofessional learning: the attitudes of medical, nursing and pharmacy students to shared learning. *Medical Education*, 35, 876-883.

Howard, M., et al., 2003. Collaboration between community pharmacists and family physicians: lessons learned from the Seniors Medication Assessment Research Trial. *Journal of the American Pharmaceutical Association*, 43(5), 566-572.

Hughes, C., and McGann, S., 2003. Perceived interprofessional barriers between community pharmacists and general practitioners: a qualitative assessment. *British Journal of General Practice*, 53, 600-606.

ISIS-2 (Second International Study of Infarct Survival) Collaborative Group., 1988. Randomised trial of intravenous streptokinase, oral aspirin, both, or neither among 17,187 cases of suspected acute myocardial infarction: ISIS-2. *Lancet*, 2, 349-360.

Iversen, L., Mollison, J., and MacLeod, T.N.N., 2001. Attitudes of the general public to the expanding role of community pharmacists: a pilot study. *Family Practice*, 18, 534-536.

Jenkins, D. and Ghalamkari, H., 2001. A pragmatic way forward. *Pharmaceutical Journal*, 266, 281-284.

Joint Working Party, 1992. Pharmaceutical care: the future for community pharmacy. London: RPSGB on behalf of the Department of Health and the pharmaceutical profession.

Käppeli, S., 1995. Interprofessional cooperation: why is partnership so difficult? *Patient Education and Counseling*, 26, 251-256.

Kitzinger, J., 1995. Qualitative research: introducing focus groups. *British Medical Journal*, 311, 299-302.

Kmietowicz, Z., 2005. Medical professionalism is under threat say eight in 10 aspiring British doctors. *British Medical Journal*, 331, 1292-1293

Knapp, D.A., and Knapp, D.E., 1968. An appraisal of the contemporary practice of pharmacy. *American Journal of Pharmaceutical Education*, 32, 748-758.

Konzem, S., Gray, D., and Kashyap, M., 1995. Effect of pharmaceutical care on optimum colestipol treatment in elderly hypercholesterolaemia. *Pharmacotherapy*, 15(3), 292-296.

Kritikos, V., et al., 2003. Pharmacy students' perceptions of their profession relative to other health care professions. *International Journal of Pharmacy Practice*, 11, 121-129.

Lambert, B.L., 1996. Face and politeness in pharmacist-physician interaction. *Social Science and Medicine*, 43(8), 1189-1198.

Leipzig, R.M., et al., 2002. Attitudes toward working on interdisciplinary healthcare teams: a comparison by discipline. *Journal of the American Geriatrics Society*, 50, 1141-1148.

Liddell, M., and Lloyd, A., 1994. Improving GP-pharmacist communication for enhanced patient care. *Australian Family Physician*, 23(8), 1405-1407.

Long Term Intervention with Pravastatin in Ischaemic Disease (LIPID) Study Group., 1998. Prevention of cardiovascular events and death with pravastatin in patients with coronary heart disease and a broad range of initial cholesterol levels. *New England Journal of Medicine*, 339, 1349-1357.

Lupton, D., 1997. Doctors on the medical profession. *Sociology of Health & Illness*, 19, 480-497.

Macgregor, S., et al., 1996. Evaluation of a primary care anticoagulant clinic managed by a pharmacist. *British Medical Journal*, 312, 560.

MacRae, F., et al., 2003. Pharmacist-led medication review clinics in general practice: the views of Greater Glasgow GPs. *International Journal of Pharmacy Practice*, 11, 199-208.

Maguire, T.A., McElnay, J.C., and Drummond, A., 2001. A randomised controlled trial of a smoking cessation intervention based in community pharmacies. *Addiction*, 96, 325-331.

Mason, J., 2002. *Qualitative Researching 2nd Ed.* London: Sage Publications, London.

Mays, N., and Pope, C., 1995. Qualitative Research: Rigour and Qualitative Research. *British Medical Journal*, 311, 109-112.

Mays, N., and Pope, C., 2000. Assessing quality in qualitative research. *British Medical Journal*, 320, 50-52.

McAlistair, F., et al., 2001. Randomised trials of secondary prevention programmes in coronary heart disease: systematic review. *British Medical Journal*, 323, 957-962.

McCallum, A.K., Whincup, P.H., Morris, R.W., et al., 1997. Aspirin use in middle-aged men with cardiovascular disease: are opportunities being missed. *British Journal of General Practice*, 47, 417-421.

McDonough, R.P. and Doucette, W.R., 2001. A conceptual framework for collaborative working relationships between pharmacists and physicians. *Journal of the American Pharmacists Association*, 41, 682-692.

McGlynn S., et al., 2000. Coronary Heart Disease. *Pharmaceutical Journal*, 256, 194-205.

