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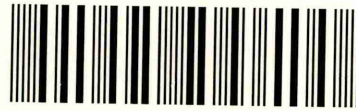
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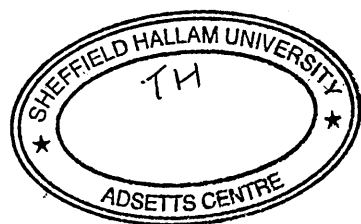
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**Changes within community pharmacy: Implications for
professional, public and commercial policy making**

Peter Austin Magirr

**A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy**

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Abstract

This research considers the effects of a major change in the provision of community pharmaceutical services in England. Commercial companies now provide the majority of the service with a marked decrease in provision by independent contractors. This change may be described as the corporatisation of community pharmacy.

This is important because public policy assumes the service is of a uniform standard irrespective of the occupational status, working pattern and organisational setting of the practitioner. Professional policy has also subscribed largely to this belief, but allowed models of practice to develop in which pharmacists seem to have a considerable variation of control over their professional work. Commercial policy has been driven by organisations seeking to maximise profitability and develop cost effective models of professional practice.

Pressures from these sources impact upon community pharmacists and give rise to concerns regarding their ability to carry out their professional responsibilities fully. Of particular concern is their professional autonomy, regarded by many commentators as the distinguishing characteristic of the professions.

This research is an exploration of whether, and to what extent community pharmacists' professional autonomy has been affected by corporatisation.

Empirical work undertaken led to an instrument that made use of practice based scenarios to locate the degree of professional autonomy that community pharmacists perceived they possessed. After two successful pilots, the instrument was used in a large-scale survey of community pharmacists throughout England.

The results indicated that community pharmacists' perception of their professional autonomy varied considerably. The variation was linked to their occupational status and whether they worked on a full or part-time basis. These factors are closely related to the corporatisation of community pharmacy.

The findings have considerable policy implications. From the perspective of professional policy, the erosion of professional autonomy found with respect to some categories of community pharmacists calls into question the professional status of pharmacy. From the perspective of public policy the tacit assumption that professional services provided through a variety of organisational structures are essentially the same has been shown to be naïve. With regard to commercial policy the overwhelming strength of the commercial agenda risks deprofessionalising community pharmacy.

The conclusion reached is that the existing contractor model for the provision of pharmaceutical services should be reviewed and consideration given to replacement with a model that takes into account the realities of current provision.

PREFACE

Since qualifying as a pharmacist in 1978 I have spent my career in community pharmacy. From the outset I have had a strong interest in the practice of pharmacy and therefore when practice research funding was made available by the Department of Health I applied for support in order to undertake an MBA degree, part-time, at the Sheffield Business School, which became part of Sheffield Hallam University.

Within the MBA I undertook research into the composition of the community pharmacy workforce and attempted to quantify the proportion of community pharmacy services delivered by independent contractors and by commercial companies, via employee and locum pharmacists.

The findings from the MBA research that an increasing proportion of the service was provided via commercial companies led me to consider what the implications of this change were. To this end I sought further funding from the Department of Health in order to explore the implications of the change, within a PhD programme of research.

Published Original Papers

Measuring the Employee / Contractor Balance

Pharmaceutical Journal 1995; 254: 876-879.

Magirr, P.A. and Ottewill, R.M.

Changes in the Ownership of Community Pharmacies: Policy Implications

Public Money & Management 1999;19, 2, 39-44

Ottewill, R.M. and Magirr, P.A.

Management Competence Development for Professional Service SME's: The Case of Community Pharmacy

Education & Training 2000 , 42, 4/5 246-254

Ottewill, R.M. Jennings, P.L. Magirr, P.A.

Published Article

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Pharmaceutical Journal 1995;255: 471-474

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Conference Papers

Changes in the Community Pharmacy Workforce in England : Implications for the Public, Professional and Commercial Agendas

Magirr, P.A. Noyce, P.R. Ottewill, R.M. and Wisher S.

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Presented at the 26th European Small Business Seminar, held at the University of Vaasa, Finland, September 1996

Professional Autonomy in Community Pharmacy

Magirr, P.A. Grimsley, M.F. Ottewill, R.M. and Noyce, P.R.

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Changes within community pharmacy: Implications for professional, public and commercial policy making

Chapter 1: Introduction

This research is concerned with the professional activities of community pharmacists in England, within their practice setting, which is known as the community pharmacy or the retail pharmacy or the chemist's shop.

Community pharmacists are highly qualified practitioners who interact with their patients/clients in a retail environment and provide a range of services including the dispensing of prescriptions. They may be self-employed or work for a variety of organisations. In recent years there has been an increase in the provision of the service by employee pharmacists and as will be demonstrated, this now constitutes the majority of service provision.

This change in the occupational status of community pharmacists is potentially of very great importance with regard to the way in which professional responsibilities are discharged and services are provided for patients. It may therefore be of great significance to the pharmacy profession, as attempts are made to enhance the standing of pharmacy by seeking and consolidating an extended role^{1, 2, 3}. In addition it may be of great importance to the Department of Health as government seeks to ensure that pharmacy makes its full contribution to healthcare, as is spelt out unambiguously within "Pharmacy in the Future – Implementing the NHS Plan"⁴, the current programme for pharmacy in the National Health Service. However, in spite of the importance of the change in the composition of the community pharmacy workforce, and the consequences that may ensue, the response from the research community has been largely confined to tracking and monitoring. Thus the literature does not contain studies that have sought to investigate the effects of this significant change, in particular with regard to the service provided to patients. This is a significant gap in knowledge and one that this PhD programme of research

seeks to address. In so doing regard must be given to the most appropriate dimension for exploration, as it should be central to the work of community pharmacists as they carry out their professional role. After much consideration I chose, because of its vital importance, to undertake an exploration of professional autonomy. It is of note that at the outset of this research the profile of professional autonomy in pharmacy was extremely low. There is recent evidence however of an emerging awareness of the importance of the topic. Harding and Taylor writing in Pharmacy Practice⁵ comment that:

“the increasing corporatisation of community pharmacy thus raises questions as to whether the professional autonomy of pharmacists is susceptible to compromise by commercial interests, with their activities constrained, controlled and regulated by routinised bureaucratic procedures”

Professional autonomy, although an abstract concept may be regarded as the distinguishing characteristic of a profession, and is central to the discharging of the professional role⁶. If the professional autonomy of pharmacists has been significantly affected, as a result of the changes occurring within the workforce, it is extremely important to know that this is the case. It is also vital to try and understand what the implications of such an outcome would mean in order for policy to be informed appropriately. The task of determining whether professional autonomy has been affected, is however problematic as professional autonomy has been relatively unexplored within the pharmacy literature, in comparison to that for medicine and nursing. Therefore the state of knowledge with respect to our understanding of how professional autonomy operates within pharmacy, and in particular within the community pharmacy workplace is severely limited. We simply do not know how, or to what extent practitioners are able to exercise professional autonomy in their interactions with their patients/clients. This lack of knowledge and awareness of how professional autonomy is expressed within community pharmacy constitutes a research void which hinders attempts to understand how this important primary care profession provides professional services to patients/clients, in a changing practice environment. In order to address these deficiencies the literature from

a number of disciplines has been considered, these include pharmacy practice, management, professionalism and social science.

Within this research programme therefore, it is intended to utilise approaches from a variety of sources, to explore professional autonomy, within the context of the community pharmacy workplace and make a meaningful contribution to knowledge.

This first Chapter is intended to provide an introduction to some key aspects of the work of community pharmacists, their practice setting and the policy agendas by which they are affected. It is followed by a second Chapter, in which professional autonomy will be discussed, initially in broad terms and then more specifically with respect to community pharmacy. These Chapters comprise the introduction to this thesis, they seek to locate community pharmacy within the healthcare professions and explain why professional autonomy is so important in the work carried out by community pharmacists.

1.1 The Professional Status of Pharmacy

Pharmacy has enjoyed professional status for many years, the foundation of the Pharmaceutical Society of Great Britain in 1841 having been followed by considerable legislation which sought to define the responsibilities of pharmacist, the main Acts being the Pharmacy Act 1954, the Medicines Act 1968 and the Misuse of Drugs Act 1971.

1.2 Qualification (RPSGB) as a Pharmacist

In order to practise as a qualified pharmacist a considerable training programme has to be undertaken. Pharmacists currently complete a four year honours degree to obtain an MPharm. Master of Pharmacy degree, the main study areas are pharmaceutics, pharmaceutical and biological chemistry, pharmaceutical microbiology, physiology, pharmacology, clinical pharmacy and

pharmacy practice. Following the university based course a mandatory one year pre-registration placement is undertaken, at the end of which the graduate takes the registration examination. Upon successful completion of both the placement year and the examination the graduate may register as a Pharmaceutical Chemist and become a member of the Royal Pharmaceutical Society of Great Britain (RPSGB). Members are entitled to list their professional qualification by the use of the abbreviation MRPharmS after their name.

1.3 Area of Practice

Following qualification pharmacists may choose to practise in a number of settings including; primary care, as a community pharmacist, or as a prescribing adviser based within a General Practitioner's (GP) surgery or Primary Care Trust (PCT); secondary care as a hospital pharmacist, industry and academia. The Pharmaceutical Journal, the weekly professional journal of the RPSGB publishes, at irregular intervals, information on the composition of the pharmacy workforce. The information is compiled from the results of the RPSGB annual manpower surveys of the "home register" (ie, excluding overseas members). In 1996 the Journal published details of the 1993 and 1994 surveys. This is the most up to date published data. A summary of these data is provided in Table 1.1

Table 1.1: Composition of the pharmacy workforce 1992 – 1994

Occupation	1992		1993		1994	
	Number	%	Number	%	Number	%
Community	20909	62.7	20853	60.6	21175	61.1
Hospital	5081	15.2	5463	15.9	5526	15.9
Academic	371	1.1	377	1.1	392	1.1
Industry	1556	4.7	1643	4.8	1658	4.8
Other	1247	3.7	1421	4.1	1556	4.5
Not Working	4202	12.6	4660	13.5	4349	12.5
Total	33366	100.0	34417	100.0	34656	100.0

The RPSGB was contacted in an effort to elicit more recent data and sent the information presented in Tables 1.2 and 1.3.

Table 1.2 Estimates of Membership by Sex and Principal Occupation-Females

Occupation	1995		1996	
	Number	%	Number	%
Community	10110	58.5	11149	62.1
Hospital	4100	23.7	3817	21.2
Industry	671	3.9	605	3.4
Wholesale	9	0.7	10	0.1
Teaching	126	0.7	78	0.4
Other pharmacy	413	2.4	865	4.8
Non-pharmacy	359	2.1	428	2.4
Not working	1503	8.7	1015	5.6
Total	17291	100.0	17967	100.0

Source: Personal communication from RPSGB

Table 1.3 Estimates of Membership by Sex and Principal Occupation-Males

Occupation	1995		1996	
	Number	%	Number	%
Community	11888	64.2	13017	69.3
Hospital	1762	9.5	1534	8.2
Industry	959	5.2	860	4.6
Wholesale	58	0.3	113	0.6
Teaching	269	1.5	280	1.5
Other pharmacy	370	2.0	628	3.3
Non-pharmacy	473	2.6	572	3.0
Not working	2726	14.7	1786	9.5
Total	18505	100.0	18789	100.0

Source: Personal communication from RPSGB

It is clear from the data in Tables 1.1 – 1.3 that community pharmacists are by far the largest constituency within the pharmacy workforce, over 60% of all registered pharmacists and over 70 % of pharmacists in paid employment work in community pharmacy.

1.4 Community Pharmacy

This body of work is concerned with community pharmaceutical services (CPS), which are those services provided by pharmacists who have chosen to practise in a primary care setting and who are termed community pharmacists (not to be confused with Community Services Pharmacists (CSPs), who are based in secondary care). These services comprise a number of areas and may be divided into general services, which are usually provided by every community pharmacist and specialist services that may be undertaken by community pharmacists with additional training. The core function of CPS has been the dispensing of medicines, however a number of other services are also considered to comprise general services. The listing below, derived from one which appeared in the Pharmaceutical Journal,⁷ is not exhaustive but does cover the main areas.

Figure 1.1 General and specialist community pharmacy services

General Services	Specialist Services
Dispensing medicines	Developing pharmaceutical care plans
Concordance support	Special needs services
Repeat & instalment dispensing	Monitored dosage systems
Delivery to housebound patients	Domiciliary visits
Patient referrals	Palliative care
Medicine advice	Therapeutic drug monitoring
OTC* counter prescribing	Pharmacotherapy clinics
Patient medication records	Training of other health care professionals
Appliance dispensing	Developing shared care protocols
Health promotion	Out of hours services
Disposal of unwanted medicines	Medication review
Adverse drug reaction reporting	Developing local formularies
Emergency supply of drugs	Complementary medicines
Prescribing advice	Health screening
Travel advice	Needle & syringe exchange
	Welfare food distribution
	Smoking cessation
	Prepayment certificate supply
	Oxygen provision
	Nursing / residential homes support
	Disability aids

* Over the counter

Some of the services listed come within the ambit of the National Health Service (NHS) and are funded by the NHS whilst others do not and this is of major importance. Community pharmacy services have traditionally been provided in a retail environment, in essence within a shop. Community pharmacists have supplemented their NHS income with additional revenues generated by their retail activities. Many of these retail activities are closely linked to their professional knowledge eg, providing advice about minor ailments may lead to the sale of a medicine, however not all retail activities are so linked. Many community pharmacies generate significant income from the sale of products such as cosmetics, photographic goods and general toiletries. The balance between NHS work and non-NHS work varies enormously from pharmacy to pharmacy but it is thought that the NHS dispensing accounts for around 70% of

the turnover of a typical pharmacy and the trend is upwards. Anderson⁸ with reference to 1995 data for independent community pharmacists reports dispensing income at this level, up from a level of around 50% in 1975.

1.5 Community Pharmacists and the Independent Contractor Model

Community pharmacists are not employees of the NHS, the relationship between community pharmacy and the NHS is based upon a contractor model and has at its heart the dispensing of NHS prescriptions. This model, chosen at the inception of the NHS is based upon the service being provided by a pharmacist who holds a dispensing contract with the Health Authority (HA).

Such a pharmacist is defined as an independent contractor and there are some similarities with other family health service professions such as dentistry and medicine, however the arrangements are not identical. In the pharmacy independent contractor model for example, the pharmacist is not linked to the NHS via mechanisms such as NHS superannuation in contrast to GP's and Dentists. Also there is no contribution to the costs of support staff, premises and equipment which again contrasts the situation pertaining to general medical practice. Community pharmacy contractors are therefore in many ways far less part of the NHS community than other contractors, and considerably more exposed to the risks of operating in the private sector.

One further significant difference predates the NHS and is concerned with the way that pharmacy has evolved in Britain as compared to many European countries. In Britain the development of the pharmacy chain or multiple has been a feature of provision and the legislative framework has allowed for this, unlike in much of Europe where pharmacists have been restricted from operating more than one pharmacy (as is currently the case in France, Germany, Spain, Austria and Denmark⁹). Thus at the formation of the NHS there were a number of pharmacy chains in operation and the NHS has had to take account of them.

Where a multiple is the service provider the HA enters into contract with the company, not the pharmacist. In this case the pharmacist delivering the service may be an employee of the company, or a self-employed locum, retained by the company. However the arrangements for the contract are settled it is always the case that a separate contract exists for each and every pharmacy.

The number of contracts that a company may hold is not limited and since 1968 the proportion of dispensing contracts held by multiples (defined as operating 5 or more pharmacies) has risen significantly. Table 1.4 shows the trend for the period 1988-1998.

Table 1.4 : Ownership of community pharmacies (England) 1988-98

Year	Total	Independents	Multiples	% of Multiples
1988	9753	7056	2697	27.7
1989	9694	6899	2795	28.8
1990	9725	not available	not available	not available
1991	9715	70009	2706	27.9
1992	9765	6794	2971	30.4
1993	9763	6706	3057	31.3
1994	9766	6596	3170	32.5
1995	9771	6475	3296	33.7
1996	9787	6299	3488	35.6
1997	9773	5996	3777	38.6
1998	9785	5807	3978	40.6

Source: Public Money & Management (1999) 19:2 p41

Recent information published by the Department of Health in December 2001¹⁰ indicates that the trend is still upwards with multiple ownership reaching 46% in 1999 - 2000 and 48% in 2000 – 2001.

The largest of multiples, companies such as Boots the Chemist and Lloyds Pharmacy, now hold over a thousand contracts each. Middle ranking multiples such as Moss Chemists, who are a subsidiary of the wholesaler Unichem, hold in excess of 500 contracts and newer entrants include the Rowlands group who

have grown to over 200 contracts since 1998. In addition the supermarkets have shown a considerable interest in diversifying into pharmacy operations. Table 1.5 shows the growth in supermarket pharmacy between 1987-97.

Table 1.5 : Supermarket Chains: In-store Pharmacies

Name	Outlets 1987	Outlets 1997
Tesco plc	0	182
Safeway plc	16	88
Sainsbury plc	0	20
Asda Stores Ltd	0	18

Source: Public Money & Management (1999) 19:2 p41

This change in the provision of CPS has meant that more and more of the NHS dispensing service is provided from pharmacies operated by large companies and staffed with employee pharmacists. Research undertaken previously in the course of an MBA degree¹¹ indicates that two thirds of all community pharmacists providing NHS dispensing services in England are employees. This work was published in the Pharmaceutical Journal in 1995.¹²

Although some chains were in existence long before the start of the NHS, eg, Boots the Chemists from 1877, they did not at the outset provide a major part of the service. This situation has evolved over a number of years as has been detailed in Table 2 and represents a major change to the provision of community pharmacy services and arguably calls into question the efficacy of the contractor model from a number of perspectives. At the very least it may suggest that the model should be re-examined in the light of current provision to determine if it is still appropriate. The implications for public policy developments relating to pharmacy should also be considered in a number of areas due to this change in the provision of CPS. This is a consideration overlooked by the major investigations of the past, which have sought to examine the role of community pharmacy and service delivery^{13, 14}. It is also

missing from “Pharmacy in the Future”¹⁵ which deals with the implementation of the NHS Plan for pharmacy.

1.6 The Policy Agendas

As has been described community pharmaceutical services comprise a number of services, including the important public service of dispensing NHS prescriptions, delivered by practitioners in a predominantly retail environment within commercial organisations of varying sizes. This situation involves giving consideration to issues from differing policy agendas, each of which either alone or in combination may affect the context in which community pharmacists exercise professional autonomy. Within this research, and building upon initial work from the MBA¹⁶ it is suggested that three distinct policy areas may be identified, these are:

Public policy, as the dispensing of NHS prescriptions and the contribution that community pharmacists make to public health is a matter for public policy. The various strands of public policy which impact upon community pharmacy may be considered as a **public policy agenda** and will be referred to as the public agenda.

Professional policy, as pharmacy is a recognised profession and community pharmacy is the largest component it is clear that the professional policies are extremely relevant to the operation of community pharmaceutical services. The various strands of professional policy which impact upon community pharmacy may be considered as a **professional policy agenda** and will be referred to as the professional agenda.

Commercial Policy, as community pharmacy services are delivered within a private sector retailing environment they are considerably affected by the commercial policies and strategies that organisations use to achieve their goals. The various strands of commercial policy impacting upon community

pharmacy may be considered as a commercial policy agenda and will be referred to as the commercial agenda.

Each of the three key policy agendas will be briefly discussed below, primarily with regard to content. The impact of the agendas on professional autonomy will be discussed in Chapter Two.

1.6.1 The Public Agenda - the content of this agenda is determined by the interplay of political forces both within government (eg, ministers, civil servants) and without (eg, pressure groups, media, public opinion). For the CPS the significance of this agenda arises, in the main, from the fact that they continue to be an integral part of the NHS.

The Government's vision for the place of pharmacy in the NHS in England was published in September 2000. Entitled "Pharmacy in the Future: Implementing the NHS Plan"¹⁷, the Government has set its agenda for the development of pharmacy services in primary care for the next decade. The document opens with a foreword by Lord Hunt, the health minister, in which he states that:

"as one of the primary health professions in the NHS, pharmacy has a vital part to play in delivery of the NHS plan".

He also stated that:

"pharmacists are an integral part of most people's experience of NHS care"

But added that the consultation exercise revealed the public considered:

"much more use could be made of the skills and expertise of pharmacists".

To a large extent this sentiment echoes what the profession has been saying for years and hence holds out the prospect of new developments which could satisfy the aspirations of both government and the profession.

The programme envisaged within Pharmacy in the Future is in four parts:

1. Better Access To Services – Building on the Strengths of Pharmacy
2. Helping Patients Get The Best From Their Medicines
3. Redesigning Services Around Patients – Getting the Structures Right
4. Ensuring High Quality Services – Getting the Most from Staff

Contained within these four sections are a number of initiatives that threaten the status quo:

- The shift of emphasis from the pharmacy to the pharmacist.
- The expansion of the role to include medicines management services.
- The advent of electronic prescription transfer and e-dispensing
- The new one-stop centres, walk-in centres and NHS Direct
- The possibility of trusts directly employing community pharmacists.

Public policy regarding community pharmacy is responding to a number of factors, these include:

- Rising public expectations and the search for the most appropriate means of ensuring the continued accessibility and acceptability of the service provided.
- The moves towards a greater degree of welfare pluralism.
- The range of responsibilities exercised by community pharmacists.
- The shift towards a primary care led NHS
- The spiralling cost of the drugs dispensed by community pharmacists. In 2000 some 552 million prescriptions were dispensed at an average cost of £10.12 This cost amounted to £5.585 billion¹⁸ and was up over 13% on the 1998 cost. This represents an almost four fold increase from the £1.4 billion cost recorded in 1986.

Government is faced with the task of balancing a variety of interests, including those of community pharmacists, and therefore public policy tends to develop incrementally.

The key player at the centre for the development of the public policy agenda is the Department of Health and within this the pharmaceutical division headed by the Chief Pharmacist and comprising a small team. At a more local level the Health Authorities, who currently hold the contract, can impact upon policy development. At a more local level still the emerging Primary Care Trusts (PCTs) look set to have more of a role in the future as increased devolution of functions and resources to primary care gathers pace. The recently published government document, *Shifting the Balance of Power*¹⁹ outlines the agenda for devolving contractor services, including community pharmacy services to Primary Care Trusts.

A further and very significant thrust of the public agenda which affects all of the health care professions is clinical governance. This emerged as a major component of health policy shortly after the election of the 1997 Labour Government and was detailed in "Clinical Governance: Quality in the New NHS"²⁰. Clinical governance is a framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish. The elements of clinical governance are:

- Clear lines of responsibility and accountability for the overall quality of clinical care.
- A comprehensive programme of quality improvement activities, including clinical audit and continuing professional development.
- Clinical guidelines/evidence-based practice, research and development, and effective monitoring of clinical care.
- Clear policies aimed at managing risks
- Procedures for all professional groups to identify and remedy poor performance

Guidance on the implementation of clinical governance in primary care²¹ was initially focussed upon the work to be carried out by medical and nursing clinicians in the emerging Primary Care Groups (the precursors of Primary Care Trusts), however within Pharmacy in the Future it is explicit that community

pharmacy must become fully integrated into multi –disciplinary clinical governance arrangements.

The public policy agenda and the professional agenda although distinct are closely aligned in a number of areas and clinical governance is a prime example. The publication of “Clinical Governance: Quality in the New NHS” in March 1999 was followed in September of the same year by “Achieving excellence in pharmacy through clinical governance”²² from the RPSGB. Clearly there is a considerable degree of interaction between the Department of Health and the RPSGB in the production of policy and strategy. This type interaction is detailed within the management literature, and the example given concerning the generation of strategies accords with Mintzberg’s²³ “model of collective choice” in which decisions are handled “in interactive processes that combine professionals with administrators from a variety of levels and units.” Another clear example of the collective choice process is the work carried out to produce the report of the joint Department of Health / RPSGB working party on pharmaceutical care (previously referenced).

1.6.2 The professional agenda - The key player in the setting of the professional agenda is the Royal Pharmaceutical Society of Great Britain (RPSGB). The RPSGB is the regulatory body for the profession and is responsible for the production and maintenance of the Code of Ethics. The RPSGB is intimately involved in the generation of professional strategies, and like most professional organisations occupying this role its key area of strategy making concerns the elaboration of the basic mission²⁴.

Amongst community pharmacists, like other professionals the principal issues remain those of autonomy and status. It is felt that the freedom to apply their distinctive expertise is being eroded and that this inevitably affects both their practice and morale. Moreover in seeking to address these concerns by extending their role, community pharmacists are inevitably drawn into conflict with other primary health care professionals, such as GPs who are sensitive to boundary encroachment. Edmunds and Calnan²⁵ found that although GPs

were reasonably happy about delegation of routine tasks to community pharmacists they sought to maintain control via strategies of limitation and exclusion. With regard to more clinical tasks however the potential for conflict is increased. Allsop and Mulcahy²⁶ suggest that GPs resistance to the clinical aspect of some of the extended roles for pharmacists may be rooted in the fact that clinical identity is particularly important to doctors' identity because of their lengthy training and the centrality of the concept of clinical autonomy. These issues have been recognised by the RPSGB which in October 1995 launched a process designed to stimulate debate on the future of the profession and develop a strategy for the future of pharmacy. This programme was entitled "Pharmacy in a new age" (PIANA) and attempts were made to involve the whole profession. In February 1996 a series of briefing papers were issued on factors considered to affect the profession and widespread consultation took place. This resulted in the publication by the RPSGB of an interim response in September 1996 entitled "The New Horizon" which identified four key areas for the profession: the management of prescribed medicines; the management of chronic conditions; the management of common ailments; and the promotion and support of healthy lifestyles. The PIANA programme concluded with the publication by the RPSGB of "Building the Future" in September 1997 which considered each of the four areas and set aims and targets for the profession with respect to each one. This unprecedented level of activity by the RPSGB in developing professional strategy has taken place since the commencement of this PhD research and therefore the extent to which it has addressed issues of professional autonomy have been noted and will be commented on in the discussion Chapter of this thesis.

1.6.3 The commercial agenda - This agenda is shaped primarily by economic forces, it contains a number of organisations which bring influence to bear. These include the Company Chemists Association (CCA) which represent the interests of the multiple groups. The National Pharmaceutical Association (NPA) which represents pharmacy contractors and employers and the Pharmaceutical Services Negotiating Committee (PSNC) which is the body charged with

negotiating the terms of the pharmacy contract. The work of these bodies is rendered very difficult as community pharmacy lacks economic autonomy as described by Elston²⁷. That is to say it does not have control over its remuneration and is therefore negotiating with the state from a position of weakness. The situation is rendered more difficult as the state, represented by the Department of Health is a single powerful customer or buyer of the NHS dispensing service. Community pharmacy, as the supplier of these services is fragmented into a multiplicity of organisations. Within the management literature this type of situation has been described by Porter²⁸ in the context of his model of competitive rivalry. This may be briefly described as a situation where an imbalance in the power of suppliers and buyers leads to advantage to one at the expense of the other. Community pharmacy has traditionally dealt with the consequences of this lack of power to control remuneration for dispensing by combining the professional role with that of retailing, and hence community pharmaceutical services are provided in a profit seeking retail setting. This means operating in a rapidly changing and increasingly competitive environment presenting a number of challenges. For the independent contractor and the smaller chains, these relate, in the main, to changing shopping patterns, the growth of one stop out-of-town retail developments, and most recently the impact of internet pharmacies. In many ways it is within this group, comprising small and medium sized enterprises (SMEs), that the challenges are most acute. According to the annual retail inquiry survey, community pharmacy SMEs with between one and nine outlets in the UK account for approximately 60% of the total turnover on NHS dispensing²⁹. This in turn represents approximately 65% of their overall turnover. The rest of their turnover is accounted for by the sale of commercial products such as over the counter medicines, cosmetics and toiletries, all of which are subject to intense competition as alternative sources of supply abound.

For community pharmacists employed by multiples, challenges arise from the impact of organisational growth on their role and from the need to ensure that the contribution which professional services can make to the financial health and viability of the business is fully realised. It is of note that whilst there are a

number of organisations representing the commercial interests of pharmacy companies and contractors there is at present no substantial organisation representing the commercial interests of community pharmacists who are not contractors.

1.7 The Scope of the Research

This Chapter has provided an introduction to community pharmaceutical services and the context in which they are delivered. It has highlighted that whilst it is possible to track the effect of changes in service provision in terms of numbers of pharmacies per multiple, number of supermarket pharmacies and percentage of the professional workforce that are employees, this is merely descriptive information. It does not inform us of whether, or how, these changes might affect the service provided to patients/clients and other stakeholders, within the variety of practice situations. This is in effect what is not known and is the area that this research seeks to address by focusing upon a key determinant of the professional role – professional autonomy. It is intended to explore the operation of professional autonomy within the community pharmacy workforce with respect to a number of relevant variables. These include occupational status (whether a contractor, employee or locum pharmacist). In addition a number of other variables present within the pharmacy workforce, such as gender, full or part-time working, size of employing organisation and experience as a pharmacist will be examined, in order to gain understanding of how they affect the exercise of professional autonomy.

Thus, this research seeks to significantly extend the state of knowledge with regard to professional autonomy, as utilised by members of the pharmacy profession. The findings of the research will be commented upon with reference to a number of key elements that may be materially affected, these include; the contractor model, public professional and commercial policy development and the patient's interest. This addition to the state of knowledge should be of considerable benefit in developing a more detailed understanding of a significant dimension of pharmacy practice. It may also have implications

for other health care professions which have to a greater or lesser extent to address issues of professional autonomy.

1.8 The Structure of the Thesis

It is the measurement and explanation of potential variations in autonomy within the community pharmacy workforce, that constitute the central themes of this research project. Therefore, the structure of the thesis will be as follows:

- An exploration of the concept of autonomy in a professional context, with reference to community pharmacy. (Professional Autonomy: Chapter 2)
- The aims of the research and the research questions. (Aims: Chapter 3)
- The design a suitable analytical instrument to measure the scope of an individual community pharmacist's professional autonomy. (Methods: Chapter 4)
- The application of the instrument to a sample of community pharmacists so that a sufficient number of pharmacists from a variety of organisational settings and with differing occupational status respond. (Methods: Chapter 4)
- Modelling the aspects of professional autonomy possessed by community pharmacists with respect to a number of independent variables. (Results: Chapter 5 & 6)
- Discussion of the findings with respect to the scenarios, the independent variables and the research questions. (Discussion: Chapter 7)
- Conclusions and recommendations, comments on the implications for public, professional and commercial policy. (Conclusions and recommendations: Chapter 8)

Chapter 2: Autonomy

Autonomy, from the Greek words, autos meaning self and nomos - to rule, is defined as “the power or right to self government”³⁰, in the context of the professions it is extremely important, and is arguably central to the professional identity. Over a number of years, as the literature on professionalism has developed, autonomy has increasingly been seen as crucial to professional status and to the discharging of the professional role³¹. With regard to the former, discussion centres around issues such as whether an occupation is professionalised, and to what extent it is able to self regulate and define its boundaries. With regard to the latter, the discussion is located more at the level of the practising professional and includes issues such as the degree of autonomy they possess and how this impacts upon their ability to carry out the professional tasks required of them. This research is directed towards developing an understanding of these issues, as they affect community pharmacists in the provision of a variety of professional services for their patients. Professional autonomy will, therefore, be discussed initially in broad terms. This is followed, by a consideration of some of the most important issues for pharmacists and concludes with some conceptual models, which may be useful in exploring how autonomy is exercised in community pharmacy practice.

2.1 Professionalism and Autonomy

The seminal work on professions and professionalism is “The Professions” by Carr-Saunders and Wilson³². First published in 1933, this work contains a systematic review of “those vocations which by common consent are called professions, together with others which claim that title or whose organisation or other characteristics resemble in some degree those of the acknowledged professions³³”, One such vocation was pharmacy. In addition to carrying out the review, Carr-Saunders and Wilson sought to identify the characteristics which distinguish professions from non-professions. In so doing, they initiated what has come to be known in the sociological literature on professions as the trait or

checklist approach. Sometimes the term “functionalist approach” is also used in this context, since from this perspective professions are viewed as performing useful social functions.

Carr-Saunders and Wilson's list of traits includes:

- Prolonged and specialised intellectual training whereby practitioners acquire a technique which enables them to render a specialised service to the community.
- The performance of a service for a fixed remuneration.
- The development of a sense of responsibility for the technique which is manifested in the concern of practitioners for the competence and honour of the practitioners as a whole.
- The forming and building up of associations upon which they erect, with or without the co-operation of the State, machinery for imposing tests of competence and enforcing the observance of certain standards of conduct.

However, in discussing these traits there are only hints of the concept of professional autonomy. These can be seen in their references to the “sense of responsibility” and “personal judgement” which characterise relations between professionals and their clients.

Taking their lead from Carr-Saunders and Wilson, a number of academics used the trait approach to explore the nature of professionalism³⁴ and to assess whether or not particular occupations, such as architecture³⁵, accountancy³⁶ and social work³⁷, possessed the attributes of a profession. However, as Millerson³⁸ found from his review of the works of twenty-one authors, there was no general agreement as to what these traits should be. Indeed he identified no fewer than twenty-three traits none of which was common to all the authors. His findings are contained in “The Qualifying Associations. A Study in Professionalization”, which was published in 1964 and is generally considered to be an authoritative and comprehensive work on this approach. Millerson found that the most commonly mentioned professional traits were³⁹:

- The possession of a skill based on theoretical knowledge.
- Provision of education and training in that skill.
- The demonstration of competence through testing.
- The maintenance of integrity through adherence to a code of conduct.
- A service that is provided for the public good.

Other traits, which could be said to relate to or to foreshadow the concept of professional autonomy, included the application of principles to concrete professional practice, described as a complex process requiring exercise of disciplined individual judgement"; and independence⁴⁰.

In the light of his analysis of the work of others, Millerson defined a profession as

*"a type of higher-grade, non-manual occupation, with both subjectively and objectively recognised occupational status, possessing a well-defined area of study or concern and providing a definite service, after advanced training and education."*⁴¹

Like Carr-Saunders and Wilson, Millerson does not explicitly refer to autonomy in his definition. Nonetheless, he does make the point that recognition of professional status by society can involve the "delegation of power and authority"⁴². Moreover, one or two of the later works based on a trait approach do make explicit reference to autonomy. An example is Etzioni's *The Semi-Professions and their Organisation*⁴³, published in 1969. The "semi-professions" examined by Etzioni and his colleagues are teaching, nursing and social work. With respect to professional autonomy, reference is made to having one's behaviour judged by colleague peers, not outsiders. In addition it is described as a derivative trait, based on mastery of a knowledge field and commitment to the ideal of service⁴⁴.

Most authorities on professions and professionalism from the 1970s onwards take issue with the earlier approach on a number of grounds.

First, the trait approach can be criticised because it is predicated on the assumption that there are “true” professions which possess certain characteristics and can thereby be differentiated from other occupational groups which do not. It therefore raises questions as to how many of the traits an occupation needs in order to be regarded as a profession and which of the traits, if any, are the most important. One consequence of this lack of clarity is the classification of a number of groups as quasi, semi, para or embryonic professions since they possess some of the traits but not others. In the case of pharmacy, such a position is reflected in the titles of Denzin and Mettlin's article - Incomplete Professionalization: The Case of Pharmacy⁴⁵ and Dingwall and Wilson's title - Is pharmacy really an incomplete profession?⁴⁶.

Second, the lists were usually drawn up in an arbitrary manner with little attempt to relate the traits by constructing a theory that linked them together.

Third, the approach may be regarded as being too deferential in the sense that it accepted the claims of professions regarding their ethical underpinning and the altruistic behaviour of practitioners at face value.

Fourth and most importantly, they ignored, to a significant extent, the dynamics of professionalism and failed to give due attention to the power struggle, which underlay the securing of professional status.

Thus, not surprisingly, in much of the more recent academic literature particular attention is given to the analysis of professional power. Two generic perspectives may be recognised:

A neo-Weberian perspective, from which professions are seen as operating primarily on the basis of self-interest mainly by controlling and protecting their market position through strategies of “closure”.

A Marxist perspective which focuses on the relationship between professions and the means of production.

It is in this context that for some academics the concept of professional autonomy has come to occupy centre stage in the analysis of professions and professionalism.

2.2 Securing Professional Autonomy

From both a neo-Weberian and Marxist perspective, the acquisition of autonomy is seen as one of the defining moments in the metamorphosis of an occupation into a profession. Indeed, for some, autonomy is regarded as the essence of what is meant by a profession. Freidson in his work, *Profession of Medicine; A Study of the Sociology of Applied Knowledge*, first published in 1970, argued that it is professional autonomy, that is the power of professions to define and to control their own work, which is the distinguishing characteristic of the professions. Moreover, this autonomy has to be secured through negotiation with the state. Because it is granted by the state professional autonomy is not absolute. In short:

“the state has ultimate sovereignty over all and grants conditional autonomy to some”⁴⁷

By linking the establishment and sustenance of professional autonomy with the state Friedson drew attention to the essentially political nature of this aspect of professionalism.

The granting of autonomy to professions, in the sense of freedom from the control of outsiders, is justified by three claims.

The first is that because there is such an unusual degree of skill and knowledge involved in professional work non-professionals are not equipped to evaluate or regulate it.

Second it is claimed that professionals are responsible - that they may be trusted to work conscientiously without supervision.

Third, the claim is that the profession itself may be trusted to undertake the proper regulatory action on those rare occasions when an individual does not perform the work competently or ethically.

Like Friedson, others writing about professions and professionalism in the early 1970s underlined the significance of autonomy. For example, Moore⁴⁸ described autonomy as:

“the ultimate value”

for professionals and:

“a critical component of the claim to professional standing”

and pointed out that professionals enjoy “autonomy restrained by responsibility” since in the use of their “exceptional knowledge” they proceed by their “own judgement and responsibility”. It is also of interest that he also argued that “employee status” might impair but not necessarily eliminate professional autonomy.

Writing over fifteen years later, Laffin⁴⁹ stated that

“The central and defining aim of a profession is the maximisation of its autonomy or freedom from control by others, both within the immediate work setting and in the institutionalised regulation of relations between the professionals and the consumers of their services.”

The securing of autonomy is not a simple process and generally involves a power struggle either with the state in order to obtain the right to self-government and a protected market position or with other occupational groups. Significantly, in analysing this many writers have used the health care arena in general and medicine in particular as their empirical frame of reference. Freidson, for example, focused on the medical profession.

As pointed out in many of these works, one of the key resources of the group seeking autonomy is expertise in a well defined field. Here the comment of Wilding⁵⁰ that:

“In part, the granting of autonomy, control of entry and other powers is the product of the feeling that political control of certain activities is undesirable, that such control should be separated from political authority and handed back to the experts.”

is apt.

For many occupational groups in the health care arena the pursuit of autonomy has invariably meant battles with the medical profession. Although qualified by Larkin,⁵¹ Friedson's comment that:

“To obtain the autonomy of a profession the para-medical occupation must control a fairly discrete area of work that can be separated from the main body of medicine and that can be practised without routine contact with or dependence on medicine”

is very relevant. Attempts to enlarge the area of work are bound to evoke comment from the medical profession⁵², in particular from general practitioners, the most affected group, and may need to be negotiated⁵³.

Another theme in the literature from the 1970s to the present is the tension between professional autonomy and bureaucratic or organisational norms.

2.3 Spheres of Autonomy

More recently as an integral part of their analysis, writers have increasingly distinguished between various spheres or arenas of professional autonomy, each of which could serve as the basis for empirical investigation. Potentially this could be useful within this research, in particular to inform the design of the research questions as the attempt to understand how the rather abstract concept of autonomy translates into work carried out by community pharmacists is taken forward. Examples of approaches are summarised together with comments regarding their application to the intended work:

Hall⁵⁴ considers a classification of professional autonomy in terms of structural or attitudinal attributes, and this forms the foundations for definitions used by many disciplines. Structural or work autonomy is the worker's freedom to make decisions based on the job requirements or constraints, this is discussed by Engel⁵⁵ and Batey and Lewis⁵⁶ in relation to nurses. Attitudinal autonomy on the other hand is defined by Hall as the belief that one is free to exercise judgement in decision making and relates to the way individuals feel and view the work that they undertake as professionals.

Hall's concept of structural or work autonomy may be very relevant to the community pharmacy practice situation where the professional tasks are undertaken within a number of constraints and professional decision making must take account of these. This concept of autonomy naturally invites investigation as to which constraints are most important for practising community pharmacists, in which ways is their autonomy limited and how does the practice situation affect the outcomes achieved. With regard to attitudinal autonomy this may be of great importance in the practice situation and could be explored in order to determine what influences affect practitioners beliefs that they are free to exercise their judgement in professional decision making. This could be considered from the perspective of the practice situation with a number relevant variables being explored to determine their effect upon professional decision making.

Within the community pharmacy workplace it may be pertinent ask firstly, "to what extent are the structural attributes of professional autonomy in opposition to the attitudinal attributes" and secondly, "how may these situations be resolved". Hall's classification, if valid, is therefore potentially very useful as it could both inform the structuring of research questions and inform approaches for the design of the research instrument to be used for empirical investigations into professional autonomy and community pharmacy.

Laffin⁵⁷ considers that professions have autonomy in three distinct senses: in the immediate work situation, in the ability to be self-regulating or self-

governing at the level of the profession and as a source of influence on the formation and implementation of government policy.

With regard to Laffin's classification the most relevant area with regard to this research is the autonomy that professions have in the immediate work situation. This is the area that will be explored and for community pharmacists this would normally be centred around their activities within or closely linked to the pharmacy. This focus upon the immediate work, or practice situation invites investigation as to how changes or variations in this situation affect professional autonomy for the community pharmacist. A number of factors in the work situation could be considered as being important for investigation and these could be selected with reference to work carried out in other professions. This approach informs both the generation of research questions, such as "which factors should be investigated in order to determine how they affect the exercise of professional autonomy" as well as instrument design.

Larkin⁵⁸ distinguishes between functional autonomy, that is the capacity to control the practice of a particular aspect of the professional role, and fundamental autonomy, that is the capacity to determine the overall boundaries and hierarchy of occupational competencies.

With regard to Larkin's classification this research will address aspects of functional autonomy ie, the control of particular aspects of practice. It is important to know which aspects of professional practice can be controlled by community pharmacists and seek explanations for variations, if found, between practitioners. This can clearly be seen as a fundamental research question with this programme of research.

Wilding⁵⁹, although using the language of professional power rather than autonomy, distinguishes between:

Power in policy making and administration. This seems to link with Larkin's concept of fundamental autonomy and Laffin's ideas about self regulation and policy making. It mainly represents aspects of professional power at levels removed from the workplace.

Power to define needs and problems. This is moving closer to the workplace but retains a link with fundamental autonomy in the definition of boundaries.

Power in resource allocation. This seems to link with functional autonomy, with autonomy in the workplace and with structural autonomy as discussed by Hall.

Power over people. This is very similar to the preceding aspect as regards autonomy.

Power to control the area of work. This links to the workplace, to functional autonomy and to structural autonomy

With regard to Wilding's work each aspect of the classification could potentially be a candidate for empirical investigation within this research. Although power is used rather than autonomy this classification appears to be applicable to the pharmacy practice situation where professional decision making may involve each of the areas detailed. Autonomy if it is to be fully expressed must have within it a component of power, or authority in order that a professional judgement may be implemented. This concept could lead to investigation of the degree of authority community pharmacists possess and how (and why) this may vary between practitioners. Authority in this context may be taken to represent when the professional acts "in authority" which is an important aspect of authority but not the only one. The aspect of authority represented by the professional being "an authority" may also be one that should be addressed within this research programme. This approach may therefore inform both the research questions and the instrument design.

Prechel and Gupman⁶⁰ at the level of the workplace distinguish between:

Responsibility autonomy, which they associate with "professional control over work activities and decisions" and "the capacity to act without interference or subjection to organisational regulations, or subordination to a member of the organisation with less expert knowledge of work activities or goals"; and *innovative autonomy*, which they associate with "professional freedom in the

workplace . . . to introduce and initiate work changes and/or establish alternative methods of treatment”.

It is likely that both forms of autonomy classified could usefully inform this research. Responsibility autonomy with respect to the control over the more routine aspects of the professional role of community pharmacists, for example dispensing, and innovative autonomy to explore their professional freedom to initiate new aspects of their role. Investigative approaches could seek to place community pharmacists in both routine and innovative situations and explore how professional autonomy was expressed.

These classifications of professional autonomy are useful in locating the area of interest of this research and focussing on those parts which are relevant to the professional autonomy of the community pharmacist within the practice situation. This is because they help understanding of professional autonomy, which is a complex abstract concept and provide insights into ways of breaking it down into fairly discrete aspects around which research questions may be framed. In addition they suggest a number of approaches for empirical investigation which should be useful in aiding the choice of research methodologies to be employed.

2.4 The Health Professions and Autonomy

Whilst the possession of professional autonomy is an important attribute for any profession it is not surprising that many authorities have looked at the health professions as a setting for investigative work. These professions seek high levels of professional autonomy and do so from a number of perspectives including that of the patient’s interest. This is something that should not be accepted at face value for example in the context of Weber’s⁶¹ perspective that professions may be seen as operating primarily on the basis of self-interest, mainly by controlling and protecting their market position. In this context it could be argued that high levels of autonomy are more in the interests of the professionals than of their clients. Nonetheless the health professions have

been conscious of this danger and have sought to advance rationales to justify the need for high levels of professional autonomy. They have pointed to the safeguards for clients conferred by the adherence to high ethical standards. These are very important in ensuring that professionals maintain high standards of personal and professional conduct. In addition ethics and ethical decision making are extremely relevant to this research as they pertain to the exercise of professional judgement. Griepp⁶² has made this connection in respect of the model of ethical decision making that she has developed for nurses wherein autonomy, beneficence, responsibility and accountability are placed within an ethical framework. In the case of the pharmacy profession the ethical framework is represented by the standards enshrined in the Code of Ethics⁶³. The first principle of which states that a pharmacist's prime concern must be for the welfare of the patient and other members of the public.