McGovern, E.M., et al., 2001. Pharmaceutical care needs of patients with angina. *Pharmacy World and Science*, 23(5), 175-176.

Mesler, M., 1991. Boundary encroachment and task delegation: clinical pharmacists on the medical team. *Sociology of Health & Illness*, 13(3), 310-331.

Mikael R.L., et al., 1975. Quality in pharmaceutical care in hospitals. *American Journal of Hospital Pharmacy*, 32, 567-574.

Miller, M.J., and Orteimer, B.G., 1995. Factors influencing the delivery of pharmaceutical services. *American Pharmacy*, NS35(1), 39-45.

Morgan, D., 1998. *Planning Focus Groups*. London: Sage Publications.

Morrison, D., et al., 2001. Managing your medicines-a pharmacy service in Northern Ireland. *Pharmaceutical Journal*, 267, 556-557.

Morrow, S., 2002. Setting up a scheme for older people. *Medicines Management*, 1, 12-13.

Mrtek, R.G. and Catizone, C., 1989. *Pharmacy practice, social and behavioural aspects*. London: Williams and Wilkins p.23-41

Muijrs, P.E.M., et al., 2003. Changing Relationships: Attitudes and Opinions of General Practitioners and Pharmacists Regarding the Role of the Community Pharmacist. *Pharmacy World and Science*, 25(5), 235-241.

Naccarella, L. and Sims, J., 2003. How do general practitioners work together with other health care providers: policy, reality and research perspectives within the Australian context? *Journal of Interprofessional Care*, 17(3), 303-304.

National Prescribing Centre, 2000. Assessing cardiovascular risk (part 1). *MeRec Bulletin*, 11(7), 25-28.

National Prescribing Centre. 2002. Medicines management services – why are they so important? *MeReC Bulletin*, 12(6), 21-23.

Nettleton, S. 1995. *The Sociology of Health and Illness*. Cambridge: Polity Press.

NHS Modernisation Agency, 2005. *Medicines Matters: A guide to current mechanisms for the prescribing, supply and administration of medicines.* London: Department of Health.

Nimmo, C.M., and Holland, R.W., 1999a. Transitions in pharmacy practice, part 2: Who does what and why. *American Journal of Health-System Pharmacy*, 56, 1981-1987.

Nimmo, C.M., and Holland, R.W., 1999b. Transitions in pharmacy practice, part 4: Can a leopard change its spots? *American Journal of Health-System Pharmacy*, 56, 2458-2462.

Nimmo, C.M., and Holland, R.W., 2000. Transitions in pharmacy, part 5: Walking the tightrope of change. *American Journal of Health-System Pharmacy*, 57, 64-72.

Nuffield Foundation, 1986. *Pharmacy. The report of a committee of inquiry appointed by the Nuffield Foundation.* London: The Nuffield Foundation.

O'Brien, K., and Gray, N., 2000. Supplying emergency hormonal contraception in Manchester under a group prescribing protocol. *Pharmaceutical Journal*, 264, 518-519.

Olsson, G., et al., 1988. Prognosis after withdrawal of chronic post infarction metoprolol treatment: a 2-7 year follow-up. *European Heart Journal*, 9, 365-372.

O'Neil C., et al., 1996. Cost effectiveness of personal health education in primary care for people with angina in the Greater Belfast area of Northern Ireland. *Journal of Epidemiology and Community Health*, 50, 538-540.

Owens, P., and Gibbs, T., 2001. More than just a shopkeeper: involving the community pharmacist in undergraduate medical education. *Medical Teacher*, 23, 305-309.

Parsell, G. and Bligh, J., 1999. The development of a questionnaire to assess the readiness of health care students for interprofessional learning. *Medical Education*, 33, 95-100.

Parsons, T., 1954. The professions and social structure. In: T Parsons, ed. *Essays in sociological theory*, Glencoe, Illinois: Free Press, 1954.

Park, J.J., et al., 1996. Comprehensive pharmaceutical care in the chain setting. *Journal of the American Pharmaceutical Association*, NS36(7), 443-451.

Paulos, C.P., 2005. Impact of a pharmaceutical care programme in a community pharmacy on patients with dyslipidemia. *The Annals of Pharmacotherapy*, 39, 939-43.

Peterson S, Peto V and Rayner M., 2004. *Coronary heart disease statistics*. 12th Ed. London: British Heart Foundation.

Pharmaceutical Services Negotiating Committee, 2004. The new contract for community pharmacy. Pharmaceutical Services Negotiating Committee. Available from: www.psn.org.uk [accessed 30 March 2006].

Pope, C., and Mays, N., 1995. Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *British Medical Journal*, 311: 42-45.