In their paper Prechel and Gupman explored professional autonomy with respect to a number of aspects, these included investigating whether doctors working as specialists have more autonomy than general physicians, whether bureaucratic structures enhance autonomy, whether profit seeking insurance corporations constrain autonomy and whether state agencies constrain autonomy.

Working with two groups of doctors; cancer specialists and general physicians they concluded that the specialists exhibited greater levels of innovative autonomy in carrying out their complex tasks. In this context it may be argued that the high level of autonomy possessed by these specialists was good for their patients as it enabled them to benefit from the complex procedures necessary for their treatment. However Prechel and Gupman also found that when the treatment for a condition is well established, autonomy was subject to constraints from the insurance corporations who have succeeded in establishing formal mechanisms of regulation⁶⁴. It is of interest that their research concluded that bureaucratic work settings either have no effect or slightly enhance autonomy whereas profit seeking corporations who fund the work of the physicians act as a consistent constraint.

A considerable body of work exists with respect to autonomy and the medical profession set within the professional dominance model which emerged in the 1970's. This regards doctors as members of an elite set of occupations who retain autonomy over their work. The possession of specialised knowledge is central to this autonomy⁶⁵ and this stress on the importance of individuals' knowledge is consistent with functional theories as advanced by Parsons⁶⁶ and others⁶⁷. These theories support the premise that professionals should be autonomous because their mastery of complex knowledge is effective in solving problems. Professional training is considered to instil the norms of professional ethics and service which ensure that professionals make decisions in the best interests of their client. Whilst it would be naïve to accept functional theories as advanced by Parsons without qualification, it is clear from the work of Prechel and Gupman that autonomy as possessed by the professional can be of great value to the patient, especially when innovative strategies and decision making are required. This is supported by recent work carried out in Sweden by Forsbeg et al⁶⁸ with physicians, which concluded that performance based reimbursement systems reduced professional autonomy and led to a lower quality of care for patients.

In the nursing literature professional autonomy is described as a phenomenon that involves affiliative relationships with clients and collegial relationships with others. The discretionary decision making which is crucial to autonomous practice is justified as being used to select the course of actions consistent with a client's needs⁶⁹. This line of reasoning is explored by Southon and Braithwaite⁷⁰ who suggest that professionalism be considered as primarily a task related phenomenon, the tasks concerned having characteristics of high levels of uncertainty and complexity. These characteristics, they argue, lead naturally to the key features that typify professionalism. In this context professional autonomy may be advanced as being of great value to the client served by the professional group as the exercising of professional judgement is key to managing the complex tasks presented.

Given the centrality of professional autonomy to both professional status and professional work, it might be assumed that this subject has been exposed to

extensive empirical investigation, searches of the health literature however refute this. One major deficiency is the absence of robust methods for measuring and quantifying professional autonomy. This has led to a number of indirect approaches such as the use of Walker and Avant's⁷¹ model of concept analysis by Wade⁷² to undertake an analysis of professional nurse autonomy. Wade found that educational level and personal qualities promoted professional nurse autonomy, findings which have been reported by other researchers. Pankratz and Pankratz⁷³, for example, have suggested a relationship between advanced education and professional nurse autonomy. Wood⁷⁴ et al looked at practice setting and reported higher levels of autonomy in public health nurses compared to hospital based ones. The instruments used for these explorations of professional nurse autonomy, which included Schutzenhofer's⁷⁵ Nursing Activity Scale and the Pankratz Nursing Attitude Scale, were specific for nursing and were not considered suitable for exploring professional autonomy in community pharmacy. Other work in the nursing literature from Dempster⁷⁶, Sabiston and Laschinger⁷⁷ and Boughn⁷⁸ was also reviewed and considered unsuitable as a basis for work with community pharmacists. This is because community pharmacists practise solely in a community setting, they practise in a retail setting, they are all graduates (pharmacy has been graduate entry since 1967) and the gender balance is very different from that encountered in nursing, in addition they are not supervised or directed to the same extent by doctors. It is also worth noting that the nursing scales use extremely nurse specific practice situations which would not have relevance to the community pharmacy workplace. An example of this being the construction of "demonstration cases" as described by Wade⁷⁹ in which, for example, a nurse is presented with a case which may involve the care of a child seriously injured in a road accident. In addition empirical referents described in the nursing literature have been criticised for "concurrently measuring interrelated variables associated with nurse autonomy and containing several ambiguous items"⁸⁰. Ballou⁸¹ comments that:

"although the literature is replete with studies that examine autonomy and nurses, methods and results are often inconsistent and inconclusive"

and goes on to say

“nursing commonly confuses autonomy with related concepts such as authority, accountability, power, professionalism and independence”

Because of these factors it was decided that the instruments used for the exploration of professional autonomy of nurses would not be suitable for use with community pharmacists.

2.5 Professional Autonomy and Pharmacy

Unlike in the nursing and medical literature there is very little in the pharmacy literature on the subject of professional autonomy, although the comments of Harding and Taylor⁸² referred to in the introduction indicate that work is clearly indicated. It is essential to address this gap as pharmacy lays claim to full professional status, and pharmacy practitioners undertake the types of discretionary decision making crucial to autonomous practice. Edmunds and Calnan⁸³ writing in *Social Science and Medicine* note that "in the United Kingdom pharmacy's autonomy remains quite limited in economic, political and clinical aspects". The classification they use being described by Elston⁸⁴ wherein professional autonomy is thought to exist when an occupation has control over its remuneration (economic autonomy); when it is in a position to influence policy decisions (political autonomy) and when it is able to make its own clinical judgements (clinical autonomy).

This research is concerned with community pharmacists and is centred upon an exploration of the autonomy possessed by individual practitioners, within their work setting. It is therefore closely aligned with the description of clinical autonomy given by Elston. This type or aspect of autonomy links most strongly with autonomy in the work situation as described by Laffin, with functional autonomy as described by Larkin, and with responsibility autonomy as described by Prechel and Gupman. For community pharmacists an important

aspect of this type of autonomy is the notion of self-direction in encounters with patients / clients. In this respect the professional autonomy of community pharmacists may have much in common with other clinical professional groupings like GPs, Dentists, Health Visitors, Midwives etc. However with pharmacists it is very much bound up with their dispensing and extended role⁸⁵ and can be said to embrace:

- The application of skills and knowledge acquired through the education and socialisation process, without close supervision.
- Making judgements in areas where answers are not clear cut.
- Managing the interface with clients.
- Interacting with members of other professions.

Autonomy also implies the freedom to make choices legitimised through the possession of superior expertise (ie, expert power) within an area of skill/knowledge. Indeed, choice and autonomy may be viewed as two sides of the same coin. However, neither is absolute. Individual practitioners make choices within a contextual framework, which impacts upon the autonomy they can exercise. The contextual framework for community pharmacists would undoubtedly include ethical and experiential dimensions.

2.6 Ethical Considerations

The behaviour of autonomous practitioners, like pharmacists, is very much influenced by their professional code of ethics. This is primarily designed to regulate relations between practitioners and clients. Since practitioners are usually in a more powerful position vis-à-vis clients the code is designed to protect the interests of the latter with respect to their safety and well-being and their equity of treatment. This inevitably limits the practitioner's freedom of action and reduces the choices that s/he can make. Thus, with codes of ethics

there is a greater degree of standardisation in the way that practitioners behave than might otherwise be the case.

The Code of Ethics for pharmacists is formalised by the Royal Pharmaceutical Society of Great Britain (RPSGB) and issued to every pharmacist twice a year in the publication: Medicines, Ethics and Practice. The code is reviewed frequently to ensure that it takes full account of practice developments. At the time the research was carried out – 1999/2000 the Code of Ethics comprised two parts: nine principles (Figure 2.1), supplemented by more detailed obligations. Together these set out the fundamental duties which apply to all pharmacists and, where appropriate, persons lawfully conducting a retail pharmacy business. In addition the obligations contained in the Code of Ethics are further supplemented by detailed guidance, which is intended to help in the interpretation of the Code. The Code of Ethics is intended to set the standard for the professional conduct of all pharmacists, and therefore the nine principles are necessarily to be borne in mind at all times.

Figure 2.1. The nine principles of the Code of Ethics

1. A pharmacist's prime concern must be for the welfare of the patient and other members of the public.
2. A pharmacist must uphold the honour and dignity of the profession and not engage in any activity which may bring the profession into disrepute.
3. A pharmacist must at all times have regard to the laws and regulations applicable to pharmaceutical practice and maintain a high standard of professional conduct. A pharmacist must avoid any act or omission which would impair confidence in the pharmaceutical profession. When a pharmaceutical service is provided, a pharmacist must ensure that it is efficient.
4. A pharmacist must respect the confidentiality of information acquired in the course of professional practice relating to a patient and the patient's family. Such information must not be disclosed to anyone without the consent of the patient or appropriate guardian unless the interest of the patient or the public requires such disclosure.

5. A pharmacist must keep abreast of the progress of pharmaceutical knowledge in order to maintain a high standard of professional competence relative to his sphere of activity.
6. A pharmacist must neither agree to practise under any conditions which compromise professional independence or judgement nor impose such conditions on other pharmacists.
7. A pharmacist or pharmacy owner should, in the public interest, provide information about available professional services. Publicity must not claim or imply any superiority over the professional services provided by other pharmacists or pharmacies, must be dignified and must not bring the profession into disrepute.
8. A pharmacist offering services directly to the public must do so in premises which reflect the professional character of pharmacy.
9. A pharmacist must at all times endeavour to co-operate with professional colleagues and members of other health professions so that patients and the public may benefit.

Although the Code of Ethics may be regarded as a constraint upon absolute choice and autonomy it is also very important to recognise its role in being a support for pharmacists. In particular where they wish to exercise their professional judgement on behalf of a patient and meet resistance from another constraint. It could therefore be argued that the Code assists pharmacists in the exercise of some aspects of their professional autonomy.

At the time of writing up, the Code of Ethics has been fully revised and the new version, which has been out to consultation with the membership was adopted at the RPSGB annual general meeting in May 2001. The new code replaces the rule book approach as detailed above with a document which identifies pharmacists' key responsibilities of beneficence, competence and integrity. The aim is to empower pharmacists to develop their own practice in accordance with the key responsibilities. It is clear however that this is not in any sense a dilution of the ethical constraints under which pharmacists practise, it is more a change in emphasis. By obliging each practitioner to consider every facet of their practice against the framework of key responsibilities, it ensures that the constraints of the Code of Ethics are always in the practitioner's mind.

2.7 Experiential Considerations

A further consideration can be linked to a professional's "life cycle". In the early stages of a professional's career choices may be more likely to be limited due to a lack of confidence and limited experience. In other words, s/he may be more likely to "play safe". Raelin⁸⁶ discusses this in terms of "establishing a niche". This is linked, to the fact that many situations are being encountered for the first time. With an increase in experience a growing self-confidence may offer the potential to choose from a wider range of options in a given situation. It is however possible that the early stages of the professional's "life cycle" may be linked to strong identification with professional issues, following on from the embedding of professional values during the lengthy training period. At this stage practitioners may opt for "idealistic" solutions, whereas at a later stage they may identify more strongly with their organisation and opt for more pragmatic approaches. This is very much in keeping with the view of Raelin⁸⁷ who comments that in the initial stage of their careers

"young professionals tend to be idealistic about their profession"

Arguably all of these considerations impact on the scope of an individual practitioner's autonomy and this research will attempt to explore how these affect its expression.

2.8 Professional Autonomy and the Contractor Model

The contractor model for community pharmacy originated from the 1911 National Insurance Act and was updated at the inception of the NHS. One of the justifications for choosing this model, where the professional contracts to provide services, rather than be an employee, is that it has traditionally been seen as a way of supporting the clinical autonomy of practitioners. Clinical autonomy may be viewed as an aspect of professional autonomy that relates to the process whereby the professional exercises his or her clinical expertise on behalf of patients or clients. Although narrower in scope than professional

autonomy it is extremely relevant to the context of community pharmacy practice and to this research.

If, however, this justification for the rationale of the contractor model is accepted it raises the question of what, if anything, supports the clinical autonomy of pharmacists who are not contractors, and indeed members of other family healthcare professions who are employees of contractors. This might be an interesting, albeit academic, question to pose if the contractor model was operating as a homogeneous model. However the changes in the community pharmacy workforce⁸⁸ mean that the protective effect on clinical autonomy is only enjoyed by a small minority of community pharmacy practitioners. Therefore, there must be a concern that the contractor model as currently operating in community pharmacy may not be delivering the benefits to service users that come with practitioners able to exercise high levels of clinical autonomy.

It is therefore important to explore to what extent, if any, contractor status confers support for professional autonomy with respect to community pharmacists and to investigate the relationships between the other occupational groupings of community pharmacists and professional autonomy.

2.9 Professional Autonomy in the Workplace

At heart this research is an exploration of professional autonomy in the practice setting of community pharmacists and therefore the process of conceptualising the way in which the various agendas and other forces operate is very important.

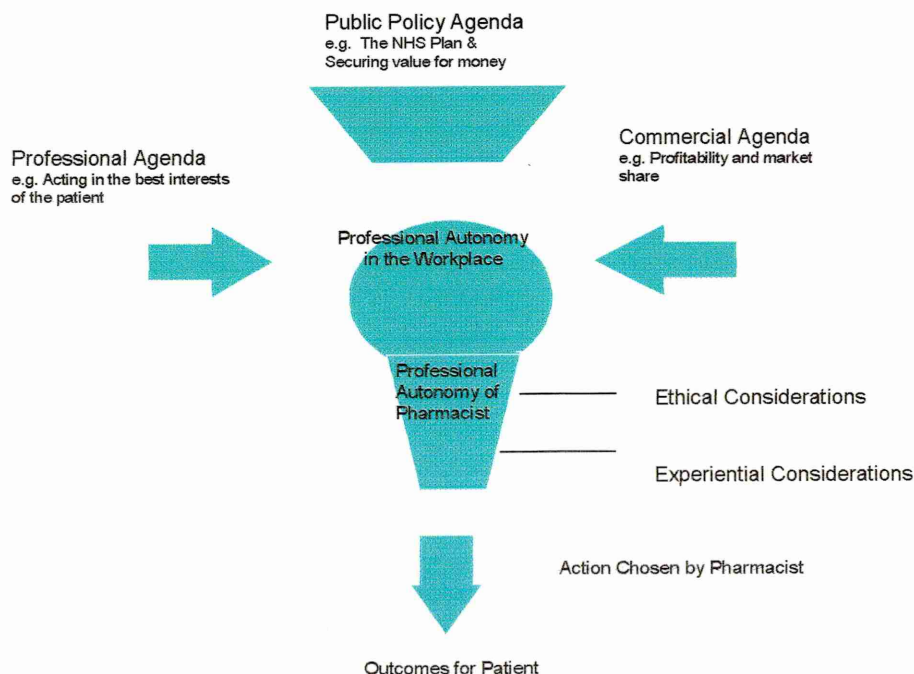
Professional autonomy is linked very closely to the professional agenda, from this perspective the autonomy sought is in the work situation, in the ability to be self-regulating at the level of the profession and as influence on the formation and implementation of government policy.

From the perspective of the commercial agenda professional autonomy may be viewed differently and may resemble Hall's definition of structural or work autonomy⁸⁹, that is, the worker's freedom to make decisions based on the job requirements or constraints. Here the **professional's freedom to exercise professional judgement has to be reconciled with other requirements**, for example in a community pharmacy setting, the impact of the intended action on profitability may need to be considered.

From the perspective of the public policy agenda there is an **expectation that pharmacists will be able to provide pharmaceutical services of high quality in a variety of practice settings**. This has to be inferred from the lack of any action in response to the very large changes in the way CPS are delivered which have been highlighted in Chapter one.

As has been stated throughout, this research is concerned with the individual practitioner's autonomy in their practice setting and from the exploration undertaken the practice setting may be conceptualised in terms of the model below. (Figure 2.2). This model has been developed from an earlier version which appeared in a poster at the 1999 British Pharmaceutical Conference⁹⁰

Figure 2.2 : Model of community pharmacist professional autonomy



This model depicts the three policy agendas that impact upon the community pharmacy practice situation and contribute to the professional autonomy in the workplace, and the ethical and experiential considerations, which are individual to the practitioner. This is a representation of the major factors that need to be resolved when a community pharmacist undertakes professional decision making.

The model makes explicit the effect that the policy agendas have upon the operation of professional autonomy in the practice setting. The public policy agenda is shown as an almost over-arching entity. It is depicted as not as an arrow, which would indicate focus and direction but rather as a blunt instrument. Nonetheless this agenda impacts upon professional decision making and autonomy to a considerable degree. The commercial and professional policy agendas are shown as more focussed entities and are depicted in opposition, this accords with the situation encountered in many aspects of community pharmacy practice. Both of these policy agendas impact powerfully upon professional autonomy in the workplace and together with the public policy agenda they exert considerable influence on the professional autonomy available community pharmacists.

Ethical and experiential considerations are depicted as more personal to the individual practitioner and these too are very important in contributing to the exercise of professional autonomy. It is likely that there are a number of other considerations which also form part of this context and further work in this area should seek to elucidate these.

The model illustrates the crucial importance of professional autonomy as possessed by the individual practitioner in their practice setting. This is because it illustrates that patients/clients presenting with a pharmaceutical problem may receive varying outcomes, depending upon the individual practitioner and their degree of professional autonomy.

In this context it is very important for community pharmacy practice to understand how professional autonomy operates in the practice environment and the factors which affect this.

It should be noted that typically most community pharmacies have only one pharmacist on duty and although they have assistance from support staff, (who do possess professional qualifications), they are required, in almost all cases, to handle the professional decisions on their own. This contrasts with a great deal of professional practice where a number of professionals are involved in decision making. Thus in this practice setting the action chosen by the community pharmacist translates into the patient's experience and to their outcomes - good or bad.

This discussion of professional autonomy has sought to locate it within the practice setting of community pharmacy and consider some of the forces and constraints which impact upon the individual community pharmacist as they deal with their patients/clients. It is clear that professional autonomy is extremely important for community pharmacists as they seek to apply their skills and knowledge. It is important for the profession of pharmacy as it is crucial to the retention of professional status. It is important for the Government as they need to know that pharmacists are able to exercise their professional judgements and make use of their complex and expensive training in carrying out their tasks. However it is potentially of the greatest importance for the patients/clients of community pharmacists as they rely upon the pharmacist being able to use their skills and knowledge to determine what is in their best interests, and act accordingly.

It is therefore of considerable interest to a number of stakeholders to understand how professional autonomy operates in the community pharmacy practice setting and to what degree it varies between practitioners. If significant variation does occur it is important to identify and understand the factors which give rise to it. This is vital as public and professional policy initiatives are predicated on the assumption that every community pharmacist is in a similar position regarding the autonomy at his/her disposal. If this assumption is false

then public and professional policy makers need to take note of this and consider how the public's best interests may be served.

Chapter 3: Aims

It is clear from the exploration undertaken in the previous section that professional autonomy is a complex issue. At its simplest it may be seen as the freedom to exercise professional knowledge or judgement. As has been elucidated this is not an absolute right and is subject to a number of constraints, some of which relate to professional boundaries, some to individual traits of the professional and some that are related to the practice environment. The latter two are interwoven in the case of community pharmacy, and potentially other professional groupings, with the interplay of the forces of the three policy agendas.

The area of research undertaken within this project is concerned with the variation in the level of professional autonomy that a practitioner perceives they can exercise, and the attempted explanation of that variation.

In this Chapter the research questions will be discussed and a number of hypotheses derived. Following on from this a number of comments will be made concerning the implications of any findings for public, professional and commercial policy.

3.1 Research Questions

Can the ability of community pharmacists to exercise professional autonomy in the workplace be measured?

This is an absolutely fundamental research question, as unless there is a valid method of assessing a community pharmacist's ability to exercise professional autonomy, there is no means to investigate how this might vary with regard to the factors in the practice situation which are considered likely to impact upon it. Therefore it is necessary that the dependent variable, professional autonomy should be quantified in an acceptable fashion. One approach would be to use a

validated instrument for the measurement of professional autonomy in community pharmacy. Searches of the literature however have failed to locate a suitable instrument. Another possibility would have been the adaptation of an existing instrument for measuring professional autonomy in another professional group. Very few candidates for this role are available and they tend to be discipline specific like the Nursing Activity Scale used by Schutzenhofer and the questionnaire devised by Engle⁹¹ for use with physicians. The limitations of existing instruments (as discussed p.33) led to the decision to embark upon the design of an instrument specifically for the measurement of professional autonomy in community pharmacists.

In order to be of use the instrument would need to be able to give a reliable and accurate measure of the extent to which individual community pharmacists are able to exercise professional autonomy in the workplace. For this reason the instrument should be closely grounded in realistic practice situations which community pharmacists would find familiar, and be relevant to professional autonomy. For this reason it seems logical that the practising community pharmacists should be involved in the design and development. For the instrument to be of use it would need to be accurately assess the degree to which professional autonomy was capable of being exercised. Therefore the model of professional autonomy developed in Chapter Two should be revisited and examined, in order to ascertain whether there are any particular aspects of the exercise of professional autonomy in the workplace, that lend themselves to measurement. If such an aspect were to be identified an instrument could be designed and tested in order to determine whether it could assess professional autonomy in the desired fashion. The hypothesis to be tested may therefore be framed as follows:

An instrument can be designed and tested which can assess the degree to which community pharmacists can express professional autonomy in the workplace.

Do categories of community pharmacists vary significantly in their ability to exercise professional autonomy in the workplace?

Community pharmacists must undertake a lengthy and difficult training process in order to register and practice. In addition they must adhere to a comprehensive code of ethics, whose central tenet is that the welfare of the patient is paramount. Armed with these attributes they are ready to exercise their professional judgements on behalf of their patients/clients in the practice setting.

The ability of community pharmacists to exercise their professional judgements in this way is dependent on how much professional autonomy they possess. If their professional autonomy is constrained they may not be able to render a full professional service to their patients/clients and this may lead to unsatisfactory outcomes. As community pharmacy is a healthcare profession, the consequences of such a situation arising may be very serious indeed for the patient/client.

The provision of CPS in England is based upon the tacit assumption that community pharmacists, irrespective of their practice settings, occupational status, and a range of other variables, can provide fully professional services in which they can exercise professional autonomy in the interests of their patients/clients. However this assumption has not been tested and may prove to be ill founded when made the subject of empirical investigation. It may prove to be the case that some or all of the variables to be identified constrain professional autonomy to a degree which renders the service provided unacceptable to the profession and the public interest.

It is therefore important to determine whether variation in the exercise of professional autonomy varies within the community pharmacy workforce. The hypothesis to be tested may therefore be framed as follows:

There is significant variation between categories of practising community pharmacists with respect to their exercise of professional autonomy.

What are the key influences on variation in the expression of professional autonomy in community pharmacy?

At present it is not known what factors may affect the amount of professional autonomy that a community pharmacist possesses because there is no body of published research to refer to. There is literature on the medical and nursing professions and these indicate that practitioners' professional autonomy varies in accordance with a number of factors including educational attainment, specialisation and practice setting. For this research a number of factors will be put forward for possible investigation, these are:

3.1.1 Educational attainment: a number of studies indicate that having higher levels of educational attainment compared to peers is indicative of high levels of professional autonomy. With respect to community pharmacy this could be significant however its importance may be mitigated by the generalist nature of practice in the community setting. Higher degrees are more likely to be possessed by pharmacists who have chosen to practise in specialist fields such as academia, research and hospital clinical practice. Within the practising community pharmacist workforce the overwhelming majority will possess a Bachelors degree in pharmacy, as the profession has been graduate entry since 1967. In recent years a number of the academic institutions have started to offer postgraduate studies in community pharmacy, leading to Diploma and Masters qualifications which offers the prospect of investigating this factor in the future, when a larger proportion of the workforce might be expected to possess such qualifications. For this research it was considered that educational attainment within the community pharmacy workforce would not be investigated.

3.1.2 Experience: this may be significant but must be treated with caution. The nursing literature reports a non-significant relationship between autonomy and years of experience^{92, 93} but does suggest a link with holding senior management level posts⁹⁴. Whilst years of experience can be investigated for community pharmacists, the holding of senior management level posts poses more of a problem. This is again due to the generalist nature of practice in the community setting and the absence of a career path within community pharmacy. Pharmacists seeking high-level management positions must leave community practice and crucially the patient/pharmacist interface in order to pursue these goals. Nonetheless as experiential considerations have been identified as potentially impacting upon the exercise of professional autonomy this factor should be investigated in order that its impact may be assessed.

3.1.3 Location of the pharmacy: community pharmacists may practise within pharmacies situated in a range of settings. These may include, being co-located with a GP surgery, within a supermarket, in a town centre (high street), within a suburban shopping parade or in a rural area. Potentially these differing practice situations may exert an effect upon the exercise of professional autonomy by the pharmacist and therefore this factor should be investigated so that its impact may be assessed.

3.1.4 Organisational size: community pharmacists practise within commercial organisations of differing size. These vary from a single independent outlet at one extreme in which the single pharmacy comprises the entire organisation, to multiples with more than a thousand branches. Potentially these differing practice situations, encompassing a range of organisational cultures, may exert an effect upon the exercise of professional autonomy by the pharmacist and therefore this factor should be investigated so that its impact may be assessed.

3.1.5 Occupational status: community pharmacists may be:

Independent contractors, these are pharmacists who own their own practice, hold their own contract for the provision of NHS services and are self-employed.

Employee pharmacists, these are employed in organisations of varying sizes and may typically be a branch manager responsible for the service in a pharmacy owned by a company.

Locum pharmacists, these are self-employed pharmacists carrying out engagements of varying lengths on behalf of an owner or company. Locums may work for a variety of organisations.

It is important to acknowledge at the outset that the three sub-groupings identified are not absolutely distinct, that is to say employment patterns in community pharmacy allow for a number of possible combinations. Thus an individual may be employed by one organisation on a part-time basis eg, three days a week, and work as a locum for the other two. It is therefore very important that the design of the research methodology takes this into account as far as is possible.

The effect of occupational status may be very significant as the model of professional autonomy devised within the last section contains a range of forces and constraints that could potentially impact differentially upon each of the sub-groups. This factor should therefore be investigated in order to determine to what extent, if any, do pharmacists with differing occupational status vary in their exercise of professional autonomy.

3.1.6 Gender: the community pharmacy workforce has seen the proportion of females rise substantially in recent years⁹⁵, and over 60% of pharmacy graduates were female in every year but one, between 1989 and 1998.⁹⁶ We do not know whether there are gender differences with respect to the exercise of professional autonomy. However as the professional workforce is becoming

increasingly feminised it is important to ascertain this. The nursing literature is not helpful regarding this dimension because the overwhelming

preponderance of females in nursing leads to small male sample groups and most researchers are not able to report on this aspect with authority. This factor should therefore be investigated in order to determine to what extent, if any, do pharmacists of different gender vary in their exercise of professional autonomy.

3.1.7 Full or part-time working: community pharmacy represents a professional occupation, where, in terms of salary, work conditions and status, part-timers might be relatively less disadvantaged than is the case in many areas of the labour market. It is therefore not surprising that research into part-time working by community pharmacists has revealed that they comprise a significant proportion of the workforce. Symonds⁹⁷ who carried out a postal survey of 975 pharmacists in the Midlands reported that 31% of respondents worked on a part-time basis. In addition she also reported that part-time working was slightly more than twice as common for female pharmacists as it was for males. It is therefore clear that part-time working is extremely important to the functioning of community pharmacy and that part-time pharmacists comprise a significant proportion of the community pharmacy workforce. It is important to recognise that part-time work patterns encompass a number of modes. For example, an individual may be a part-time employee or work as a locum in a part-time capacity. In addition, combinations of both modes are entirely possible. As with occupational status it is important that the design of the research methodology takes this into account as far as is possible. The analysis of any results obtained must also be informed by the considerable difficulties presented by the complex working patterns found in community pharmacy. Notwithstanding these difficulties, it is clearly important to determine whether part-time pharmacists differ from their full-time colleagues in the exercise of professional autonomy.

All of the above independent variables should be examined in order to determine their effect upon the expression of professional autonomy by community pharmacists. This means in effect that within the methodology of the research, the design must incorporate the capture of data relating to each of these variables for each community pharmacist within the study. This will enable analysis to be carried out to test out which variables, if any, affect the exercise of professional autonomy. The hypotheses to be tested may be summarised as follows:

An instrument can be designed and tested which can assess the degree to which community pharmacists can express professional autonomy in the workplace.

There is significant variation between categories of practising community pharmacists with respect to their exercise of professional autonomy.

The exercise of professional autonomy by practising community pharmacists is significantly affected by their experience, as evidenced by time on the Pharmaceutical Register

The exercise of professional autonomy by practising community pharmacists is significantly affected by the location of the pharmacy premises from which services are provided

The exercise of professional autonomy by practising community pharmacists is significantly affected by the size of the organisation through which services are provided

The exercise of professional autonomy by practising community pharmacists is significantly affected by the occupational status of the pharmacist

The exercise of professional autonomy by practising community pharmacists is significantly affected by the gender of the pharmacist

The exercise of professional autonomy by practising community pharmacists is significantly affected by the work pattern of the pharmacist ie whether they work full or part-time

3.2 Potential Implications for Policy

If significant differences in the expression of professional autonomy by community pharmacists were to be found there could potentially be major implications for CPS. This would be more likely if the variations found were associated with the independent variables under consideration. Some examples may serve to illustrate this:

Experience: if for example it was found that professional autonomy was significantly lower for recently registered pharmacists, to such an extent that patient care suffered, public and professional policy might seek models of practice whereby such pharmacists were supported by more experienced colleagues.

Location: if for example pharmacists working in pharmacies co-located with GP practices were found to possess high levels of professional autonomy which impacted positively upon patient care, public policy might seek to support the development of more such sites.

Occupational status: if for example it could be shown that independent contractors, by virtue of their ability to give expression to a higher level of professional autonomy were best able to act in the clients interest then professional policy ought to support this form of practice. Public policy should also give consideration to being supportive should this be the case, as

obtaining better outcomes for patients is key to health policy. However public policy would have to re-evaluate the strategies which have led to the growth of the multiples, if support was to be offered to independent contractors. Indeed the financial and legislative framework that favours multiples would need to be overhauled, if changes to support independents were to be implemented.

Continuing with this scenario the implications for commercial policy would be profound as multiples could be faced with significant changes in their operating environment. In this situation they would need to re-examine the constraints upon the professional autonomy of their employed pharmacists. Arguably their best hope of avoiding adverse financial consequences may lie in re-professionalising their pharmacists so that they will be able to undertake work of high value to the organisation.

If however the research was to conclude that that employee pharmacists of large organisations were best able to act with high levels of professional autonomy for the benefit of their clients a different set of implications would result. In this case professional policy may need to question why independent contractors appear to be more constrained. Public policy would then not be expected to constrain the growth of the multiples, and would be unlikely to offer significant support to the independents.

If the conclusion of the research however was that no relationship existed between professional autonomy and organisational size or occupational status it might be seen as a justification for the present situation of allowing different models of practice to evolve. In this situation professional policy need not be concerned with de-professionalisation of the workforce, public policy need not be concerned with the increasing dominance of the multiples and commercial policy could be fine-tuned to ensure continued growth and profitability.

This outcome would have the fewest implications for policy, as it would in effect suggest that active intervention was not necessary.

It is clearly very important to determine how, if at all, aspects of the practice setting affect professional autonomy. Central to that is to what extent the

individual practitioner, in a variety of settings, has control over his or her own professional work.

Chapter 4: Methods

4.1 Selection of Methodology

The task of developing a research instrument to measure variations in the professional autonomy of different groupings of community pharmacists proved to be a considerable challenge. As has been indicated in Chapter Two searches of the pharmacy literature failed to locate a suitable instrument and the wider healthcare literature yielded examples that were considered to be too discipline specific. Consequently, the decision was taken to attempt to develop an instrument from scratch.

The research questions posed within this PhD relate to the measurement of professional autonomy with respect to various groupings and sub-groupings of community pharmacists. Therefore, the methodology chosen would need to:

- Be capable of enabling practising community pharmacists to indicate their level of perceived professional autonomy.
- Be capable of being applied to sufficient numbers of community pharmacists so that each of the groupings and sub-groupings was adequately represented.
- Be capable of rigorous quantitative analysis.

The challenge of designing and developing a suitable instrument for exploring variations in professional autonomy was considered initially to be one of gathering information about practice situations in which professional autonomy is an issue. Research methods texts such as *Qualitative Research in Health Care*⁹⁷ were extremely useful in offering an overview of the available qualitative methodologies which were considered necessary for the initial phases of the design of the instrument. A number of qualitative methodologies might have been suitable including face to face interviewing, participant observation and focus groups and a great deal of consideration was given to the determination of the most suitable methodology. The best candidate for this task was

considered to be the use of a focus group. Focus groups have a long history in market research⁹⁸, and more recently their use in medical research⁹⁹ has been discussed by Powell et al who define a focus group as:

“a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research”¹⁰⁰.

The use of focus groups in pharmacy research has been reviewed by Hassell and Hibbert¹⁰¹ who comment:

“Although infrequently used in pharmacy practice research, focus groups have many potential applications which may be relevant to service development”

Focus groups can be used to help to explore or generate hypotheses and develop questions or concepts for questionnaires and interview guides^{102, 103}.

In these respects therefore employing a focus group methodology seemed appropriate, also of considerable importance was the need to gather difficult-to-obtain information from a range of practitioners whose time is in high demand. Focus group methodology has been advocated for use in this situation and Berg¹⁰⁴ makes exactly this point, and suggests that the focus group may be used as a stand-alone means of information collection, or as an additional line of action. The place of this type of methodology in health research has been outlined by Kitzinger¹⁰⁵ writing in the British Medical Journal and Barbour¹⁰⁶ in Family Practice. In addition the application of the methodology for researchers has been described by Kreuger.¹⁰⁷ Use of a focus group consisting of community pharmacy practitioners was also consistent with the declared aim of producing an instrument that was specific and appropriate for use with community pharmacists.

A further point in favour of adopting a focus group methodology rather than a technique such as face to face interviewing of community pharmacists was the attraction of observing the interaction between group members. As Berg points out “ traditional interviewing approaches sacrifice the ability to observe

interaction for greater amounts of detail on various attitudes, opinions and experiences". These facets were considered extremely important and needed to be captured for good instrument design. Focus group methodology was also considered to be superior in this instance to participant observation as a technique. This is in accordance with Morgan's ¹⁰⁸ suggestion that focus groups are a useful when investigating research areas which do not have dense sets of observations readily available. In addition, from a practical perspective it was considered a time and cost effective methodology.

It was therefore decided that a focus group methodology could be a highly appropriate way forward and that it would be employed in order to attempt to develop a suitable instrument.

4.2 First Meeting - Formation of the Focus Group

The composition of the focus group was extremely important as it was considered that it would be more likely to succeed if pharmacists from a variety of practice backgrounds, including independent contractors, employees of large and small companies and locums could participate. This would enable the focus group to benefit from a wide spectrum of experience in professional autonomy.

The size of group to be formed was considered and MacIntosh's recommendation of an optimum size of six to ten people ¹⁰⁹ was taken into account.

Making use of local networks such as the Sheffield Pharmacy Practice Research Network (SPPRN), the Centre for Pharmacy Postgraduate Education (CPPE), the Local Pharmaceutical Committee (LPC) and the Sheffield branch of the RPSGB a focus group of 8 practitioners was formed which fitted the criteria. The group had its first meeting in November 1997, and was facilitated by the researcher. Members were invited to take part in a "brainstorming" session on professional autonomy. The discussion was audio-taped for future analysis.

It soon became evident that focus group members were not familiar with the terminology of the subject area and that the concept of professional autonomy, particularly in the context of designing a research instrument, was not well understood. This was not an unexpected discovery but did serve to illustrate that practitioners dealing with issues of professional autonomy on a day to day basis were not necessarily aware of many of the dimensions of the issue. Thus, during the first part of the meeting attention was given to a number of extremely relevant questions and issues raised by the participants, such as:

“Is it (ie professional autonomy) what pharmacists are allowed to do?”

“Is it the same as professional judgement?”

“If you are a professional then surely you are autonomous”

The discussions, interactions and sharing of information and experiences which took place between the participants facilitated considerable understanding of autonomy and from the researcher's perspective, justified the selection of a focus group approach.

As the focus group members developed their understanding of professional autonomy it was made clear that the purpose of the research was to measure the amount of professional autonomy possessed by an individual practitioner, as opposed to that exercised by the professional body the RSPGB in representing the interests of, and regulating, the pharmacy profession. Thus, the focus was on the ability, or otherwise, of community pharmacists to exercise professional autonomy in the care and treatment of their patients.

4.3 First Meeting - Developing the Methodology

The practitioners who formed the focus group encompassed a great wealth of experience in dealing with, and caring for their patients. In many interactions they would have used the professional autonomy available to them to try and

ensure the best outcomes for these patients. It was therefore considered essential to capture these experiences and explore the scope for exercising professional autonomy that were presented by them. Considerable discussion took place within the focus group about this might be achieved and it was agreed that practice situations provided a suitable frame of reference for gaining an understanding of professional autonomy. The next step was to discuss a number of practice situations that members of the focus group had experienced which were considered to involve the exercise of professional autonomy. As these were discussed it became clear that the events described by the group members could be described as incidents, short stories or scenarios. This led to a discussion of the possibility of using such incidents as part of a research instrument and it was agreed that short descriptions of situations that could occur in a community pharmacy could in fact be suitable. It was decided therefore to attempt to produce a number of practice based situations or scenarios which members of the focus group had experience of and which would involve the exercise of professional autonomy. The use of scenarios as a research methodology is not common in the biomedical literature although James et al¹¹⁰ used a scenario methodology in research on clinical decision making and Amyx et al¹¹¹ used scenarios in researching the freedom of patients to choose a physician. Scenarios are encountered more frequently in the management literature, often in relation to planning and decision making, where outputs of a quantitative nature are sought.

This intention within this research was that the results obtained should be capable of quantitative analysis therefore the scenarios would be scripted so that they involved the pharmacist taking action dependent upon the scope of their perceived individual professional autonomy. This response would then be located within a range of possible responses to indicate the degree of professional autonomy. Thus the methodology embarked upon had in essence two components:

- (i) A number of scenarios embodying situations faced by community pharmacists in which there is scope to exercise autonomy, and:

- (ii) A range of possible responses representing gradations of autonomy.

4.4 First Meeting - Developing the Scenarios

Having discussed the use of practice based scenarios with the group, clarified the meaning of key terms and checked understanding of the process, it was decided to proceed by taking one situation for the group to consider from the perspective of their current pharmacy practice situation.

The situation was one in which they had been asked by a researcher to take part in a practice research project that was being carried out with the intention of improving practice and patient care.

The members of the group were asked to discuss what they would do should this situation occur in their practice setting. In discussion a wide variety in possible reactions and responses emerged, reflecting varying degrees of professional autonomy. These included:

"It's up to me what I do, it doesn't concern anyone else"

"I'd have to ask permission, but I'm sure it would be OK"

"I'm a professional, being able to exercise my judgement is part of that"

"As a locum it's not my business, it would depend on the owner, some would probably agree but I can think of some who wouldn't"

Members of the group were then asked to capture all the possible responses to the scenario from the perspective of what individual practitioners might do if they considered the project worthwhile and wanted to accede to the researcher's request. After a substantial discussion 6 responses were identified. They ranged from (1) complete autonomy to (6) very low autonomy, as follows:

1. Agree to take part in the project;
2. Agree to take part in the project, but need to justify the decision to those in authority;
3. Seek permission from those in authority to take part in the project, with the expectation that it would be granted;
4. Seek permission from those in authority to take part in the project, with the expectation that the request would carry some weight in the final decision;
5. Seek permission from those in authority to take part in the project, with the expectation that the decision would be made with little regard to the request; and
6. Seek permission from those in authority to take part in the project, with the expectation that no account would be taken of the request.

The responses might be conceptualised as the rungs of a ladder, although the distances between them are not necessarily the same.

Having developed these responses, members were asked for their views on whether or not they might be used in conjunction with other scenarios. It was generally agreed that this would be possible. However, the wording of responses had to attempt to capture genuine differences in the degree of autonomy. Moreover, it was felt that they needed to be standardised for each scenario. A further meeting was arranged for the purpose of generating ideas for additional scenarios and for the standard responses, and the group members were asked to note and reflect upon situations they encountered in their practice that might serve as the basis of scenarios.

4.5 Second Meeting - Developing the Scenarios

After the first meeting the most immediate task was to listen to the tapes made and ensure that all of the relevant points had been noted. It was very clear from repeated listening that significant progress had been made at the initial meeting and that the use of practice scenarios to elucidate an indication of the scope of an individual's professional autonomy was worth pursuing.

As agreed at the first meeting the group members and the facilitator noted any situation that arose in pharmacy practice which contained a significant degree of professional autonomy. By April a number of situations had been identified which looked promising for the development of scenarios and a second meeting was convened of the focus group. This comprised the same membership as for the initial meeting and once again the meeting was audio-taped and facilitated.

4.6 Measuring Autonomy

It was clear that the focus group members had given considerable thought to the subject of professional autonomy and a discussion took place about the attempt to measure it. As had been made clear at the earlier meeting the measurement was to be of an individual practitioner's degree of professional autonomy, which was represented by their ability to exercise professional autonomy within the workplace. This was envisaged as a process that might typically begin with an interaction in a clinical setting. During this interaction a critical incident occurs eg, the patient seeks assistance from the pharmacist on a pharmaceutical matter. The pharmacist, who is an authority in this area uses his or her professional expertise to arrive at a conclusion as to what is in the patient's best interests. This is the first phase in the exercise of professional autonomy and it is a necessary step that draws upon the specialised training that pharmacists undergo in order to perform this type of complex task. At the end of this phase the pharmacist has decided on the patient's requirements and established a position, or stance. The next phase in professional autonomy is the translation of this position or stance into a response by the pharmacist that

enables the patient's best interests to be served. In order to successfully complete the second phase the pharmacist must perceive that they have the authority to take the action required to translate the stance decided upon into the response the patient needs. The whole of this process constitutes professional autonomy in the clinical setting and it is extremely important to understand that if any part of the process is constrained the outcomes for patients will be different.

Following these discussions a revised model of professional autonomy in the workplace was constructed. This is shown below as Figure 4.1

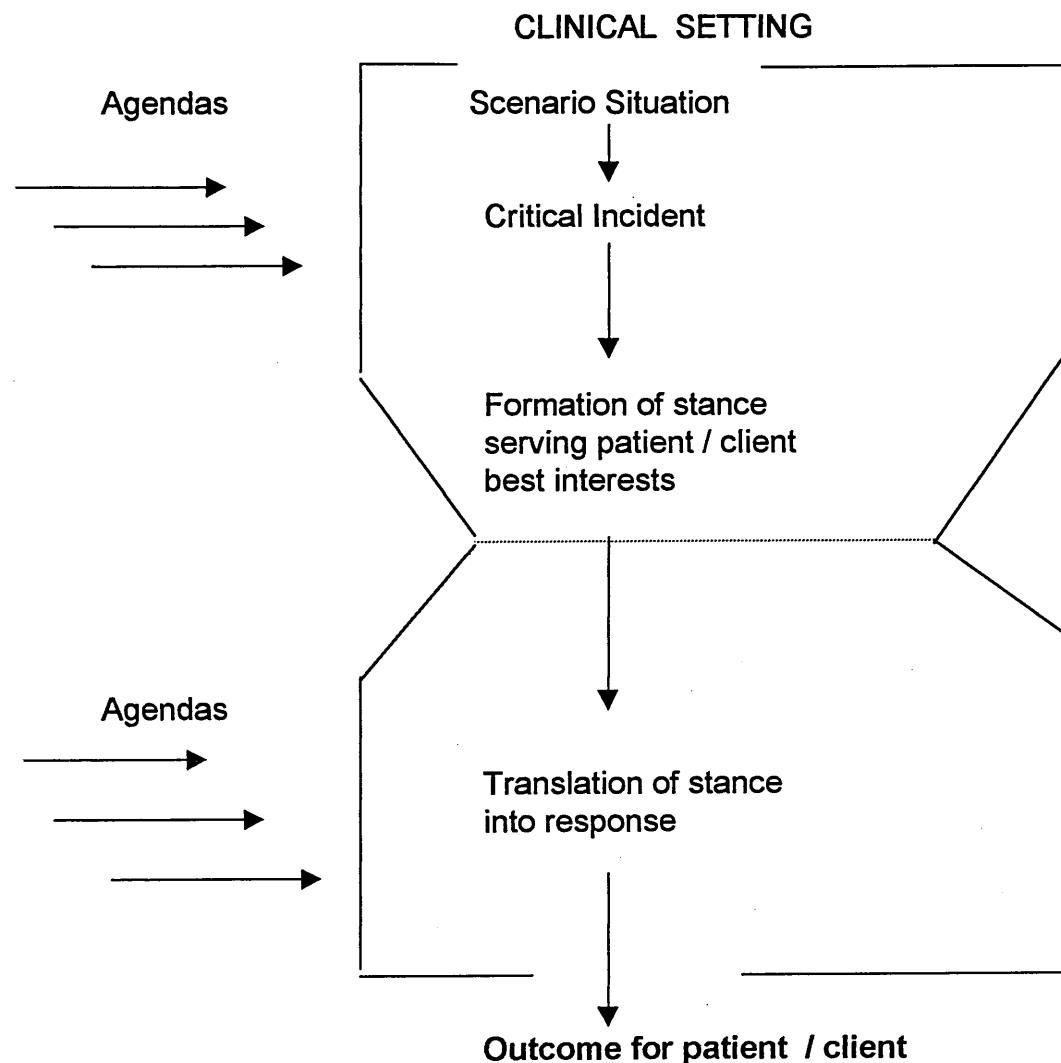


Figure 4.1 Revised model of professional autonomy

The revised model of professional autonomy makes it explicit that professional autonomy does not end with the conclusion of the first phase. It is envisaged as a process which is not complete until the stance selected by the pharmacist is translated into the response which becomes the outcome for the patient / client. Both phases of the process are critical and both are subject to the effects of the three policy agendas.