Pope, C., Ziebland, S., and Mays, N., 2000. Analysing qualitative data. *British Medical Journal*, 320, 114-116.

Reebye, R., et al., 1999. Exploring community pharmacists' perceptions of their professional relationship with physicians, in Canada and the Netherlands. *International Journal of Pharmacy Practice*, 7, 149-158.

Reebye, R., et al., 2002. The issue of territoriality between pharmacists and physicians in primary care. *International Journal of Pharmacy Practice*, 10, 69-75.

Reilly, V., and Cavanagh, M., 2003. The clinical and economic impact of a secondary heart disease prevention clinic jointly implemented by a practice nurse and pharmacist. *Pharmacy World and Science*, 25(6), 294-298.

Richards, H., and Emslie, C., 1999. The 'doctor' or the 'girl' from the University? Considering the influence of professional roles on qualitative interviewing. *Family Practice*, 17(1), 71-75.

Ritchey, F.J. and Raney, M.R. 1981. Medical role-task boundary maintenance: Physicians' opinions of clinical pharmacy. *Medical Care*, 19, 90-103.

Ritchey, F.J., and Sommers, D.G., 1990. Medical rationalization and professional boundary maintenance: physicians and clinical pharmacists. *Research in the Sociology of Health Care*, 10, 117-139.

Rossing, C., Holme Hansen, E., and Krass, I., 2001. Barriers and facilitators in pharmaceutical care: perceptions and experiences among Danish community pharmacists. *Journal of Social and Administrative Pharmacy*, 19(2), 55-64.

Royal Pharmaceutical Society of Great Britain, 1996. *Pharmacy in a new age: developing a strategy for the future of pharmacy*. London: RPSGB.

Royal Pharmaceutical Society of Great Britain, 1997a. *Building the future: a strategy for a 21st century pharmaceutical service*. London: RPSGB.

Royal Pharmaceutical Society of Great Britain, 1997b. *From compliance to concordance: achieving shared goals in medicine taking*. London: RPSGB.

Royal Pharmaceutical Society of Great Britain, 1998. *Over to you: helping pharmacists shape their professional future*. London: RPSGB.

Royal Pharmaceutical Society of Great Britain, 2004. *Pharmacy involvement in medicines management across Wales*. London: RPSGB.

Royal Pharmaceutical Society of Great Britain, 2005. *Medicines, Ethics and Practice – A guide for pharmacists*. 29th Ed. Pharmaceutical Press. p. 85-87.

Rushton, A., 2001. Achieving Re-professionalisation: factors that influence the adoption of an 'extended role' by community pharmacists. A national survey. *Journal of Social & Administration Pharmacy*, 18(3), 103-110.

Ruth, D., et al., 1994. General Practitioners and pharmacists interprofessional communication. *Australian Family Physician*, 23(8), 1544-1546.

Rutter, P.R., Hunt, A.J., Jones, I.F., 2000. Exploring the gap: community pharmacists' perceptions of their current role compared with their aspirations. *International Journal of Pharmacy Practice*, 8, 204-208.

Ryan – Woolley, B.M., and Cantrill, J.A., 2000. Professional perspectives on a feasibility study of GP-pharmacist collaboration in the management of angina. *International Journal of Pharmacy Practice*, 8, 275-284.

Sacks, F.M., et al., 1996. The effect of pravastatin on coronary events after myocardial infarction in patients with average cholesterol levels. *New England Journal of Medicine*, 335, 1001-1009.

Salvage, J., 1995. What's happening to nursing? *British Medical Journal*, 311, 274-275.

Sanmuganathan, P.S., et al., 2001. Aspirin for primary prevention of coronary heart disease: safety and absolute benefit related to coronary risk derived from meta-analysis of randomised trials. *Heart*, 85, 265-271.

Scandinavian Simvastatin Survival Study Group., 1994. Randomised trial of cholesterol lowering in 4,444 patients with coronary heart disease: the Scandinavian Simvastatin Survival Study (4S). *Lancet*, 344, 1383-1389.

Seale, C., 1999. *The Quality of Qualitative Research*. London: Sage.

Sellors, J., et al., 2003. A randomised controlled trial of a pharmacist consultation programme for family physicians and their elderly patients. *Canadian Medical Association Journal*, 169(1), 17-22.

Shaffer, J., and Wexler, L., 1995. Reducing low-density lipoprotein cholesterol levels in an ambulatory care system: results of a multidisciplinary collaborative lipid clinic compared with traditional physician-based care. *Archives of Internal Medicine*, 155(21), 2330-2335.

Shepherd, J., et al., 1995. Prevention of coronary heart disease with pravastatin in men with hypercholesterolemia: West of Scotland Coronary Prevention Study Group. *New England Journal of Medicine*, 333, 1301-1307.