In terms of attempting to measure the variation in professional autonomy between pharmacists in a variety of practice situations the first phase presents enormous difficulties. This is because there are potentially a very large number of possible stances a pharmacist might arrive at when presented by critical incident, triggering the process. Capturing and recording these stances from a sufficient number of community pharmacists, so that the required organisational settings and occupational groupings could be represented, was considered to be beyond the resources available for this research project. In addition this information, even if accurately recorded, would not fully satisfy the objectives of this research as it does not capture how pharmacists would actually respond in practice. The arrival at a stance is only a necessary, but not sufficient, condition for the exercise of professional autonomy. This latter point is crucial, as the intention was to use the research instrument to determine how practitioners exercise professional autonomy in their practice situation. Because of this it was decided to focus the measurement primarily on the second phase of the professional autonomy process. That is the phase wherein the pharmacist, having come to a stance, translates this into an outcome in the patient / client best interest. The purpose of the instrument therefore was refined to capture the degree of autonomy pharmacists perceived they possessed in seeking to give expression to such a stance.

It should be noted that this methodology is innovative, and differs significantly from scenario use in investigations of professional autonomy in other health care professions. For example in the nursing literature the scenario has been employed as a means of eliciting from the respondent a " what I would do in this

situation” response. This is then assessed in some way, in order to determine the level of professional autonomy exhibited.

In practical terms deciding to use this methodology meant that the scenarios would be drafted in such a way, that for each one the stance would be decided. This would be in the best interests of patients / clients and would be unambiguous in every case.

The degrees of autonomy were represented by the responses to the scenarios, from which pharmacists would choose the one which most closely described the action they would take if the scenario was located within their practice.

4.7 Criteria for Scenarios

In considering possible scenarios the focus group developed a number of criteria for judging their suitability. Scenarios had to:

- Be realistic and credible, thus they needed to be based on situations that were likely to arise in community pharmacies and be within the experience of many community pharmacists;
- Be based on situations to which community pharmacists could relate, with relative ease, if they had not directly experienced them;
- Embrace the full array of the professional responsibilities of community pharmacists;
- Deal with issues where the professional judgement of pharmacists is brought into play;
- Demonstrate the point that the degree of professional autonomy exhibited by pharmacists has implications for patient care;
and, most importantly,
- Be suited for analysis from the perspective of the theoretical construct of the 3 agendas, professional, commercial and public, which impact upon the practice of community pharmacy.

Twelve scenarios were deemed to satisfy the criteria, in whole or in part. Each scenario was allocated a short descriptive label by which it may be referred to eg, for the first scenario “Parallel Imports” was chosen. To facilitate engagement with each scenario they were written to facilitate a first person response.

Each scenario will now be detailed together with an analysis of how the three agendas are expressed in each situation.

4.8 The Scenarios

(A) *Parallel Imports*

You have become concerned about the quality of the Parallel Imported drugs that you are dispensing, you have had misgivings for some time but have now come to the conclusion that they are not of acceptable quality and you do not wish to continue using them.

Commercial agenda: Pharmacists use parallel imports (PIs) because they can buy them cheaper than UK equivalents. This is because drug prices are not standardised throughout Europe, being cheaper in some markets than in the UK. Pharmacists can therefore make more profit by using PIs and this is commercially important.

Professional agenda: Pharmacists are bound by their code of ethics¹¹² that comprises nine principles and a much larger number of obligations. Principle one is that the pharmacist’s prime concern must be for the welfare of the patient and this principle is underpinned by 26 detailed obligations. Included in the obligations are that “a pharmacist must not supply any medicine where the pharmacist has any reason to doubt its safety, quality or efficacy.” And also “a pharmacist must be satisfied that both the supplier and the source of any medicine purchased are reputable. Due regard must be paid to the storage

conditions before purchase and to the labels, leaflets, appearance origin and subsequent chain of supply of the medicine concerned.”

Public agenda: On the one hand public policy is concerned with patients obtaining the maximum health gain as a result of their utilisation of drug therapies and in this respect compliance is extremely important. Medicines which are of different appearance or come in unfamiliar packaging, or have labelling in a foreign language may all deter patients from using them appropriately¹¹³. On the other hand public policy sets the financial remuneration systems for community pharmacy and has been quick to see the benefits which may accrue to the treasury if the additional profits made by community pharmacists through their use of PIs can be clawed back. This is in fact now an accepted practice.

This scenario contains elements from all of the policy agendas, with the commercial agenda pitted against the professional agenda. The public policy agenda is also significant with its contribution forming the backdrop against which the confrontation of the other two agendas is played out.

The scenario was considered by the focus group to be significant in terms of professional autonomy as the freedom of the pharmacist to exercise professional judgement on behalf of their patient could vary considerably. Principle six from the code of ethics states “A pharmacist must neither agree to practise under any conditions which compromise professional independence or judgement nor impose such conditions on other pharmacists”. This principle is underpinned by obligation 1 which states “A pharmacist must be free to exercise professional judgement when carrying out the duties of a pharmacist”

(B) Staffing

You do not have enough staff to carry out the required pharmaceutical tasks, you have made every possible effort and used all known

techniques to manage the workload with the existing staff and have reached a stage where you are certain that the work is being handled as efficiently as possible. In spite of all your efforts however you realise that you need additional staffing.

Commercial agenda: Staffing costs are an extremely important consideration in community pharmacy, where the income stream is largely determined by the NHS payment for dispensing. Commercial policy would be to expend the minimum cost to provide the service, and not under any circumstances to provide the service at a loss.

Professional agenda: Both principle one and principle three are involved in this scenario, the former in respect to the welfare of the patient being compromised and the latter in terms of the regulations pertaining to pharmacy practice and professional conduct. Principle three states “when a pharmaceutical service is provided, a pharmacist must ensure that it is efficient.” From the professional perspective the main issue here is that of the welfare and safety of the public as the pharmacist is unable to ensure these will be adequately safeguarded with existing staff levels.

Public agenda: In this case the public policy agenda is expressed via the funding mechanism for dispensing NHS prescriptions. Over the last 15 years community pharmacies have become increasingly dependent on NHS dispensing income. This has been tightly controlled by the treasury and has not risen in line with inflation as measured by RPI, or with wage rates¹¹⁴. The result has been that higher levels of productivity have been required in pharmacies in order to remain viable.

This scenario also contains elements from all of the agendas, as before it pits the commercial agenda against the professional agenda with the public agenda providing the funding limitation that makes the problem so acute.

The scope for the exercise of professional autonomy here is likely to vary considerably and the focus group considered that patients could be placed at risk if the situation was not satisfactorily dealt with.

(C) MDS Patient

In the pharmacy a person acting as carer to an elderly patient explains that the patient is confused about taking their medication and requests that you supply a monitored dosage system

You know the patient and after discussing the matter with the carer agree that this would be the best option for this particular patient.

Commercial agenda: This scenario is dealing with a single patient and the commercial implications are limited to the cost of providing and maintaining one monitored dosage system. There is indeed a cost involved but for one patient it would be unlikely to be significant for a community pharmacy.

Professional agenda: This agenda is powerfully present, the patient may well come to harm due to their confusion, and having the welfare of the patient at heart as exemplified in principle one of the code of ethics the pharmacist may decide to supply the system.

Public agenda: Here the policy would be for the patient to benefit from their drug therapy which would be more likely if they are provided with the system. However there is no funding system generally available to cover the costs of this issue, so the public agenda is largely passive in this instance.

This scenario pits the professional agenda, expressed powerfully in the shape of a known patient, against the commercial agenda, expressed weakly, as the cost of maintaining one patient on this system would not be immense. The cost would, none the less be borne by the pharmacy. The focus group considered

that in this situation a pharmacist's freedom to use their professional judgement on behalf of the patient would vary.

(D) Calendar Packs

You have decided that calendar packs of 28 should be issued because you are convinced that this helps your patients to take their medication properly, therefore you have implemented a policy of issuing in 28's. However the local GPs issue prescriptions in 30's and want you to dispense in 30's, even where this means adding 2 tablets to a calendar packed medication. The senior partner has visited you and insisted that you must comply with their request or matters will be taken further.

Commercial agenda: At first sight the commercial agenda does not seem to be dominant in this scenario, however it is present in three aspects. Firstly there is the issue about prescription numbers. If prescriptions change from 30 to 28 days supply the pharmacy may gain from one additional dispensing fee per year as 13 issues of 28 days supply would result. Secondly there could be reduction of waste as calendar packs are not being split to top up from 28's to 30's. Thirdly and most powerfully is the commercial risk inherent in opposing the prescriber's intentions. The prescriber may consider that it is they who determine the treatment periodicity and resent another professional interfering. With NHS dispensing being responsible for the vast majority of community pharmacy income the risk of upsetting the generator of NHS prescriptions would have to be very seriously considered.

Professional agenda: This agenda is clearly represented. The pharmacist is convinced that the patients would benefit from utilising calendar packs. The welfare of the patient, the first principle of the code of ethics would be enhanced by issuing the packs and the pharmacist would be ensuring an efficient pharmaceutical service.

Public agenda: This agenda would support the pharmacist making the issue of 28 day calendar packs. This provision is enshrined in the Drug Tariff and under the NHS regulations the pharmacist is the professional empowered to make the decision on which quantity to issue.

In this scenario the professional and public policy agendas are pitted against the commercial agenda. The pharmacist should, according to both the former agendas be in a position to exercise professional judgement on behalf of patients. However if this occurs the pharmacist runs the risk of upsetting the prescriber, a member of a very powerful profession on whom the pharmacist is dependent to a considerable degree. The focus group considered that the scope for individual practitioners to exercise professional autonomy would vary in response to this scenario.

(E) Dispensing Protocol

At the pharmacy in which you work you realise that you are too busy with prescriptions to spend even the minimum possible time counselling patients. You have analysed your options and are certain that in this situation a second pharmacist, which might be an ideal solution is not possible, however you do have two qualified dispensers. This being the case you decide to draw up a dispensary protocol in which the dispensers will carry out the dispensing function with regard to repeat prescriptions. This would enable you to leave the dispensary and provide the counselling and advice that your patients require.

Commercial agenda: This agenda is not to the fore in this scenario. The dispensary is busy but adequately staffed by the necessary support staff.

Professional agenda: This agenda is powerfully present in this scenario, the issue of how to organise the professional activities and divide them between

pharmacist and technician being central. The RPSGB publishes as an appendix to the code of ethics a number of standards that must be met. Standard 5.2 deals with the supervision of dispensing and refers to both the dispensing function and the counselling function outlined in the scenario. The standard commences with 5.2(1) which states that dispensing must be under the supervision of a pharmacist, continues with 5.2(3) which states that every prescription must be seen by a pharmacist. In 5.2(4) it states that "A pharmacist must exercise judgement to ensure fulfilment of professional duties to patients in the best possible way. A pharmacist must thus be able to delegate to suitably trained staff those tasks that he is confident can be undertaken by them." The professional agenda is placing the responsibility for organising the entirety of dispensing upon the pharmacist.

Public agenda: This agenda is muted in this scenario. Whilst the pharmacy profession is regulated by the Pharmacy Act 1954, the Medicines Act 1968 and the Misuse of Drugs Act 1971, the regulatory body has had main charge of how the professional work is organised and who carries the responsibilities.

This scenario is dominated by the professional agenda. Whilst the other agendas have an interest, the profession's regulatory body, the RPSGB has been most active in framing policy. Within the framework of the standards outlined by the RPSGB the pharmacist is able to exercise their professional judgement on how to organise the professional work. The focus group considered that individual practitioners would exercise varying professional autonomy in response to this scenario.

(F) *MDS Residential Home*

At the pharmacy in which you work you are asked by a local residential home to provide an MDS (monitored dose system) for their patients. You currently dispense prescriptions for the home, and have come to the conclusion that the provision of an appropriate system would definitely benefit the patients.

Commercial agenda: At first sight this scenario seems to closely resemble Scenario C, however whereas the former scenario is concerned solely with the requirements of a known single patient this one deals with the needs of a number of patients. In this case the commitment asked for is to supply the patients of a residential home and hence the commercial cost of this undertaking is likely to be considerably greater. In addition whereas the case of one patient may not necessarily constitute policy, this scenario is dealing with a commercial policy issue.

Professional agenda: The patients of this establishment may well come to harm due to not having the MDS facility. The professional agenda is not in essence any different from that pertaining in Scenario C and having the welfare of the patients at heart as exemplified in principle one of the code of ethics the pharmacist may decide to supply the system.

Public agenda: Here, as in Scenario C the policy would be for the patients to benefit from their drug therapy which would be more likely if they are provided with the system. However with no funding system generally available to cover the costs of this issue the public agenda is again largely passive in this instance.

This scenario pits the issues of the professional agenda, expressed in the context of a group of patients who would benefit from the system, against the commercial agenda. However on this occasion the commercial agenda is expressed more strongly, as the cost of maintaining the patients on this system would not be insignificant. This cost would also be borne by the pharmacy. The

focus group considered that in this situation a pharmacist's freedom to use their professional judgement on behalf of the patients would be likely to show variation.

(G) Asthma Patient

In the pharmacy you are approached by a patient who informs you that they are having great difficulty in maintaining control of their asthma symptoms since their medication was changed from the branded form to the generic form. The patient asks you to provide them with their medication in the original branded form.

You know the patient and consider that they are describing a genuine situation, you also know that the prescriber is committed to generic prescribing and will not change their prescribing in this case to meet the increased cost of the drugs.

Commercial agenda: The commercial agenda is very much represented in this scenario. The branded form of this patient's drug is more expensive than the generic form which has been prescribed and as the prescriber is committed to generic use the increased cost of branded drugs, should they be dispensed, would fall upon the pharmacy. It could be argued that for one patient the commercial issue is not large, however the medication is for asthma, a chronic condition and hence is likely, to be on repeat prescription. This means that a decision to meet this patient's need could involve a significant cost over time.

Professional agenda: This scenario is very challenging in terms of the professional agenda. The patient has convinced the pharmacist that control of the chronic condition has deteriorated since the switch to generic product. From the perspective of the welfare of the patient it could be argued that the best product to dispense would be the branded preparation which has been successfully used in the past. The alternative is to dispense a preparation which the patient has reported is not effective and the pharmacist has accepted that this is the case. From the stance of the professional agenda it may be very difficult to justify issuing the generic in this instance. It might be expected that

the professionals involved could deal with the issue, however the choice of medication is solely with the prescriber. In this instance the prescriber has considerable professional autonomy and has exercised it, the pharmacist in dispensing the prescription has to deal with the output from a member of a far more powerful profession.

Public agenda: From this perspective the issue could be viewed in a number of ways, presumably the public agenda would wish the patient to benefit from the drug therapy and yet would not wish to expend more than was necessary to achieve this objective. It could be argued that the professionals could decide what is appropriate and act accordingly, however the remuneration model used by the NHS will only allow the prescriber the choice of medication. The medication chosen by the prescriber is what the NHS will pay for and the facility to extend this choice to the dispenser does not exist. If the medication chosen by the prescriber is not effective the money expended by the NHS will have been wasted.

This scenario represents a considerable dilemma for community pharmacists, if they exercise their professional judgement and supply the branded form of the medication they will not be fully reimbursed and hence will be funding the patient's medication themselves. If they provide the generic form of which they have concerns as to efficacy, they may not be acting in the best interests of the welfare of the patient. Overarching this struggle is the public agenda which seeks value for money and so sets the parameters on payment, however if ineffective medication is supplied it is likely that the money spend will have been wasted.

(H) Practice Research

You are asked by a researcher to take part in a practice research project:

The purpose of the research project has been explained to you and you support the research aims, which you consider are ethical, and would benefit the pharmacy profession. It would not cause very much disruption to the running of the pharmacy or extra work load as the researcher would silently observe the dispensing activities and record events using a notebook. The researcher would need to be sited in, or adjacent to the dispensary throughout one working week.

Commercial agenda: This agenda is not powerfully represented in this scenario, whilst it could be argued that the researcher could obtain commercially sensitive information by being present in the dispensary there is no suggestion that their activities would have an adverse effect on the business.

Professional agenda: In this instance this agenda is most explicit. The research aims are stated to be ethical and supported by the pharmacist and whilst they are not detailed if they were likely to impact positively upon patient care the pharmacist could well consider they were acting in the interests of patients by allowing access to the researcher.

Public agenda: This agenda ought in theory to be served by high quality research emanating from community pharmacy dispensaries, especially as there is so little published work from this area, into which considerable public funds are committed.

This scenario was the first to be developed during the focus group stages of the research and was found to be extremely useful in teasing out what a community pharmacist actually could do in a defined situation. In this context the lack of a commercial agenda and the expectation of a benign public agenda should enable the community pharmacist to exercise their professional judgement without the impact of these powerful forces. It might be argued that this exercise of professional judgement is not on the patient's behalf and so this is a weaker

scenario than the others, however research in primary care is absolutely vital to improving patient care. Because of this it was considered a worthwhile scenario when the questionnaire was constructed and was retained.

(I) Domiciliary Visiting

You are asked by the Health Authority to take part in a Domiciliary visiting project, you have been fully briefed by the pharmaceutical adviser and are convinced that the project will deliver significant benefits to the patients. The Health Authority are providing sufficient funding for locum cover whilst the visits are made, and you know of a reliable locum who would undertake the task.

Commercial agenda: The main issue for this agenda is that of opportunity cost. The scenario has established that appropriate professional locum cover is available, and that the cost of this cover will be met. This removes a major impediment to taking part, however as community pharmacies are businesses the issue of opportunity cost is important. Whilst the locum should deal appropriately with the professional aspects of the service it is less likely that business development or entrepreneurial activities will be pursued. Therefore there is some potential for the commercial agenda to suffer as a result of taking part.

Professional agenda: This agenda is definitely present, the project has been designed to benefit this group of patients, who are not able to access pharmaceutical services in the normal way. The housebound have a variety of medicines related needs and the professional input of a pharmacist working in this way would enable these patients to receive a higher standard of care than would otherwise be possible.

Public agenda: The public agenda is also definitely present in this scenario, supporting housebound patients within their homes reduces the pressures upon secondary care facilities. In addition these patients are significant consumers of NHS provided medicines and it is important to ensure that they are using them in such a way as to confer the maximum benefit. The input of a pharmacist in

this situation, visiting and advising the patient at home would be extremely helpful to the aims of this agenda.

(J) Prescribing Support

You are asked by the local GPs to help rationalise their prescribing, they are considerably over budget and would like to purchase your pharmaceutical expertise in order to bring the situation under control. Most of the prescriptions dispensed at the pharmacy come from the local GPs and you have a good idea of how to tackle the problem. After giving the matter considerable thought you decide you wish to take on the work of providing prescribing advice.

Commercial agenda: The commercial agenda is forcefully present in this scenario although it is to some extent latent. The GP's are considerably over budget and wish to bring the situation under control ie, come back into budget. For this to happen their prescribing may need to be constrained. The GP's output, in this case prescriptions, is the pharmacy's input. If the output from the GP's is reduced due to them prescribing less then the amount of business undertaken by the pharmacy will decline and the turnover of the pharmacy will diminish. This is not a desirable outcome from the perspective of the commercial agenda.

Professional agenda: This agenda is also potent in this scenario. The pharmacist has been asked by the GP's for their professional input into solving a problem. This is a valuable recognition of the expertise of the pharmacist as a primary healthcare professional and hence offers the opportunity to develop and extend the influence of the pharmacy profession. This is very much in keeping with the professional agenda. In addition Principle nine of the Code of Ethics states "A pharmacist must at all times endeavour to co-operate with professional colleagues and members of other health professions so that patients and the public may benefit". The scenario states that the pharmacist has a good idea of how to tackle the problem and it is extremely likely that

patients would benefit from the pharmacist's involvement. In addition, with reference to Principle nine the public may also be beneficiaries as the budgetary overspend is being funded from the public purse.

Public agenda: This scenario depicts the type of extended role that finds considerable favour within the public agenda. The extension of the pharmacist's role to encompass prescribing support to GP's has been supported by the Dept of Health and substantial resources have been deployed to move this into the mainstream of practice. Pharmacists, because of their training and experience are uniquely qualified to provide the types of prescribing support that GP's need in order to make maximum use of their budgetary provision. There is a considerable body of published work on the contribution pharmacists have made in this area ¹¹⁵, ¹¹⁶, ¹¹⁷.

In this scenario the professional and public agendas are aligned and are largely confronting the commercial agenda. This case illustrates the tension that exists between the activities pharmacists can undertake and the funding mechanisms in place, which can deter the activity.

(K) Methadone Patient

You are approached by a patient who informs you that he is an addict and has a prescription for Methadone to be dispensed on a daily basis. The patient asks if he can use the pharmacy for this purpose.

You consider the use of Methadone to be appropriate for this patient and you wish to provide this service.

Commercial agenda: The commercial agenda present in this scenario may be considered to be balanced between the income which would result from the servicing of methadone clients and the possible downside of deterring other clients. The overall situation will vary from location to location and a commercial

decision could be made for an individual pharmacy. It is not possible to generalise with respect to this agenda, however the income from this type of service provision is relatively modest and it is unlikely to be the dominant agenda.

Professional agenda: The professional agenda is strongly represented in this scenario, the pharmacist should have as the prime concern the welfare of the patient and other members of the public. In this case the addict will have been prescribed methadone as a substitute for a drug such as heroin and it is essential that they be able to obtain their supply in order to minimise the risk of relapse. The welfare of the public is also an issue as addicts who are not stabilised on methadone frequently obtain the funds needed for street drugs by resorting to crime of various sorts. In addition the pharmacist would be aware of the risks of the spread of AIDS / HIV and Hepatitis both within the addict population and into the general population, which are increased when street drugs are utilised. Professionally it is very difficult for a pharmacist to refuse to provide this type of service for clients.

Public agenda: Again this agenda is powerfully present in this scenario. There is a growing body of research which indicates that stabilising addicts with methadone, which is a heroin substitute, is beneficial from a number of perspectives¹¹⁸. These include the health of the addict, the reduction in risk of AIDS / HIV infection from high risk injecting practices – for both the addict and others in the general population who may come into contact with the addict, and the reduction in drug related crime. New guidelines issued by the Department of Health in 1999¹¹⁹ emphasise the multidisciplinary approach and the need to stabilise addicts with daily dispensing. In addition the contribution that pharmacists can bring to the care of this group of patients has been commented on by Keen¹²⁰. From the perspective of the public agenda this is quite clear cut, it is policy that these services should be available in the community setting from community pharmacies.

In this scenario the professional and public agendas are aligned and may be acceptable to the commercial agenda or not, depending on the impact to the business of servicing the client group of addicts. The funding of these services is a crucial element in this decision and in order to persuade pharmacists to undertake the service an enhanced level of payment is made in some areas.

(L) Repeat Prescriptions

You realise that some of your patients are not taking all of the medication they collect on repeat prescriptions. After giving the matter considerable thought you decide to become more actively involved in trying to minimise the waste that this involves and help them in the management of their medication. You design a protocol which ensures that patients with repeat prescriptions are asked about compliance and given the opportunity to indicate that they do not require a prescribed item. The item is then not dispensed and the prescriber is informed. After discussing the scheme with surgery, and receiving their approval you decide you would like to proceed and introduce the scheme.

Commercial agenda: This scenario is highly unlikely to be attractive to the commercial agenda. Community pharmacies are paid to dispense prescriptions, on a piece work basis. The greater number of prescriptions dispensed the greater the income to the pharmacy. In addition the pharmacists time is a valuable resource and to utilise it in this non commercial fashion ie asking about compliance and liaising with the surgery will generate an opportunity loss to the business.

Professional agenda: The professional agenda is well represented in this scenario, the pharmacist has the opportunity to enhance the care that the patient is receiving by enquiring about compliance and liaising with the surgery in order to tailor the provision of therapy to the individual. This is in line with the currently accepted definitions of pharmaceutical care as advanced by Hepler and Strand¹²¹ which consider the responsible provision of drug therapies in order to achieve desired outcomes. The RPSGB is an enthusiastic advocate of

pharmaceutical care and this scenario encapsulates much of this aspect of the extended role.

Public agenda: The public agenda is extremely powerful in this scenario. The NHS drug budget is currently running at over six billion pounds annually in primary care and a significant proportion of this is wasted due to non-compliance. The action of the pharmacist in the scenario would be extremely helpful in identifying this wastage and remedying the situation. If sufficient pharmacists undertook this type of work the savings for the NHS could be immense.

Once again we have the professional and public agendas aligned and opposed by the commercial agenda. The current remuneration model in community pharmacy acts against this type of intervention.

4.9 Second Meeting - Refining the Scenarios

There was substantial debate over the exact form of words to be used in describing the scenarios and concerning the point at which the exercise of autonomy came into play. In addition the wording of the responses was the subject of considerable discussion for example whether in response 2 the word justify should be replaced by inform. On a number of occasions there was debate between the members of the focus group on the exact meaning of a particular word, and discussion of how it would be interpreted by pharmacists when responding to the instrument. It was clear that the scenarios would undergo a number of iterations before they would be incorporated into the research instrument in its final form. This interaction was seen as being extremely positive and a benefit associated with using a focus group methodology. Following much discussion the format of the Practice Research scenario became:

At the pharmacy in which you work you are asked by a researcher to take part in a practice research project:

The purpose of the research project has been explained to you and you support the research aims, which you consider are ethical, and would benefit the pharmacy profession. It would not cause very much disruption to the running of the pharmacy or extra work load to you or your staff as the researcher would silently observe the dispensing activities and record events using a notebook. The researcher would need to be sited in, or adjacent to the dispensary throughout one working week.

Could you ?

1. Authorise the research to go ahead, without needing to refer to anyone else, or inform them.
2. Authorise the research to go ahead, but need to inform someone in authority of the decision.
3. Recommend that the research should go ahead, with the expectation that your recommendation would be ratified by those in authority.
4. Recommend that the research should go ahead, with the expectation that your endorsement would carry some weight in the final decision.
5. Recommend that the research should go ahead, with the expectation that the decision will be made with little regard to your recommendation.
6. Recommend that the research should go ahead, with the expectation that no account will be taken of your recommendation.

At the meeting an additional response, signifying extremely low autonomy was added to the six that had been identified previously. This was to satisfy group members who commented that it would be necessary to offer respondents the option of not attempting to exercise their professional autonomy if they were

sure they would be constrained. Although this seemed an extremely negative perspective (in effect to exercise no autonomy) it was agreed to offer this option in order to capture the widest possible range of responses. This option was drafted as:

7. Decide not to seek permission from those in authority to take part in the project, as you are sure it would be refused.

Following the second meeting the 12 scenarios were drafted into this form, which was considered suitable as a basis for the research instrument.

4.10 Third Meeting - Developing the Scenarios

A third meeting of the focus group was held during the summer of 1998 in order to receive feedback on the questionnaire and finalise any changes needed before distribution.

During this meeting there was considerable debate as to how confusion among respondents could be minimised in order to increase the reliability of the instrument. In particular whether they would respond to the scenarios and indicate what they could do given the situation – as intended, or whether they would consider that use of the word “could” gave them sufficient latitude to allow a more hypothetical response. In order to guard against this eventuality the wording was changed so that after each scenario respondents are asked to indicate what they would do, rather than what they could do. This change gave the scenarios the following structure as exemplified by the Practice Research scenario shown below. This version of the questionnaire was considered ready for distribution (Appendix 1).

You are asked by a researcher to take part in a practice research project:

The purpose of the research project has been explained to you and you support the research aims, which you consider are ethical, and would benefit the pharmacy profession. It would not cause very much disruption to the running of the pharmacy or extra work as the researcher would silently observe the dispensing activities and record events using a notebook. The researcher would need to be sited in, or adjacent to the dispensary throughout one working week.

Would you ?

1. Authorise the research to go ahead, without needing to refer to anyone else.
2. Authorise the research to go ahead, but need to inform those in authority of the decision.
3. Seek permission from those in authority for the research to go ahead, with the expectation that your request would be granted.
4. Seek permission from those in authority for the research to go ahead, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority for the research to go ahead, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority for the research to go ahead, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority for the research to go ahead as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

It was now considered that the time had come to test out how this iteration of the instrument would fare when distributed to practitioners who had not been involved in its design and development.

As the intention from the outset had been to apply this instrument to a sufficient number of pharmacists to allow the research hypotheses to be tested the scenarios were incorporated into a questionnaire which was designed to collect information from respondents about the independent variables under consideration within the study.

4.11 Distribution of the Initial Pilot

Careful consideration was given to the means by which the pilot questionnaire, comprising of the scenarios should be distributed. As the intention was ultimately to distribute by post it was considered that this might be appropriate for the pilot, however a suitable sampling frame would have to have been found and community pharmacist response rates from postal questionnaires could have been low.

The method chosen for dissemination of the pilot questionnaire was distribution at post-graduate training workshops for community pharmacists organised by the CPPE. These workshops are held throughout the country and are facilitated by a network of local pharmacy tutors. Contact was made with tutors in three areas of the country in the Autumn of 1998 to determine if they would be willing to distribute questionnaires at their workshops. A positive response was obtained and hence the sampling frame was attendees at postgraduate workshops in: Wakefield / Leeds, Somerset / Devon and Doncaster / Humberside. These areas were considered to give a good geographical distribution and encompass urban, mixed and rural areas. As attendance at postgraduate workshops was voluntary for community pharmacists it was considered that attendees might represent more committed practitioners and

that this could help achieve a good response rate for the questionnaires. In the event the response rate achieved for the initial pilot was high, with 37 out of the 48 questionnaires returned (by post), giving a response rate of 77%. The responses were as depicted in Table 4.1.

Table 4.1 : Response rates for initial pilot

Area	Questionnaires	Responses
Wakefield / Leeds	21	16
Doncaster / Humberside	15	10
Somerset / Devon	12	11

4.12 Analysis of the Initial Pilot

Of the 37 questionnaires returned 4 were incomplete and were not included in the quantitative analysis which was undertaken using SPSS for Windows™ and guided by reference to Kinnear and Gray's¹²² text on using the software. A detailed analysis was undertaken of the 33 valid responses in the pilot study. This included frequency distributions, correlation matrix, factor matrix and rotated factor matrix approaches. These techniques were selected as it was considered they would be most appropriate for indicating whether the responses could be used to produce a measure or index of autonomy. The analysis of the results from the initial pilot are detailed in Appendix 2.

The results indicate some variation with respect to factors such as gender, experience and size of organisation, however the main findings relate to the fact that respondents indicated a variation in professional autonomy related to their occupational status and according to whether they worked full or part time. With regard to the most striking finding of the relationship between autonomy and occupational status, contractors indicated very high autonomy, employees indicated less autonomy than contractors, and locums indicated less autonomy than employees. This is illustrated in the table below:

Table 4.2: Level of autonomy by occupational sub-group (first pilot)

	n	Ave. Response	Std. Deviation
Contractors	6	1.07	0.42
Employees	22	2.49	1.43
Locums	5	3.37	1.46

The work undertaken in developing and piloting the questionnaire was described in an abstract sent to the 1999 British Pharmaceutical Conference and subsequently accepted as a poster presentation¹²³

4.13 Development of the questionnaire

Following the analysis of the initial pilot survey a critical appraisal of the questionnaire was carried out taking account of comments received from respondents, members of the focus group (who had been notified of the results to date) and the supervisory team.

The responses to each scenario were analysed and in each case the scenario was measured against the criteria on which they had originally been selected. It was considered that the questionnaire suffered from the following weaknesses:

The scale used to collect the variation in professional autonomy was unwieldy. Responses 3,4,5 and 6 required the respondent to estimate the degree of support that would be forthcoming from other parties. It would be misleading to infer very much in terms of these responses and introduce sources of error if the data was manipulated mathematically.

The questionnaire did not give respondents any opportunity to indicate whether they had any experience of the incidents outlined in the scenarios. In addition it did not elicit any information on how the respondent rated the incident with respect to its importance in professional autonomy. These latter two points are undoubtedly weaknesses in respect of the original criteria for selecting

scenarios ie, that they should be realistic and credible, be based around events that would be within the experience of many community pharmacists, and be important in terms of professional autonomy.

4.14 The Revised Questionnaire

The concerns discussed above led to a revision of the questionnaire, the scenarios were retained as it was considered that they had demonstrated their utility in the initial pilot survey, apart from Scenario D calendar packs. This scenario was considered to contain an explicit conflict with the medical profession which may have led to confusion. It was decided to revise this scenario and remove the reference to the GP's attempt to impose control upon the situation. For all scenarios the following changes were implemented:

The number of responses was reduced to 4, so that the responses for Scenario (H) outlined in Chapter 4 become:

1. Authorise the research to go ahead.
2. Authorise the research to go ahead, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the research to go ahead.
4. Decide not to seek permission from those in authority for the research to go ahead as you are sure that it would be refused.

This wording was considered superior because in each case the action taken is more directly related to the respondent and the actions are more definite, ie act, act and justify, seek permission to act, decline to act.

In addition it was decided to strengthen the questionnaire by including two new questions asked after the respondent had tackled the scenario. The first

additional question asked about personal experience of the subject area of the scenario:

Have you ever been involved in a similar situation?	Yes <input type="checkbox"/>
	No <input type="checkbox"/>

And the second additional question inquired about the importance of the subject area of the scenario to professional autonomy:

<i>Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy</i>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

The revised questionnaire ([Appendix 3](#)) was then sent by post to 25 community pharmacists in the Sheffield area. Completed questionnaires were received from 21 pharmacists and these were subjected to analysis using MS Excel software.

Table 4.3: Level of autonomy by occupational sub-group (second pilot)

	n	Ave. Response	Std. Deviation
Contractors	4	1.38	0.79
Employees	13	1.98	0.98
Locums	4	2.48	0.99

The pattern of the responses, allowing for the 4 point scale, was similar in that it suggested that autonomy was distributed as before. Contractors indicated higher levels, employees intermediate and locums the least.

The responses to the two additional questions were also encouraging in that all of the scenarios had been experienced within the group of respondents and

each scenario was rated as of high or very high significance with respect to professional autonomy by between 3 and 16 of the respondents.

4.15 Reliability of the Questionnaire

The questionnaire had by this stage been through a number of iterations, with modifications informed by the focus group and experience gained in use. Consideration was therefore given to the reliability of the questionnaire. A standard test of reliability would be evidence that the instrument was measuring the degree of professional autonomy in a reproducible fashion. Streiner and Norman's¹²⁴ definition of reliability as "an index of the extent to which measurements of individuals obtained under different circumstances yield similar results" could be appropriate in the general sense as the respondents from both pilot studies yielded similar results. However part of the hypothesis on which this research is based is that the degree of professional autonomy of a practitioner varies with regard to a number of factors. These include variables such as experience, occupational situation and practice setting. It is therefore apparent that the instrument is intended to record the degree of professional autonomy that an individual considers they possess, at a discrete point in time. If the instrument was to be re-applied to a practitioner after a passage of time it could not be relied upon to record exactly the same result. This does not mean that the instrument is necessarily unreliable, rather it acknowledges the dynamic nature of the variable that it is intended to measure. Therefore, because of the dynamic nature of the pharmacy workforce it was concluded that it would be unsafe to rely upon a reapplication of the instrument in order to establish reliability.

The justification for inferring reliability of the instrument is vested in the focus group methodology that produced and refined it, and the stability it exhibited in use, in the pilot studies. Although it is impossible when developing an innovative methodology to be certain that the end product is totally reliable it is

clear from experience with the pilots that the criteria set during development of the instrument and detailed in section 4.7 (p65) have been met.

4.16 Validity of the Questionnaire

Validity in this context may be taken as the extent to which a questionnaire measures what is intended. Two dimensions are detailed in Streiner and Norman's work¹²⁵, these are criterion validity – the extent to which a new measure is correlated with established measures of the concept under study, and construct validity – the extent to which a new measure is related to specified variables in accordance with an established theory or hypothetical construct.

With regard to the first dimension of criterion validity the main difficulty is the absence of an established measure of the concept under study. As no instrument for measuring the degree to which community pharmacists can express professional autonomy exists it is not possible to assess this new device in a comparative way.

With regard to the second dimension of construct validity, there is some prospect of assessing this by testing of the hypotheses generated within the research questions. One example would be the expectation that practitioners would vary in their ability to express professional autonomy and that this variation would be associated with one or more independent variables relating to the practice situation. The results from both of the pilots indicate that the questionnaire has recorded results in accordance with the hypotheses. Practitioners have been recorded as exhibiting considerable variation and this has correlated with their occupational status. We can also draw inferences of support from examination of a number of the other hypotheses against the results obtained, but due to the small sample sizes used in the pilot studies these cannot be considered substantial. Nonetheless the questionnaire has

exhibited a degree of construct validity and at this stage of its development as a new instrument this is all that can be assessed.

It was therefore considered that the instrument had shown sufficient potential to be tested in use in the main survey.

4.17 Decision to Proceed

Following a meeting of the supervisory team (May 1999) to review the second pilot and discuss the validity and reliability of the instrument it was decided to proceed with the main survey of a significant number of community pharmacists as soon as practicable.

4.18 Sampling Frame

In order to gain as representative a sample as possible it was decided that a nation-wide postal survey would be appropriate. The Royal Pharmaceutical Society of Great Britain (RPSGB) was contacted to provide assistance. The RPSGB is the statutory regulatory body for pharmacy and maintains the Pharmaceutical Register. In the case of bona fide research the RPSGB can make the register available and after providing details of the intended use this was agreed, with the information on community pharmacists provided on disk. The classification of pharmacists into community pharmacists, hospital pharmacists, academic pharmacists etc is made on the basis of the pharmacists annual return in conjunction with payment of their registration fee.

From the 22,500 community pharmacists on the database a selection was made by selecting every 10th name from the register provided starting with the number 6. Following this process a random selection of 2000 was then made.

A large sample size was deemed necessary because:

- Community pharmacists work in a highly pressured environment and may therefore exhibit a low response rate.
- The use of scenarios within the questionnaire might not be familiar procedure for many community pharmacists and therefore the response rate might be adversely affected.
- Although not extremely time consuming to complete, the questionnaire in its final form was a substantial document.
- Concern that some employers might block pharmacists from returning their questionnaire.

The final version of the questionnaire (attached as Appendix 4) was ready at the start of August 1999 and the address labels for the sample selected from the RPSGB listing were also in place. As it was considered that many community pharmacists would be on holiday in August (which might reduce the response rate) the mailing went ahead at the start of September 1999.,and responses began encouragingly, by 20th September a total of 519 replies had been received. From this date on the rate slowed and eventually a total of 626 completed questionnaires were received for analysis.

4.19 The Response Rate

The rationale from the start of the project had been to obtain sufficient responses to enable statistically meaningful analysis to take place. This took precedence over the response rate, which it was acknowledged might be low. In addition, a conscious decision had been made to use all of the limited funds available on a large single mailing. If funding had allowed a second mailing and the issue of reminders would have been undertaken.

In the event the response rate for completed questionnaires was 31%.

A possible explanation for some of the lack of response could have been the intervention of employers in blocking return of the questionnaire. It is not known

to what degree in total this occurred however a letter was received from the Assistant Pharmacy Superintendent of Boots The Chemists ([Appendix 5](#)) indicating that the company would not be supportive of completion of the questionnaire. It is not known what action, if any, this company took to prevent its pharmacists completing the questionnaire. Nor is it known if other companies took action without making contact. What is beyond doubt is that if companies constrained pharmacists from taking part in a bona fide research project they were attempting to limit their professional autonomy to a substantial degree.

4.20 Validation of the Respondents

Given the response rate it was important to determine whether, or not the respondents were a reasonable representation of community pharmacists. To do this it was decided to compare some of the frequencies observed with those from a West Midlands pharmacy workforce survey carried out between November 1997 and January 1998 and published in the Pharmaceutical Journal in December 1999¹²⁶. This large regional survey elicited 1587 respondents from pharmacists working in all sectors of the profession, and included a 78.6% component of community pharmacists.

Table 4.4 Comparison of responses with those from Blenkinsopp's Survey

Magirr 1999 survey valid responses	Blenkinsopp et al (1999)
Male 44.3%	46.3%
Female 55.7%	53.1%

Source Magirr survey (1999) n=619

Source Blenkinsopp workforce survey (1997/8) n=1587

With regard to the gender of respondents the survey has returned a very similar result to the Blenkinsopp survey. Such differences as do exist could be accounted for by a number of factors including; timing (the surveys were almost two years apart), regional factors in the West Midlands, and the fact that the Blenkinsopp survey included hospital, academic and industrial pharmacists.

Nonetheless the respondents clearly reflect the gender balance in the workforce accurately.

Table 4.5 Occupational status Magirr Survey

Magirr 1999 survey valid responses	
Contractors	19.3%
Employees	51.9%
Locums	28.9%

Source Magirr survey (1999) n = 614

With regard to comparing occupational status of respondents the situation is considerably more difficult as different definitions and criteria may have been applied. Blenkinsopp details occupational status by “pharmacy type” and does not include locum respondents. However information is given on number of locum respondents separately, hence it is possible to calculate the percentage of locums as a function of the total community pharmacists respondents.

Accuracy will not be perfect because of the need to make the assumption that all locums work in community pharmacy and not in other sectors. This is implied but not categorically stated in the paper. Blenkinsopp reports 354 locum respondents among the 1587 respondents and comments that more than one in five respondents fit this category (22.3%). However as locum work is much more common in community pharmacy the strong probability is that the majority of these 354 locums worked there. In this case we need to consider the 78.7% of the respondents who declared that they worked in the community sector, approx 1250 in total. The calculation of the locum component of this grouping is 28.3% which is in good agreement with the survey.

Unfortunately Blenkinsopp et al did not report on the number of independent contractors, instead they gave the data in the following form:

Table 4.6 Occupational status from Blenkinsopp et al

Pharmacy type	Percentage of respondents
Owner / employer	27.2
Work for independent	5.2
Work for small / medium multiple	19.7
Work for large multiple	47.8

Source Blenkinsopp workforce survey (1997/8) n = 858

Again this data excludes returns from locums which makes direct comparison difficult, however it is possible to recalculate the table as the number of locums is known. The assumption again being made that all of the locums work in community pharmacy.

Table 4.7 Occupational status adapted from Blenkinsopp et al

Pharmacy type	Percentage of respondents
Owner / employer	19.3
Employee	51.5
Locum	29.3

Source Blenkinsopp workforce survey (1997/8) n = 1212

With regard to occupational status the survey has returned a very similar pattern to Blenkinsopp et al. In addition two calculations on the data have returned almost identical values for the percentage of locum pharmacists so it is clear that the assumption that all, or almost all, of these work in community pharmacy is valid.

Whilst it must be acknowledged that the response rate gave rise to some concern, it is clear that the respondents are, in so far as can be determined, a representative cross section of the community pharmacy workforce. This being the case it was decided to proceed with a full analysis of the results obtained.

Chapter 5: Results (I)

5.1 Methods of Analysis

The methods used to analyse the results have been chosen to ensure that the research questions generated in Chapter Three may be answered in so far as it is possible to do so. The approach taken is as follows:

Firstly, an initial analysis of the responses to the questionnaire was undertaken using SPSS for Windows. This initial work yielded a substantial amount of descriptive information about the respondents and enabled inferences to be made with regard to the representativeness of the sample. Further exploration of the data elicited a considerable amount of information that was useful in guiding the further detailed analysis. In addition the results accrued during this stage of the work give rise to some confidence in the instrument itself, and in the sampling frame used which has produced a respondent profile representative of the community pharmacy workforce.

Secondly, a bivariate analysis was undertaken in which each variable under consideration was looked at in conjunction with each of the scenarios and the percentage of respondents who opted for the high autonomy response recorded. This gave a great deal of information about which variables were associated with the high autonomy response and should therefore be subjected to further more detailed analysis.

Thirdly a multivariate modelling technique was employed in order to look at the effect of each variable after excluding the effects from other variables that may be present. This was necessary because the complex nature of community pharmacy employment meant that there was a real risk of “contamination” as a number of variables could be contributing to an observed result.

Fourthly, principal component and factor analytic techniques were employed in order to explore possible indices of autonomy and determine whether the

responses obtained were consistent with the hypothesised conceptual structure of autonomy.

5.2 Initial Analysis

An initial analysis of the responses to the questionnaire was undertaken and the results are as follows.

5.2.1 *Work in community pharmacy*

Question 1 asked whether the recipient worked in community pharmacy. This was asked in order to ascertain that the sampling frame was accurate. The results were as follows:

Q1. Do you work in community pharmacy?

Table 5.1. Work in community pharmacy

	Yes	%	No	%
Female	343	55.1	3	0.5
Male	275	44.1	2	0.3
Total	618		5	

n=623

Of the 623 responses to this question a total of 618, comprising 343 females and 275 males answered yes. This indicates that the sampling frame was 99.2% accurate in identifying community pharmacists. The sample contains a larger proportion of female pharmacists, which might be expected from the increase in the number of female pharmacy graduates (see Table 5.7 page 106). Also data provided by the RPSGB for the most recent year available (1996) shows that the proportions of registered pharmacists under 60 years old

were: female 54% (15,997), male 46% (13,415). Thus there is a considerable rationale for inferring that the gender balance of the respondents accurately reflects the workforce.