Silcock, J., Raynor, D.K., and Petty, D., 2004. The organization and development of primary care pharmacy in the United Kingdom. *Health Policy*, 67, 207-214.

Silverman, D., 2000. *Doing Qualitative Research – A Practical Handbook*. London: Sage Publications.

Silverman, D., 2001. *Interpreting Qualitative Data*. 2nd Ed. London: Sage Publications.

Simpson, D., 1997. Pharmaceutical care; the Minnesota model. *Pharmaceutical Journal*, 258, 899-904.

Simpson, D., 2001. What is medicines management and what is pharmaceutical care? *Pharmaceutical Journal*, 266, 150-153.

Sinclair, H., et al., 1998. Training pharmacists and pharmacy assistants in the stage-of-change model of smoking cessation: a randomized controlled trial in Scotland. *Tobacco Control*, 7, 253-261.

Sinclair, H., Bond, C., and Scott Lennox, A., 1999. The long-term learning effect of training in stage of change for smoking cessation: a three-year follow-up of community pharmacy staff's knowledge and attitudes. *International Journal of Pharmacy Practice*, 7, 1-11.

Smith, F., 1998. Qualitative Interviews. *International Journal of Pharmacy Practice*, 6, 97-108.

Smith, F., 1999. Analysis of data from focus groups: Group interaction-the added dimension. *International Journal of Pharmacy Practice*, 7, 192-196.

Smith, S., 2000. Clinical treatment of dyslipidemia: Practice patterns and missed opportunities. *American Journal of Cardiology*, 86 (suppl), 62L-65L.

Smith, W.E., Ray, M.D., and Shannon, D.M., 2002. Physicians' expectations of pharmacists. *American Journal of Health-System Pharmacy*, 59, 50-57.

Snelgrove, S., and Hughes, D., 2000. Interprofessional relations between doctors and nurses: perspectives from South Wales. *Journal of Advanced Nursing*, 31(3), 661-667.

Spencer, J., and Edwards, C., 1992. Pharmacy beyond the dispensary: general practitioners' views. *British Medical Journal*, 304, 1670-1672.

Stein, L.I., 1967. The doctor-nurse game. *Archives of General Psychiatry*, 16, 699-703.

Stevens, M., and Williams, H., 2002. Secondary prevention of heart disease. *Pharmaceutical Journal*, 269, 784-786.

Straka, R.J., et al., 2005. Achieving cholesterol target in a managed care organization (ACTION) trial. *Pharmacotherapy*, 25(3), 360-371.

Strauss, A., and Corbin, J., 1998. *Basics of qualitative research: techniques and procedures for developing Grounded Theory*. 2nd Ed. London: Sage.

Svensson, R., 1996. The interplay between doctors and nurses – a negotiated order perspective. *Sociology of Health and Illness*, 18, 379-398.

Tan, J., et al., 1996. Leading edge practitioners in community pharmacy: approaches to innovation. *International Journal of Pharmacy Practice*, 4, 235-245.

Tan, J., and Blenkinsopp, A., 2003. Understanding innovation in community pharmacy – a final report. London: Royal Pharmaceutical Society of Great Britain

Taylor., K., Nettleton, S., and Harding, G., 2003. *Sociology for pharmacists: an introduction*. 2nd Ed. London: Taylor and Francis.

The Community Pharmacy Medicines Management Project Evaluation Team
2004. The Community Pharmacy Medicines Management Project Final
Report for Pharmaceutical Services Negotiating Committee. Available at:
<http://www.medicinesmanagement.org.uk/summary.php>. [Accessed 30
March 2006].

Traulsen, J.M., and Bissell, P., 2004. Theories of professions and the
pharmacist. *International Journal of Pharmacy Practice*, 12, 107-114.

Trinca, C.E., 1995. The pharmacists' progress towards implementing
pharmaceutical care. *American Pharmacy*, NS35(8), 13-18.

Tunstall – Pedoe, H., et al., 1999. Contributions of trends in survival and
coronary event rates to changes in coronary heart disease mortality: 10
year results from 37 WHO MONICA project populations. *Lancet*, 353, 1547-
1557.

Tsuyuki, R.T., et al., 2002. A randomised trial of the effect of community
pharmacist intervention on cholesterol risk management: The study of
cardiovascular risk intervention by pharmacists (SCRIP). *Archives of
Internal Medicine*, 162(10), 1149-1155.

Van Mil, J.W.F., et al., 1999. The challenges of defining pharmaceutical
care on an international level. *International Journal of Pharmacy Practice*,
7, 202-208.

Van Mil, J.W.F., De Boer, W.O., and Tromp, Th.F.J., 2001. European barriers to the implementation of pharmaceutical care. *International Journal of Pharmacy Practice*, 9(3), 163-168.