5.2.2 Main employment in community pharmacy

Question 2 asked whether the recipients' main employment was in community pharmacy. This was asked in order to determine the degree to which respondents identified community pharmacy as their main employment. The results were as follows:

Q2. Is your main employment in community pharmacy?

Table 5.2. Main employment in community pharmacy

	Female	%	Male	%	Total	%
Yes	334	97.4	262	97.0	596	97.2
No	9	2.6	8	3.0	17	2.8

n=613

From the above it can be seen that 596 respondents identified community pharmacy as their main employment. This constitutes 97.2% of the sample and indicates that it is appropriate to regard the respondents as working community pharmacists ie, the intended target group.

5.2.3 Full or part-time working

Question 3 asked if the recipient worked full or part-time, the results were as follows:

Q3. Do you work full-time (on average over 35 hours per week)

Do you work part-time (on average less than 35 hours per week)

Table 5.3. Full or part-time working

	Female	%	Male	%	Total	%	Total
Full-time	191	55.2	215	78.8	406	65.6	406
Part-time	155	44.8	58	21.2	213	34.4	213

n= 619

From the above it can be seen that 406 (65.6% of respondents) worked full-time and 213 (34.4%) part-time. Part-time working was considerably more prevalent among female respondents with 155 (44.8%) identifying this as their mode.

Male respondents indicated that 58 (21.2%) worked part-time. This is in line with results reported by researchers working in Britain such as Symonds¹²⁷ who found 31% of pharmacists in her survey conducted in 1995 to be working part-time. Jefferson and Korabanski¹²⁸ reported 31.6% of the respondents to their postal questionnaire worked part-time, with a female to male ratio of 2.33:1.

This compares with the figures reported above which yield a ratio of 2.11:1 indicating that the responders to this questionnaire constitute a representative sample of the pharmacy workforce with respect to full and part-time working.

5.2.4 Occupational status

Question 4 asked for the occupational status of the respondent, giving options of contractor pharmacist, employee pharmacist or locum pharmacist. The results were as follows:

Q4 At present are you:

A contractor pharmacist

An employee pharmacist

A locum pharmacist

Table 5.4 Occupational status

	Female	%	Male	%	Total	%
Contractor	35	10.2	84	30.9	119	19.4
Employee	207	60.5	112	41.2	319	52.0
Locum	100	29.2	76	27.9	176	28.7

n = 614

Of the 614 respondents to this question 19.4% identified themselves as contractors, 52% as employees and 28.7% as locums. This is similar to the breakdown reported by Blenkinsopp et al and discussed in Chapter 4, and the results reported by Magirr and Ottewill in 1995¹²⁹.

Of the 119 contractors in the sample, 84 were male (70.6%). With regard to employees the majority were female, with 207 out of 319 respondents (64.9%). In the case of locums the genders were more evenly represented with 56.8% female and 43.2% male.

5.2.5 Organisational size

Question 5 asked those respondents identifying themselves as employees about the size of the organisation they worked for. Employees were asked if they worked for:

A large multiple – over 50 branches

A multiple – over 20 branches

A medium group – over 5 branches

A small group with 2-5 branches

An independent

On looking at the data it was considered appropriate, because of the small size of some sub groups, to reduce the categories to 4 by combining medium group with multiple to give a medium multiple category.

The results are as shown in Table 5.5

Table 5.5 Organisational size by gender

	Organisational Size				
Gender	Large Multiple	Medium Multiple	Small Group	Independent	Total
Female Count	137	36	21	12	206
% female	66.5%	17.5%	10.2%	5.8%	100.0%
Male Count	65	20	16	9	110
% male	59.1%	18.2%	14.5%	8.2%	100.0%
Total Count	202	5	37	21	316

Source Magirr survey (1999) n = 316

There is some indication that the sex ratio changes with organisational size.

The data suggests that females are slightly more prevalent in the largest multiples whereas the opposite is the case in the smaller organisations.

5.2.6 Location of pharmacy

Question 6 asked for information on the on the location of the pharmacy at which the respondent worked. Respondents were asked to choose from one of the following descriptions of pharmacy locations that which most closely matched where they worked. These descriptions e.g. rural were not defined in the questionnaire, it being left to the respondents to identify their situation. The options were:

A pharmacy sharing premises with a GP surgery(1)

A pharmacy in a supermarket(2)

A pharmacy in a town centre(3)

A pharmacy in a suburban shopping location(4)

A pharmacy in a rural location(5)

This question yielded the following results:

Table 5.6 Location of pharmacy

Crosstab								
			Which of the following best describes where you					Total
			A pharmacy sharing premises with a GP surgery	A pharmacy in a supermarket	A pharmacy in a town centre	A pharmacy in a suburban shopping location	A pharmacy situated in a rural location	
Are you	Female	Count	18	25	111	148	45	347
		% within Are you	5.2%	7.2%	32.0%	42.7%	13.0%	100.0%
		% within Which of the following best describes where you	46.2%	65.8%	59.7%	53.6%	55.6%	56.0%
	Male	Count	21	13	75	128	36	273
		% within Are you	7.7%	4.8%	27.5%	46.9%	13.2%	100.0%
		% within Which of the following best describes where you	53.8%	34.2%	40.3%	46.4%	44.4%	44.0%
Total	Count	39	38	186	276	81	620	
	% within Are you	6.3%	6.1%	30.0%	44.5%	13.1%	100.0%	
	% within Which of the following best describes where you	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

n = 620

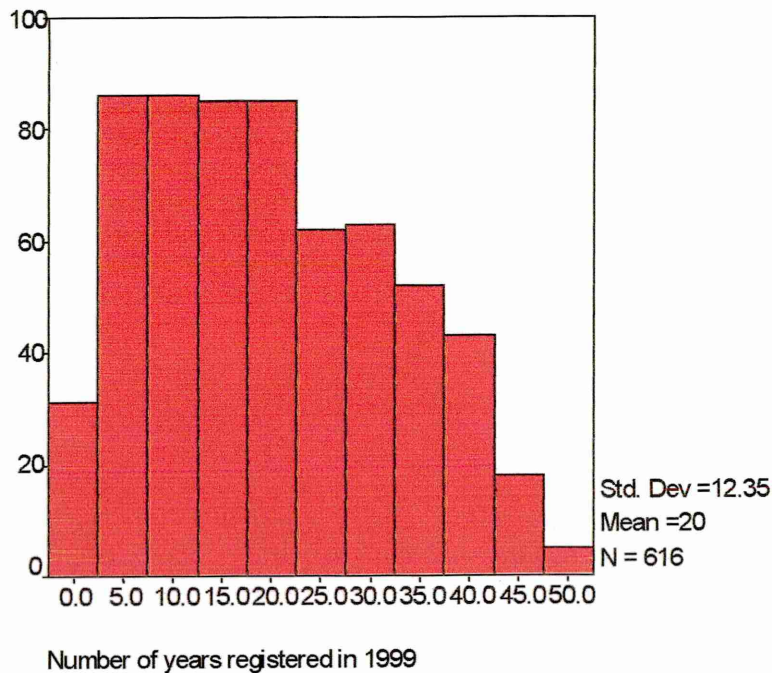
From the above it can be determined that the sample contained representation from each of the locations described. The largest grouping was the suburban shopping location, this was followed by the town centre type. These two descriptors accounted for almost 75% of the responses. Rural locations accounted for 13.1% and GP surgery and supermarket locations just over 6% each.

5.2.7 Number of years registered

Question 7 asked the year of registration with the RPSGB, the number of years on the register was calculated by subtracting this number from 1999. The distribution of years of registration can be shown as follows in figure 5.1:

Figure 5.1 Distribution of the workforce by years registered.

Source Magirr survey (1999)

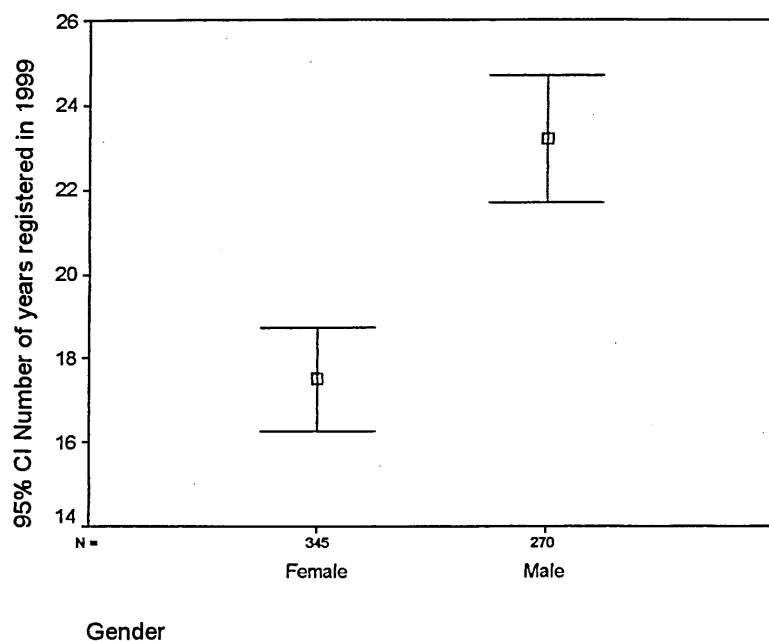


The pattern found indicates representation across the range and can be compared with the distribution of estimates of percentages of membership by age and principal occupation for community pharmacists received from the RPSGB. ([Appendix 6](#)). It is clear that the age / experience distribution of the respondents is very similar to that of the membership (community pharmacists). Thus in terms of age / experience the respondents appear to constitute a representative sample of registered community pharmacists.

When registration period by gender for the respondents was considered the results are as depicted in the error bar plot of Figure 5.2. A full explanation of error bar plots and their usage is given in section 6.4 (p138)

Figure 5.2 Years registered by gender

The plot depicts years registered with regard to gender and indicates the relatively larger numbers of female pharmacists who have shorter registration periods than males. This is what would be expected in view of the changes



that are known to be occurring in the workforce with the percentage of female pharmacy graduates from 1989 to 1998 topping 60% in each year but one¹³⁰.

Table 5.7 Female pharmacy graduates

Year	Total of graduates	Percentage female
1989	1,051	60
1990	1133	64
1991	1154	58
1992	1159	61
1993	1205	62
1994	1189	65
1995	1290	62
1996	1355	62
1997	1334	61
1998	1438	62

5.2.8 The respondents

From a number of perspectives the respondents appear to constitute a representative sample of practising community pharmacists. This successful outcome indicates that the results obtained from the analysis of the data should be generalisable to the community pharmacy workforce.

5.3 Initial Analysis of the Responses to the Scenarios

An initial analysis was carried out using SPSS in which each of the scenarios was considered. For each scenario respondents were required to undertake 3 actions. Firstly to choose the option from the 4 offered which most closely matched what they would do in the situation. Secondly they were asked to indicate if they had ever been involved in a similar situation. This was asked in order to ascertain that the scenarios were based on credible events that practising pharmacists could relate to. Thirdly they were asked to rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy. This was asked in order to ascertain that the scenarios related to issues that respondents considered were important with respect to professional autonomy.

Before embarking on a detailed analysis of the responses to the scenarios it was considered prudent to investigate the responses obtained in respect of these last two dimensions, ie respondents experience of similar situations and their assessment of the significance of the issues for professional autonomy.

5.3.1 Respondents' experience of similar situations

For scenario A the following result was derived by cross-tabulation using SPSS.

Table 5.8 Respondents' experience of situations similar to that in scenario A.

Count		At present are you			Total
		A contractor pharmacist	An employee pharmacist	A locum pharmacist	
Have you ever been involved in a similar situation?	Yes	35	82	70	187
	No	80	232	102	414
Total		115	314	172	601

This result indicates that 187 pharmacists out of 601 respondents had experience of a similar situation to that described in the scenario. In addition pharmacists from each occupational group had such experience, suggesting that the scenario was credible to practitioners.

Each scenario was subjected to the same cross-tabulation and the full results are shown in Table 5.9. Thus for example a Scenario C like event had been experienced by 82% of contractors and in rank order was the scenario experienced most by contractors.

Table 5.9. Respondents (%) replying yes: having experience of a similar situation to that described in each scenario

Scenario	Contractors		Employees		Locums	
	% Yes	Rank	% Yes	Rank	% Yes	Rank
C n = 611	82%	1	79%	3	69%	4
K n = 602	82%	2	86%	1	84%	1
G n = 590	79%	3	83%	2	84%	1
D n = 619	74%	4	62%	5	70%	3
B n = 617	65%	5	70%	4	49%	5
F n = 602	58%	6	50%	6	29%	7
A n = 611	30%	7	26%	8	41%	6
J n = 608	25%	8	18%	9	12%	11
E n = 599	23%	9	35%	7	25%	8
I n = 605	23%	10	17%	10	6%	12
H n = 610	22%	11	15%	11	16%	9
L n = 602	22%	12	12%	12	14%	10

This result indicates that respondents had experience of the type of situation described in each of the scenarios. The data shows that scenarios C, K,G,D, and B were those with which the respondents had most experience. In addition this was the case for each of the occupational groupings. This result indicates that the design criteria for the scenarios was largely met with respect to this dimension.

5.3.2 Significance of the issues for professional autonomy

The next area for consideration with regard to each scenario was to assess the importance of the issue raised (in the scenario) in terms of significance for the exercise of professional autonomy. Respondents were asked to rate on a 5 point scale ranging from very low importance to very high importance. The result for scenario A is as shown below in Table 5.10:

Table 5.10 Respondents' rating of the significance of scenario A with respect to professional autonomy.

	Contractors	Employees	Locums	Total
Very low	6	5	1	12
Low	6	8	7	21
Medium	18	83	39	140
High	45	166	89	300
Very high	39	55	40	134

With regard to scenario A, it was found that 434 out of 607 respondents (71.5%) rated the significance of the issue raised as being of high, or very high importance. In addition this pattern was common across the occupational groupings. Each of the scenarios was subjected to the same cross-tabulation and the results are shown in Table 5.10.

Table 5.11. Respondents (%) rating for scenario as being of high or very high importance with regard to the exercise of professional autonomy

Scenario	Contractors		Employees		Locums	
	High/very high	Rank	High/very high	Rank	High/very high	Rank
A n = 616	74%	1	70%	3	73%	3
B n = 619	73%	2	73%	2	74%	1
E n = 604	67%	3	75%	1	74%	1
C n = 618	60%	4	61%	7	65%	5
J n = 612	59%	5	64%	5	56%	7
G n = 595	57%	6	67%	4	64%	6
I n = 615	55%	7	45%	10	45%	11
L n = 612	54%	8	62%	6	56%	7
K n = 608	54%	9	61%	7	66%	4
D n = 621	52%	10	38%	11	48%	10
F n = 607	45%	11	50%	9	49%	9
H n = 616	20%	12	13%	12	15%	12

This result indicates that in almost all cases (scenario H being a clear exception) the respondents rated the issues contained in the scenarios as being significant for the exercise of professional autonomy. There was some divergence between the occupational groups, however scenarios A,B,E,C,J and G scored highly with all groups.

5.4 Comment on Responses

The analysis of responses obtained in respect of both experiences with similar situations, and importance of the issues for professional autonomy suggest that the scenarios are grounded in reality and deal with cogent issues of professional judgement. This being the case it is now appropriate to undertake an analysis of the responses to the scenarios.

5.5 Initial Analysis of Scenarios

In this section each of the scenarios will be considered and an initial bi-variate analysis carried out with regard to the variables identified in Chapter 3 which are considered likely to impact upon professional autonomy. These variables are:

- Occupational status
- Gender
- Full or part-time working
- Size of employing organisation
- Length of time qualified

Following on from this work, binary logistic main effects models will be used to further explore the relationships between the variables.

5.5.1 *Occupational status*

From the outset occupational status was considered an important dimension to explore with regard to professional autonomy in community pharmacy. The contractor model, as discussed in Chapter 1 is still nominally in place, however with so much of the service provision undertaken by employees and locums it is essential to understand the relationship between professional autonomy and occupational status.

The first scenario to be considered was scenario A, which dealt with Parallel Imports.

In accordance with the methodology previously described the respondents had a choice of 4 options and were asked to select the one that they would choose, having placed themselves in the situation. The options were:

- Change to higher quality products (this was coded 1 – high autonomy)
- Change to higher quality products, but need to justify your decision to those in authority (coded 2)

- Seek permission from those in authority for a change to higher quality products (coded 3)
- Decide not to seek permission from those in authority for the change to higher quality products as you are sure it would be refused (coded 4)

The cross-tabulation has been undertaken to depict the high autonomy responders (code 1) and the remainder (codes 2 – 4)

Table 5.12 Autonomy responses by occupational status

Crosstab						
			At present are you			Total
			A contractor pharmacist	An employee pharmacist	A locum pharmacist	
BIN1A_1	code2_4	Count	15	214	126	355
		% within BIN1A_1	4.2%	60.3%	35.5%	100.0%
		% within At present are you	13.3%	67.5%	72.8%	58.9%
	code1	Count	98	103	47	248
		% within BIN1A_1	39.5%	41.5%	19.0%	100.0%
		% within At present are you	86.7%	32.5%	27.2%	41.1%
	Total	Count	113	317	173	603
		% within BIN1A_1	18.7%	52.6%	28.7%	100.0%
		% within At present are you	100.0%	100.0%	100.0%	100.0%

The most striking aspect of this cross-tabulation is the marked difference in autonomy perceived by contractors compared with the other occupational groups. A large majority of contractors (86.7%) responded by indicating high autonomy (1). Amongst employees only 32.5% indicated high autonomy and amongst locums the figure was lower still at 27.2%.

Each scenario was subjected to the same cross-tabulation in order to determine whether this was a common feature e.g for contractors Scenario E evoked the greatest level of high autonomy responses (95%) and was ranked 1st. For employees this scenario ranked 4th in terms of the high autonomy response (62%). The full results are displayed in Table 5.13.

Table 5.13 Percentage of high autonomy responders, by occupational group for each scenario.

Scenario	Contractors		Employees		Locums		
	H. Autonomy	Rank	H. Autonomy	Rank	H. Autonomy	Rank	χ^2
E n = 584	95	1	62	4	49	3	< 0.01
I n = 600	95	1	27	10	35	8	< 0.01
J n = 602	92	3	29	9	44	5	< 0.01
B n = 606	91	4	7	12	8	12	< 0.01
K n = 592	89	5	87	1	63	1	< 0.01
D n = 601	89	5	73	2	54	2	< 0.01
H n = 600	88	7	19	11	21	10	< 0.01
A n = 603	87	8	33	8	27	9	< 0.01
L n = 591	86	9	54	6	36	7	< 0.01
C n = 607	86	9	69	3	46	4	< 0.01
F n = 588	78	11	38	7	18	11	< 0.01
G n = 554	44	12	56	5	42	6	< 0.01

As can be seen from Table 5.13. contractors exhibit high autonomy on every scenario except G (Asthma Patient). The pattern for employees and locums is somewhat different, with more variable levels of autonomy indicated.

Employees and locums indicated their highest levels of autonomy for scenario K (Methadone), followed by scenario D (Calendar Packs). In each case employees indicated higher autonomy than locums.

For each scenario the differences in autonomy are significant at the 1 % confidence level using the Chi Square test.

The pattern of responses suggests that occupational status is a very significant factor in professional autonomy, it is, with one exception, general across the scenarios. In the case of the single exception i.e. scenario G the explanation may be sought in a contextual analysis of the scenario using the agendas as

discussed in Chapter 4. In the case of the asthma patient scenario the commercial agenda is represented and contractors are not shielded from the commercial consequences inherent in the high autonomy response. Employees and locums are to some extent removed from the direct commercial consequences of assisting the patient and choosing the high autonomy response.

Combining code 1 and code 2 responses

There is a case to be made for examining code 1 and code 2 responses together. This is because although a code 2 response does not indicate the same degree of autonomy as code 1, it is nonetheless a method by which a practitioner can undertake an action for a client without awaiting permission. From the perspective of the client the outcome may, in some circumstances, be considered identical irrespective of whether the pharmacist responded with 1 or 2.

For scenario A (Parallel Imports) when high autonomy alone was considered the result obtained is as shown in Table 5.12. However when code 1 and code 2 responses are combined the following result is obtained:

Table 5.14. Code 1 & 2 combined, by occupational grouping

Scenario	Contractors	Employees	Locums
	Code 1&2 combined	Code 1&2 combined	Code 1&2 combined
A	93%	56%	51%

With regard to scenario A the effect of combining code 1&2 responses is considerable for employee and locum responders, however there is still a wide gap between the autonomy of contractors and other pharmacists. This procedure was applied to additional scenarios to confirm the result and

establish whether the results should be considered in this form. Analysis indicated that the pattern was similar to that found with scenario A and so further results are not presented in this form.

5.5.2 Gender

As before scenario A (Parallel Imports) was examined first, the analysis was undertaken using SPSS and the results incorporated in Table 5.15 below:

Table 5.15 Autonomy by gender. n = 612

	Female Pharmacists	Male Pharmacists	Total
Codes 2 - 4	224 (64.9%)	135 (50.6%)	
Code 1	121 (35.1%)	132 (49.4%)	
Total	345	267	612

This scenario elicited 612 responses and indicated that with respect to option (1) which indicates the greatest degree of autonomy there was a difference between the genders, which was significant at the 1% confidence level,

35.1 % of female pharmacists indicated that they would choose this action compared to 49.4% of male pharmacists.

An investigation was undertaken to determine whether female pharmacists achieve the same outcome ie, use of higher quality products for their patients by means of choosing option (2). This option was chosen by 20% of both genders and was not therefore selectively used by female pharmacists.