Varnish, J., 1998. Drug pushers or health care professionals: the public's perception of pharmacy as a profession. *International Journal of Pharmacy Practice*, 6, 13-21.

Viskin, S., et al., 1995. Treatment with beta-adrenergic blocking agents after myocardial infarction: from randomised trials to clinical practice. *Journal of the American College of Cardiology*, 25, 1327-1332.

Watson, M., et al., 1999. Community pharmacists and medicine management for patients with coronary heart disease: A comprehensive literature review. Department of General Practice and Primary Care, University of Aberdeen.

Weinberger, M., et al., 2002. Effectiveness of pharmacist care for patients with reactive airways disease – a randomised controlled trial. *The Journal of the American Medical Association*, 288(13), 1594-1602.

Weiss, M. and Fitzpatrick, R., 1997. Challenges to medicine: the case of prescribing. *Sociology of Health and Illness*, 19, 297-327.

Welton, M., Croft, P., and Welton, J., 1999. General practitioners' use of aspirin in the secondary prevention of vascular events: knowledge, attitudes, and current practice. *British Journal of General Practice*, 49, 607-610.

White, M., 1999. Prevention of suboptimal beta-blocker treatment in patients with myocardial infarction. *The Annals of Pharmacotherapy*, 33, 1063-72.

Wiles, R., 1994. Teamwork in primary care: the views and experiences of nurses, midwives and health visitors. *Journal of Advanced Nursing*, 20, 324-330.

Williams, S.J., and Calnan, M. 1996. The 'limits' of medicalization? Modern medicine and the lay populace in 'late' modernity. *Social Science and Medicine*, 42, 1609-1620.

Williams, H., McRobbie, D., and Davies, R., 2003. Primary prevention of heart disease. *Pharmaceutical Journal*, 270, 86-88.

Willis, E., Condon, J., and Litt, J., 2000. Working relationships between practice nurses and general practitioners in Australia: a critical analysis. *Nursing Inquiry*, 7, 239-247.

Wilson, K.A., et al., 2002. The Birmingham community pharmacy repeat dispensing project. *Pharmaceutical Journal*, 269, 20-24.

Yamada, C., et al., 2005. Long-term impact of a community pharmacist intervention on cholesterol levels in patients at high risk for cardiovascular events: extended follow-up of the second study of cardiovascular risk intervention by pharmacists (SCRIP-plus). *Pharmacotherapy*, 25(1), 110-115.

Zermansky, A.G., et al., 2001. Randomised controlled trial of clinical medication review by a pharmacist of elderly patients receiving repeat prescriptions in general practice. *British Medical Journal*, 323, 1340-1343.

Zillich, A.J., et al., 2004. Influential characteristics of physician/pharmacist collaborative relationships. *The Annals of Pharmacotherapy*, 38, 764-770.

Zillich, A.J., et al., 2005. Development and initial validation of an instrument to measure physician-pharmacist collaboration from the physician perspective. *Value in Health*, 8(1), 59-66.

Appendix 1

The Community Pharmacy Medicines Management Team

University of Aberdeen: Christine Bond (Principal Investigator), Philip Hannaford, Mariesha Jaffray, Amanda J Lee, Gladys McPherson, Anthony Scott, Michela Tinelli, Margaret Watson, Elizabeth Dinnie, Elizabeth Shirran

University of Keele: Alison Blenkinsopp, Steve Chapman, Helen Hooper, Duncan Short

University of Nottingham: Claire Anderson, Anthony Avery, Paul Bissell, Stacey Sadler

College of Pharmacy Practice: Janet Krska

Appendix 2

Community Pharmacist Semi-Structured Interview Questions (Pilot Data Collection)

1. Why did you decide to participate in this project?

Establish motivation to participate - changes in practice, financial, who
e.g. PDGs/PCT, owner of pharmacy?

2. Before you were approached to participate in this project, did you have any prior knowledge of medicines management?

3. How would you define medicines management?

4. What do you see as the effects of medicine management?

5. How do you see this project working in practice?

Has it worked?

If there are problems, what are they and how have they occurred?

What have been the benefits?

6. Do you feel that in the future this is a realistic role for pharmacists to carry out?

Why?

7. If this role does continue, do you see this having an effect on any other areas of your role?

Do you perceive these changes to be beneficial or detrimental?

8. Have you ever participated in any other community pharmacist research projects before?

If yes, how do you feel past experience will help you undertake this project?

9. How do you feel about pharmacists taking a more active role in patient care?

Do you think this will create more job satisfaction for you?

If yes/no – why?

Do you think this will create more job satisfaction for pharmacists generally? If yes/no – why?

10. Do you think pharmacists have the necessary knowledge and expertise to undertake this expanding role?

11. Did you feel you had a good knowledge of coronary heart disease and the NSF for CHD, prior to training received for the medicines management project?

What information sources do you use?

Do you keep up date with current guidelines/recommendations?

12. Did you feel you received adequate training from this project to enable you to carry out your duties?

13. What was the training like?

Were there areas that were covered in too much/too little detail?

How could it be improved?

14. How did the patient consultations go?

Good points/problems?

15. What is your working relationship like with the doctors in your area?

Has the relationship improved/worsened since commencing the project?

16. How do you feel about potentially challenging a doctor's decision?

Do you feel you have the necessary skills and experience to challenge a doctor's decision?

17. Do you ever challenge doctors' decisions?

18. How does it make you feel?

What would you do if you felt a patient's medication needed altering and the doctor refused to change it?

19. Have you ever had any urgent interventions?

What did you do?

20. Do you have any concerns about using patient's medical notes?

21. Do you have any concerns with having to document your recommendations?

22. In what ways do you feel this project will alter your relationship with your patients?

23. How do you feel about providing health promotion advice for patients with CHD?

Do you think health promotion advice is effective - examples?

Have you received any training, or do you have any strategies in giving health promotion advice?

24. What do you hope to achieve from taking part in this project, personally and for your pharmacy?

Appendix 3

Focus Group Confirmation Letter Sent to Community

Pharmacists

Dear (Pharmacist's name)

Re: The Community Pharmacy Medicines Management Project – Pharmacist Feedback Meeting.

On behalf of the Research Team, I would like to invite you to a pharmacist feedback meeting. This will be held at:

Venue:

Date:

Time:

Finger buffet will be provided.

The aim of the meeting is to get feedback about your views and experiences of the project so far. This will form part of the ongoing evaluation of the project currently being carried out by the Research Team.

If you are unable to attend or require any further information, then please do not hesitate to contact me on 0115 8467321.

Thank-you in advance for your help

Yours sincerely,

Stacey Sadler

Research Fellow (Nottingham)

On Behalf of the Research Team

Appendix 4

Focus Group Invite Letter Sent to Community Pharmacists

Dear (Pharmacist's name)

**Re: The Community Pharmacy Medicines Management Project –
Pharmacist Feedback Meeting**

Thank-you for agreeing to attend the pharmacist meeting to provide feedback.
I am pleased to confirm the meeting will be held at:

Venue:

Date:

Time:

Finger buffet will be provided.

As discussed, the aim of the meeting is to get feedback about your views and experiences of the project so far. This will form part of the ongoing evaluation of the project currently being carried out by the Research Team.

If you are now unable to attend or require further information, then please do not hesitate to contact me on 0115 8467321.

Thank-you in advance for your help.

Yours sincerely,

Stacey Sadler
Research fellow (Nottingham)
On behalf of the Research Team

Appendix 5

Community Pharmacist Framework Topics for the Focus Group

Introduction:

- Introduce SS, DS /PB & role in meeting.
- Reiterate purpose of the focus group. Encourage input/opinions/examples of experiences.
- Explain re: taping – stress importance of not speaking over each other.
- Focus group *ground rules*: based upon social conventions & basic research.
- Any questions?

Begin recording:

- Ask attendees to introduce themselves (name & up to 2-3 sentence summary of their thoughts of the experience to date – *will help transcriber with voices, get them all involved.*

NB: Encourage examples! Encourage input from everyone.

1. How have the patient consultations gone? (30-35mins)

Aim to ascertain:

- Likes/dislikes...positives/negatives etc
 - Whether made medication interventions
 - Whether lifestyle interventions made
 - Whether had concerns with challenging doctors' prescribing decisions
 - If they (pharmacists) feel health promotion advice is effective
 - Remuneration –difficulties/plus point to project?
 - If require extra information on forms
 - If any home visits
 - How long patient consultations have taken?
 - Patient's perception of the service e.g. asking questions/patient's knowledge of their condition
- Summarise and give opportunity to comment

2. Why did you choose to participate in this project? (5-10mins)

Aim to ascertain:

What motivated them (e.g. financial? no choice? increased job satisfaction? increase clinical skills?)

(Probe) whether they would do this service if no payment

What they hope to achieve from taking part.

Summarise and give opportunity to comment.

3. How do you feel about undertaking a more active role in patient care? (15mins)

Aim to ascertain:

Whether pharmacists should be doing this role and why.

What they feel their limitations are.

How it affects their relationship with (1) patients and (2) GP's (establish what their current relationship is like)

Likes/dislikes, benefits/concerns about expanding role.

Summarise and give opportunity to comment.

4. How has the project worked in practice? (20-25mins)

Aim to ascertain

Good/bad practical points

(Find out) when/where have been doing interviews

Whether participating pharmacists feel this is a realistic future role

If they believe medicines management can work/is it value for money?

Summarise and give opportunity to comment

5. What was your prior knowledge of medicines management before commencing this project? (5-10mins)

Aim to ascertain

Feedback about the training sessions

Whether pharmacists would require training to undertake expanding role

Appendix 6

Community Pharmacist Semi-Structured Interview Schedule

1. How have the patient consultations gone?

Aim to ascertain:

- Likes/dislikes...positives/negatives etc
- Whether made medication interventions
- Whether lifestyle interventions made
- Whether had concerns with challenging doctors prescribing decisions
- Do they (pharmacists) feel health promotion advice is effective?
- Remuneration –difficulties/plus point to project?
- Require extra info on forms
- Any home visits
- How long have patient consultations taken?
- Patient's perception of the service e.g. asking questions/pt's knowledge of their condition

2. Why did you choose to participate in this project?

Aim to ascertain:

What motivated them (e.g. financial, obligation, increased job satisfaction, increased clinical skills)

(Probe) Whether they would do this service if no payment

What they hope to achieve from taking part

3. How do you feel about undertaking a more active role in patient care?

Aim to ascertain:

Whether pharmacists should be doing this role and why.

What they feel their limitations are.

How it affects their relationship with (1) patients and (2) GPs (establish what their current relationship is like)

Likes/dislikes, benefits/concerns about expanding role.

4. How has the project worked in practice?

Aim to ascertain

Good/bad practical points

(Find out) when/where have been doing interviews

Whether participating pharmacists feel this is a realistic future role

If they believe medicines management works/is it value for money

5. What was your prior knowledge of medicines management before commencing this project?

Aim to ascertain

Feedback about the training sessions

Whether pharmacists would require training to undertake expanding role

Appendix 7

Community Pharmacist Semi-Structured, Follow-up Interview Schedule

1. Can you give your overall impression of the medicines management service?

Can you sum up your experiences of the project?

Overall, has being involved in the project been a positive or a negative experience for you?

How has it impacted on your relationship with patients? Why?

Do you think the service has enhanced your status as a health professional? In what ways and why?

Would you take part in other studies / service development projects? If not, why not?

What motivated you to take part in the project initially?

2. Do you think that this model of medicines management works in community pharmacy?

If not, which aspects do you think do not work? Why is this?

What has been the major problem with this model of medicines management?

How could it be improved?

Do you think pharmacists should be providing a medicines management service in this form?

What are the barriers (if any) to them providing these services?

3. Do you think the service represents value for money for the government?

Financial costs vs. clinical benefits

Did you feel the pharmacist payment was adequate for the amount of work you had to do?

4. Has this project improved your relationship with your local GPs?

How?

If not, why not?

5. What was your relationship like with your GP pre- medicines management?

6. Do you think having an established relationship with your local GPs, impacts on the success of a medicines management Service?

Why?

7. What have you achieved by taking part in this project?

What did you hope to achieve?

If didn't achieve this, why not?

8. What was the outcome of your clinical or lifestyle interventions?

- a) Followed up
- b) Do not know
- c) Not followed up – if not, why not?

Get examples of the kind of interventions that were made

9. Have you followed-up the patients that you initially interviewed on subsequent occasions?

How have you done this? Arranged interview, or done it opportunistically?

If not, why not? Establish reason e.g. lack of time, patient did not require one

Did lack of money affect whether you would re-interview patients?

10. What impact do you think your consultation had on patients' understanding of health promotion messages?

11. Do you think your consultation affected patients' health behaviours or compliance with medication in any way?

Get examples

If not, why not?

Can a 30 minute interview have much of an impact on a patient's health behaviour/compliance?

Do you think the consultation improved patient's knowledge about medicines/CHD?

Do you think your approach to the consultation is different in any way to that of GPs? In what ways?

12. What style of patient consultation did you adopt?

Did your consultation affect patient concordance in any way?

Examples

Appendix 8

Letter Sent to Practice Managers Requesting GP Interviews

Practice Address

Dear (Practice Managers Name)

Re: The Community Pharmacy Medicines Management Project

As part of the on-going evaluation of the Community Pharmacy Medicines Management Project it is important for us to obtain the views and experiences of the GPs taking part in the project. Their views will form part of the final report about how the project has worked in practice.

I am writing to ask if you could inform the GPs in your practice that they may be contacted by Stacey Sadler, a Research Fellow in Nottingham, to take part in a telephone interview. The interview would take place at a time convenient to them and would take approximately 20 minutes to complete. Miss Sadler will be contacting them in the next few months to see if they are willing to do this.

If you or your GPs have any queries about the interview, please feel free to call me on 0800 015 1419 or Stacey Sadler on 0115 8467321.

Thank-you in advance for your help

Yours sincerely,

Mariesha Jaffray

Trial Co-ordinator

On behalf of the Research Team

Appendix 9

GP Semi-Structured Interview Schedule

Outcome measures: Professional satisfaction, perceived benefit/effect on other aspects of role e.g. workload. GET EXAMPLES!

1. How do think this project is working in practice?

If there are problems, what are they and how have they occurred?

What have been the positive points of the project? Why?

2. How has this project impacted on your day-to-day workload?

Have you received much contact from pharmacists during the project?

Has there been adequate time to meet up, phone/e-mail etc with pharmacists?

Has there been adequate time to read paperwork/recommendations?

3. When you have received recommendations from the community pharmacist, what have you done?

Have the recommendations been appropriate? – get examples

If not, why not.....get examples

Did you feel your CHD patients were already on the recommended regimen of drugs?

If so, have you been surprised at the interventions made by pharmacists?

4. What is your working relationship like with the pharmacists in your area?

Does your practice have a practice pharmacist? If yes how do they differ from community pharmacists?

Has the relationship improved/worsened since commencing the project?

How would GPs as a population react to a closer working relationship with pharmacists?

5. What do you think about the pharmacist's role in reviewing patient's medication and having an increased input into patient care generally?

Advantages/disadvantages – what are they?

Is it a good thing?

Why do you think community pharmacists role is changing?

6. Do you think pharmacists have the necessary expertise/training to carry out this role?

If no, what do you feel they lack?

Can they provide this MMS without having access to patient notes?

Are there specific areas in which you feel pharmacists could have more of a beneficial role?

7. Do you feel this project will involve a 'shift in roles' between pharmacists and doctors?

If yes, what do you think the changes will be?

If no, why not?

Will it affect your job?

8. Do you feel that a community pharmacy is an appropriate setting to review patient's medication?

Is it private enough?

9. Have you received any feedback from your patients about this project?

Have patients liked it?

Has it increased their knowledge?

Have you had feedback from other colleagues?

10. Why did you decide to participate in this project?

Your motivation to participate e.g. changes in practice, financial, obligation?

11. Would you support the project being rolled out nationwide?

Would you support it for other disease states?

Would you support it continuing in CHD in this PCT?

If not, why not?

What are the likely limits on it being funded in a PCT? E.g. costs in relation to other services? Priorities in relation to other services?

Appendix 10

GP Semi-Structured Interview Schedule (Version Two)

Outcome measures: Professional satisfaction, perceived benefit/effect on other aspects of role e.g. workload. GET EXAMPLES!

1. What do you know about this project?

How did you get involved?

Did you feel obliged to get involved?

Did you go to the meetings?

How involved were you in the development of the project?

2. How do think this project is working in practice?

If there are problems, what are they and how have they occurred?

What have been the positive points of the project? Why?

3. How has this project impacted on your day-to-day workload?

Have you received much contact from pharmacists during the project?

Has there been adequate time to meet up, phone/e-mail etc with pharmacists?

Has there been adequate time to read paperwork/recommendations?

4. When you have received recommendations from the community pharmacist, what have you done?

Have the recommendations been appropriate? – get examples

If not, why not.....get examples

Did you feel your CHD patients were already on the recommended regimen of drugs?

If so, have you been surprised at the interventions made by pharmacists?

5. What is your working relationship like with the pharmacists in your area?

Have you done any previous projects with the community pharmacist?

Do you trust/have confidence in your community pharmacist?
Does your practice have a practice pharmacist? If yes how do they differ from community pharmacists?
Has the relationship improved/worsened since commencing the project?
How would GPs as a population react to a closer working relationship with pharmacists?

6. What do you think about the pharmacist's role in reviewing patient's medication and having an increased input into patient care generally?

Advantages/disadvantages – what are they?
Is it a good thing?
Why do you think community pharmacists role is changing?

7. Do you think pharmacists have the necessary expertise/training to carry out this role?

If no, what do you feel they lack?
Can they provide this MMS without having access to patient notes?
Are there specific areas in which you feel pharmacists could have more of a beneficial role?

8. Do you feel that a community pharmacy is an appropriate setting to review patient's medication?

Is it private enough?

9. Have you received any feedback from your patients about this project?

Have patients liked it?
Has it increased their knowledge?
Have you had feedback from other colleagues?

10. Why did you decide to participate in this project?

Your motivation to participate e.g. changes in practice, financial, obligation?

11. Would you support the project being rolled out nationwide?

Would you support it for other disease states?

Do you think this type of service is sustainable?

Would you support it continuing in CHD in this PCT?

If not, why not?

What are the likely limits on it being funded in a PCT? E.g. costs in relation to other services.

Priorities in relation to other services.

Who should fund a MMS?