Each of the scenarios was then subjected to cross tabulation in SPSS to explore gender differences with respect to autonomy. The percentage of high autonomy responders, that is those who chose response 1 for each scenario was calculated and the results are shown in Table 5.16 below

Table 5.16. % High autonomy responders, by gender for each scenario

Scenario	Female Pharmacists		Male Pharmacists		
	H. Autonomy	Rank	H. Autonomy	Rank	χ^2
K (n=601)	78	1	85	1	< 0.05
D (n=610)	70	2	71	2	n.s.
C (n=616)	63	3	69	4	n.s.
E (n=594)	60	4	71	2	< 0.01
G (n=562)	53	5	45	10	< 0.05
L (n=599)	48	6	64	5	< 0.01
J (n=611)	38	7	55	6	< 0.01
A (n=612)	35	8	49	8	< 0.01
I (n=610)	35	9	53	7	< 0.01
F (n=597)	32	10	48	9	< 0.01
H (n=610)	22	11	45	11	< 0.01
B (n=616)	14	12	37	6	< 0.01

When gender is considered with regard to autonomy it is clear that the pattern is somewhat different to that found with occupational status. There are differences in the percentage of male and female pharmacists who respond with high autonomy, and most of these are statistically significant, either at the 1% or 5% confidence level, however the degree of autonomy recorded seems to be more closely related to the individual scenario. Both male and female pharmacists recorded the highest level of autonomy with regard to the methadone scenario (K). This was followed in both cases by the calendar packs scenario (D). The MDS patient (C) was third in terms of autonomy for female pharmacists whilst males recorded higher autonomy on the dispensing protocol scenario (E). It is of interest that that K, D, E & C are the scenarios on which employees and locums recorded the most autonomy. It may be that some aspects of these situations are important in the exercise of professional autonomy and in the case of K, and C this might pertain to the one to one aspect. In these cases the pharmacist is faced with an individual patient with a

problem, this may influence the pharmacist to act with high autonomy. If the responses are compared for (C) the individual patient in need of an MDS system with (F) MDS for a residential home, it can be seen that both male and female pharmacists record lower levels of autonomy for the residential home situation. This may reflect the higher degree of commitment and the resource implications of providing this service, or it may be that the pharmacists did not perceive this to be a service for patients despite the wording of the scenario, which made this explicit.

Overall male pharmacists recorded higher levels of autonomy than females with the exception of the asthma patient scenario (G).

The initial analysis with regard to gender suggests that gender is an important variable influencing the degree of professional autonomy possessed by a community pharmacist, however it does not appear to be as important as occupational status. In addition the differences due of gender may contain elements of full/part-time working, occupational and organisational status, due to the differing work patterns between male and female pharmacists.

5.5.3 Full and part-time employment

The next variable to be considered was the working pattern of the pharmacist responders in terms of whether they worked full or part-time. The sample of responders contained 213 part-time workers and 406 full-time workers, a ratio of 1:2 , suggesting that part-timers are an important component of the pharmacy workforce.

The cross tabulation was undertaken on SPSS and the results are show in Table 5.17 below:

Table 5.17 Percentage of high autonomy responders, by full and part-time, for each scenario

Scenario	Full-time		Part-time		
	H. Autonomy	Rank	H. Autonomy	Rank	×2
K (n=597)	88	1	68	1	< 0.01
D (n=606)	80	2	52	2	< 0.01
C (n=612)	74	3	48	4	< 0.01
E (n=589)	72	4	50	3	< 0.01
L (n=595)	63	5	38	6	< 0.01
G (n=558)	54	6	43	5	< 0.05
J (n=607)	50	7	36	7	< 0.01
A (n=608)	48	8	27	9	< 0.01
F (n=593)	48	8	23	10	< 0.01
I (n=605)	48	8	31	8	< 0.01
H (n=605)	39	11	18	11	< 0.01
B (n=611)	32	12	8	12	< 0.01

The pattern of responses with scenarios K,D,C and E recording highest levels of autonomy is similar to that seen when gender was considered. As with gender the variation between responses is strongly related to the scenario.

Overall full-time workers recorded higher levels of autonomy for every scenario than part-timers, and these differences are statistically significant at either the 1% or 5% confidence levels, therefore this variable is important with respect to professional autonomy.

When full and part-time working is considered it is important to note that gender is an important component. This is because 72.8% of part-time workers in the sample were female. In addition issues of occupational and organisational status may contribute to the overall lower levels of professional autonomy exhibited by part-time pharmacists.

5.5.4 Size of employing organisation

The questionnaire sought to collect data on the size of organisation that the respondent (if an employee pharmacist) worked for. Respondents were asked to indicate their employing organisation as being one of the following sizes:

- large multiple (over 50 branches)
- medium multiple (6 to 50 branches)
- small group (2 – 5 branches)
- Single – independent

Table 5.18. Percentage of high autonomy employee responders, by size of employing organisation for each scenario

Scenario	Large	Medium	Small	Independent	
	Multiple	Multiple	Group		χ^2
A (n = 314)	27.0	41.1	45.9	42.9	< 0.05
B (n = 311)	7.5	7.4	5.6	9.5	ns
C (n = 312)	65.8	82.1	67.6	70.0	ns
D (n = 311)	72.9	73.2	68.6	81	ns
E (n = 305)	60.6	72.7	55.6	57.1	ns
F (n = 311)	39.9	27.3	37.8	52.4	ns
G (n = 293)	58.4	51.0	59.4	45.0	ns
H (n = 316)	13.9	21.4	29.7	33.3	< 0.05
I (n = 313)	23.4	25.0	42.9	42.9	< 0.05
J (n = 314)	24.0	30.4	45.9	47.6	< 0.05
K (n = 313)	87.6	89.1	91.7	71.4	ns
L (n = 311)	54.3	60.0	44.4	47.6	ns

NB: the lowest percentage of high autonomy responders for each scenario is in bold print.

It has already been established how employees as a whole responded to the individual scenarios and the results are detailed in Table 5.13. The information detailed in Table 5.18 above shows how high autonomy response varied by size of employing organisation.

Looking at the table it is hard to deduce a clear pattern with respect to organisational size. With some scenarios, for example Parallel Imports (A) it appears that employees of the largest multiples have least autonomy, this is also the case with the MDS Patient (C), Practice Research (H), Domiciliary Visiting (I), and Prescribing Support scenarios. In the cases of scenarios A, H I, and J these results are significant at the 5% confidence level. However as can be seen from the table employees of all sizes of organisation indicate the least autonomy on at least one scenario. This suggests that in this instance autonomy seems to relate more strongly to the individual scenario than to the variable ie organisational size, being examined. Therefore considering the agendas operating in each scenario may be an alternative method of understanding the variability in autonomy amongst the various sub-groups of employees.

It is important to note that although the number of employees responding was fairly large in total, around 300, the numbers in some sub-groups were small as the majority of the employees were working for the largest multiples.

Taking these factors into account, together with the Chi-Square values obtained it may be prudent to conclude that a clear association between organisational size and autonomy of employee pharmacists has not been demonstrated in this research.

5.5.5 Length of time qualified (years registered)

Information was sought in the questionnaire on the year of the respondents' registration with the RPSGB. From this the number of years registered as a

qualified pharmacist was derived. This enabled experience (as measured by amount of time registered) as a variable to be explored in order to assess its effects upon professional autonomy.

In order to make the data more manageable respondents were divided into four groups:

- Those registered between 0 and 9 years
- Those registered between 10 and 19 years
- Those registered between 20 and 29 years
- Those registered over 30 years

Table 5.19 shows the percentage of high autonomy responders for each scenario split down into the groups based upon length of time registered. The χ^2 level of probability is also shown in order to determine the significance of the differences found.

Table 5.19. Percentage of high autonomy responders, by length of time registered, for each scenario.

Scenario	Length of Time Registered in Years				χ^2
	0 – 9	10 – 19	20 – 29	30 +	
A n = 604	25.0	46.6	44.4	48.0	< 0.01
B n = 607	7.8	25.8	30.9	31.8	< 0.01
C n = 608	66.7	72.4	61.0	60.8	n.s.
D n = 602	75.0	70.4	69.9	66.9	n.s.
E n = 585	59.6	65.4	68.0	65.3	n.s.
F n = 588	30.5	43.5	39.8	42.8	n.s.
G n = 555	61.2	41.5	48.8	46.4	< 0.01
H n = 601	18.5	34.0	37.3	38.5	< 0.01
I n = 601	25.0	42.6	51.9	53.4	< 0.01
J n = 603	29.7	43.8	52.9	55.3	< 0.01
K n = 593	81.3	81.9	84.6	76.1	n.s.
L n = 591	51.6	57.2	55.2	55.9	n.s.

NB: the lowest percentage of high autonomy responders for each scenario is in bold print

As can be seen from the table above, length of time registered, which is synonymous with experience, does have some effect upon autonomy and in half of the scenarios; A,B,G,H,I and J the differences are significant at the 1% confidence level. With the other scenarios the differences are not significant, even at the 5% confidence level, and in these cases experience does not seem to be factor in the expression of autonomy.

It is of note that in 8 out of 12 scenarios the group exhibiting the lowest autonomy is that containing the least experienced pharmacists. This may suggest that low autonomy is associated with the early phase of professional practice after which it ceases to be such a major influence.

5.6 Binary Logistic Main Effects Model

Binary logistic main effects models may be used to illustrate how the effects of a number of variables impact. This is very important in cases where a number of variables may contribute to an observed outcome, as was discussed with respect to this research on p 49. For example if full and part-time working is being considered it is necessary to take account of the fact that that part-time work is more prevalent among female pharmacists. In order therefore to draw inferences about results from this group we need to know whether the result can be attributed to working pattern, or whether it is influenced by gender. In order to do this we need to be able to consider the effect of a single variate (working pattern) after excluding the effects from the other variates. Using binary logistics main effects modelling enables us to do this and it is an extremely useful technique in this situation.

This model has been employed to explore the effects of the following variables: full/part-time working, gender, years registered and occupational status, with respect to each of the scenarios. In this technique a base is selected for each of

the variables and an odds ratio calculated, for example in considering the impact of gender the base could be selected as male and the odds ratio would indicate how much more, or less, of a particular response (high autonomy) was elicited from females. An odds ratio of 1 would indicate no difference in high autonomy responses between the genders, an odds ratio of 2 would indicate that females were twice as likely to choose the high autonomy response. The other base variables used in this analysis were locum for occupational status and part-time for working pattern. With respect to the effect of experience as demonstrated by number of years on the register the effect of each additional year of registration upon autonomy was calculated with its statistical significance shown. The results are shown below in Table 5.20.

Table 5.20 Odds ratios: high autonomy - binary logistic main effects.

Base: Part-time, Male, Locum

Scenarios		FT/PT	Gender male/ female	Years reg (signifi- cance)	Status	
					employee / locum	contractor / locum
A	Parallel Imports	1.70*	1.05	*	1.25	13.14**
B	Staffing	1.74	0.57 ^(*)	-	1.09	94.51**
C	MDS Patient	1.99*	1.08	-	2.08**	4.64**
D	Calendar Packs	3.06**	1.45 ^(*)	-	1.48 ^(*)	3.63**
E	Dispensing Protocols	1.96**	1.08	^(*)	1.53 ^(*)	19.30**
F	MDS Home	1.84*	0.80	^(*)	2.83**	11.89**
G	Asthma Patient	1.64*	1.57*	-	1.41	0.90
H	Practice Research	1.77*	0.70	-	0.80	21.15**
I	Domicilliary Visiting	1.67*	0.96	*	0.69	30.40**
J	Prescribing Support	1.65*	1.05	*	0.52**	13.27**
K	Methadone	2.02**	0.72	-	3.45**	2.96**
L	Repeat Prescriptions	1.62*	0.75	-	1.78**	8.48**

** sig at 0.01 * sig at 0.05 ^(*) sig at 0.10

The binary logistics main effects model provides further evidence of the relationship between the independent variables studied and professional autonomy, as indicated by the respondent opting for the high autonomy response. The results contained in Table 5.20 can be considered with respect to each independent variable.

Full or part-time working: The initial bi-variate analysis had indicated that this was an important variable with respect to professional autonomy and this model reinforces that indication. For each of the scenarios the odds ratio is greater than 1. This means that pharmacists responders who work full-time recorded greater levels of high autonomy than part-time pharmacists. The odds ratios ranged from 1.62 on Repeat Prescriptions (Scenario L) to 3.06 on Calendar packs (Scenario D). The mean value from all twelve scenarios was 1.89. In the majority of cases the result was statistically significant at either 0.01 or 0.05, the only exception being seen with Staffing (Scenario B).

With respect to full or part-time working this model suggests that full-time pharmacists are more likely to choose high autonomy responses and that the difference between the two groups is statistically significant.

Gender: The initial bi-variate analysis had indicated differences between genders with respect to professional autonomy and there are further indications from this model. The high autonomy response seems to be linked to the individual scenario as the odds ratios range from 0.57 for Staffing (Scenario B), to 1.57 for Asthma Patient (Scenario G). The mean value from all twelve scenarios was 0.98. In seven of the scenarios the odds ratio is less than 1 indicating that females are less likely to choose the high autonomy option, however only one result is significant at the 0.05 level.

With respect to gender this model confirms that gender differences in professional autonomy do exist, that they are related to the scenario and that they are considerably less strong than those due to full or part-time working.

Experience: The initial bi-variate analysis indicated that experience, as evidenced by years of registration was not a major factor in the expression of professional autonomy. This model indicates that with respect to most of the scenarios experience is not significant statistically, however there are some

suggestions as to where it may come into play. Experience was a factor in responses to scenarios A, I, and J and to a lesser extent in scenarios E and F. These scenarios cover a range of situations and it is not clear why experience may be a factor in choosing the high autonomy option in these cases and not in others.

This model seems to indicate that experience is not universally related to the exercise of professional autonomy but is a factor in specific scenarios.

Occupational Status: The initial bi-variate analysis indicated that occupational status was extremely important with respect to the exercise of professional autonomy and this model confirms that finding. Results for the odds ratios for both employees and contractors (locums as base) are shown in Table 5.20.

Employees: The results for nine of the twelve scenarios suggest that employees were more likely to exercise high professional autonomy than locums, whereas in the remaining three it was the other way round. The odds ratios ranged from 0.52 for Prescribing Support (Scenario J) to 3.45 for Methadone (Scenario K). The mean value for all twelve scenarios was 1.58. A number of the results were significant statistically however it is important to note that in 7 cases significance at the 0.05 level was not attained.

Contractors: This model confirms the earlier bi-variate analysis which indicated that contractors exercise high levels of professional autonomy with respect to all scenarios except Asthma Patient (Scenario G). The odds ratios ranged from 0.90 to 94.51, with an arithmetic mean of 18.69 across all the scenarios. It is clear that contractor status is the most strongly linked factor to the exercise of professional autonomy.

Locums: As reported above, locums appear to exercise lower levels of professional autonomy than employees except in three scenarios: Practice Research, Domiciliary Visiting and Prescribing Support. In the case of Prescribing Support the result is statistically significant at the 0.01 level. When

locums are compared with contractors the differences are very considerable with locums exhibiting much lower levels of autonomy except in the case of the Asthma Patient scenario.

5.7 Summary

A number of variables have been examined to explore the effect, if any, upon the degree of professional autonomy recorded. A number of variables do appear to have some effect and these have been discussed above. The exposition of these variances is due to the sensitivity of the research instrument in collecting complex data and validates the work undertaken by the focus group on the design.

There is however one variable, occupational status, which seems to be most strongly related to autonomy. This is confirmation of the results gained during the piloting process and suggests that further, detailed analysis would be valuable in order to gain increased understanding of the relationship between occupational status and professional autonomy. This will be undertaken in the second results chapter.

Chapter 6: Results (II)

6.1 Principal Component Analysis and Factor Analysis

In this chapter use will be made of the techniques of principal component analysis and factor analysis, as discussed by Johnson and Wichern¹³¹ as ways of addressing research questions, developed in Chapter Three, concerned with the nature and measurability of the important but abstract concept of "autonomy".

The techniques of principal component analysis (PCA) and factor analysis (FA) are used in this chapter to address two, probably related, research questions concerning the empirical proposed "measuring instrument" of autonomy.

1. Can the 12 scenario-based questionnaire item responses be combined in some optimal manner to give a plausible single measure or index of autonomy or, failing this, to produce a small number of such indices?
2. Do the 12 manifest questionnaire item responses provide evidence of underlying dimensions or factors consistent with a hypothesised conceptual structure of autonomy?

The first question is explored using PCA, the second by employing a factor analytic method.

Principal component analysis involves a mathematical or statistical procedure that transforms a number of (possibly) correlated variables into a (smaller) number of uncorrelated variables called principal components. The first principal component accounts for as much of the variability in the data as possible, and each succeeding component accounts for as much of the remaining variability as possible. PCA can be used to discover or reduce the dimensionality of a data set and/or to identify new meaningful underlying variables. The transformations required are linear functions of the original variates and the principal component scores obtained are uncorrelated. Thus, if

the first component appears to "account" for ninety per cent, say, of the total variation (ie sum of the variances) of, in this case, the 12 scenarios, this component could be interpreted as some kind of index. Such indices are not necessarily meaningful in themselves in terms of the original variates, but may well be useful measurement devices.

Factor Analysis, on the other hand, attempts to identify meaningful underlying dimensions which appear to determine much of the observed variation in the directly measured or manifest responses. One approach is to "rotate" principal components such that, instead of identifying dimensions in terms of the total item variation, such dimensions are as consistent as possible with some underlying theoretical and hypothesised conceptual structure.

6.2 Initial Extraction

The first stage of the analysis, using the Statistical Package for Social Sciences¹³² (SPSS) is the initial extraction of the high autonomy responses from the scenarios to determine the correlation between responses. The results, displayed in the matrix below enable the correlations to be read off eg, looking at the cell in which the results of Q1 and Q2 are displayed the Pearson correlation is positive 0.39 and it is statistically significant from zero at the 0.01 level. The middle figure is the significance and the bottom figure the number of observations. The R displayed alongside the notation indicates that scoring for autonomy has been reversed for this procedure ie, so that a high value indicates high autonomy and a low value indicates low autonomy. This has been done to avoid confusion when interpreting the results as hitherto the results have been discussed in terms of high autonomy being represented by choosing option 1 on the questionnaire and low autonomy by choosing a higher numbered option for the response.

It can be seen from the matrix that in almost every case there is a positive correlation and most are statistically significant. Also displayed within this matrix are correlations for years registered against high autonomy responses and these do not generally have positive correlations, which is in agreement with previous findings for this variable.

Table 6.1 Correlation matrix

Matrix illustrating the correlation of high autonomy responses between scenarios

	Q1-1A-R	Q2-1B-R	Q3-1C-R	Q4-1D-R	Q5-1E-R	Q6-1F-R	Q7-1G-R	Q8-1H-R	Q9-1I-R	Q10-1J-R	Q11-1K-R	Q12-1L-R	No. of years registered in 1999
Q1-1A-R Pearson	1.000	.390**	.260**	.174**	.267**	.257**	.098*	.292**	.318**	.334**	.127**	.209**	.132*
Sig		.000	.000	.000	.000	.000	.021	.000	.000	.000	.002	.000	.001
N	613	604	605	600	585	589	553	600	600	601	591	592	604
Q2-1B-R Pearson	.390**	1.000	.144**	.230**	.301**	.391**	-.028	.437**	.460**	.419**	.102*	.265**	.119*
Sig			.000	.000	.000	.000	.504	.000	.000	.000	.013	.000	.003
N	613	617	608	602	587	589	554	602	603	603	593	592	607
Q3-1C-R Pearson	.260**	.144**	1.000	.252**	.093**	.379**	.237**	.229**	.194**	.166**	.233**	.234**	-.097*
Sig				.000	.000	.000	.000	.000	.000	.000	.000	.000	.016
N	605	608	617	605	588	595	558	603	603	604	595	593	608
Q4-1D-R Pearson	.174**	.230**	.252**	1.000	.339**	.210**	.057**	.172**	.228**	.164**	.220**	.313**	-.116*
Sig		.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.005
N	600	602	605	611	583	586	553	598	599	599	589	590	602
Q5-1E-R Pearson	.267**	.301**	.193**	.339**	1.000	.239**	.087*	.324**	.349**	.270**	.206**	.333**	.018
Sig		.000	.000	.000		.000	.044	.000	.000	.000	.000	.000	.672
N	585	587	588	583	595	576	541	585	583	583	575	573	585
Q6-1F-R Pearson	.257**	.391**	.379**	.210**	.239**	1.000	.178**	.350**	.420**	.308**	.199**	.289**	.016
Sig		.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.705
N	589	589	595	586	576	598	547	589	585	586	580	577	588
Q7-1G-R Pearson	.098*	-.028	.239**	.157**	.087*	.178**	1.000	.027	.038	.054	.202**	.129**	-.123*
Sig		.504	.000	.000	.044	.000		.532	.374	.202	.000	.002	.004
N	553	554	558	553	541	547	563	557	552	553	542	547	555
Q8-1H-R Pearson	.292**	.437**	.229**	.172**	.324**	.350**	.027	1.000	.552**	.450**	.184**	.368**	.108**
Sig		.000	.000	.000	.000	.000	.027		.000	.000	.000	.000	.008
N	600	602	603	598	585	589	611	602	601	591	591	591	601
Q9-1I-R Pearson	.318**	.460**	.194**	.228**	.349**	.420**	.038	.552**	1.000	.640**	.104*	.386**	.105**
Sig		.000	.000	.000	.000	.000	.532	.000		.000	.012	.000	.010
N	600	603	603	599	583	585	611	602	601	603	590	589	601

Matrix illustrating the correlation of high autonomy responses between scenarios – continued from previous page

	Q1-1A-R	Q2-1B-R	Q3-1C-R	Q4-1D-R	Q5-1E-R	Q6-1F-R	Q7-1G-R	Q8-1H-R	Q9-1I-R	Q10-1J-R	Q11-1K-R	Q12-1L-R	No of years registered in 1999
Q10-1J-R Pearson Sig N	.334** .000 601	.419** .000 603	.166** .000 604	.164** .000 599	.270** .000 583	.308** .000 586	.054 .202 553	.450** .000 601	.640** .000 603	1.000 612	.094* .023 592	.391** .000 593	.159** .000 603
Q11-1K-R Pearson Sig N	.127** .002 591	.102* .013 593	.233** .000 595	.220** .000 589	.206** .000 575	.199** .000 580	.202** .000 542	.184** .000 591	.104* .012 590	.094* .023 592	1.000 602	.283** .000 584	-.056 .173 593
Q12-1L-R Pearson Sig N	.209** .000 592	.265** .000 592	.234** .000 593	.313** .000 590	.333** .000 573	.289** .000 577	.129** .002 547	.368** .000 591	.386** .000 589	.391** .000 593	.283** .000 584	1.000 600	-.046 .264 591
Number of years registered in 1999	.132** .001 604	.119** .003 607	-.097* .016 608	-.116** .005 602	.018 .672 585	.016 .705 588	-.123** .004 555	.108** .008 601	.105** .010 601	.159** .000 603	-.056 .173 593	-.046 .264 591	1.000 616

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

As briefly discussed on p129, the matrix which begins on p131 and continues above, depicts the correlation between the high autonomy responses received. For example if the correlation between high autonomy responders for one scenario is made with the same scenario the correlation is total and is shown as 1.000. This situation is highlighted in the cell picked out in green, here the correlation is made between high autonomy responders to Scenario K and Scenario K.

In the next cell, picked out in blue the correlation between high autonomy responders to Scenario K and Scenario L. In this case it can be seen that the correlation is less than 1.000 indicating that not all high autonomy responders to Scenario K were high autonomy responders to Scenario L. In this case the correlation is shown as 0.283, the top figure in the cell. This indicates a positive relationship. The number of observations contributing to this result is shown as 584, and the result is statistically significant at the 0.01 level i.e. the correlation is statistically significant from 0.00 (no relationship)

Following on from the correlation matrix the initial statistics for the PCA can be extracted and displayed in the form shown below:

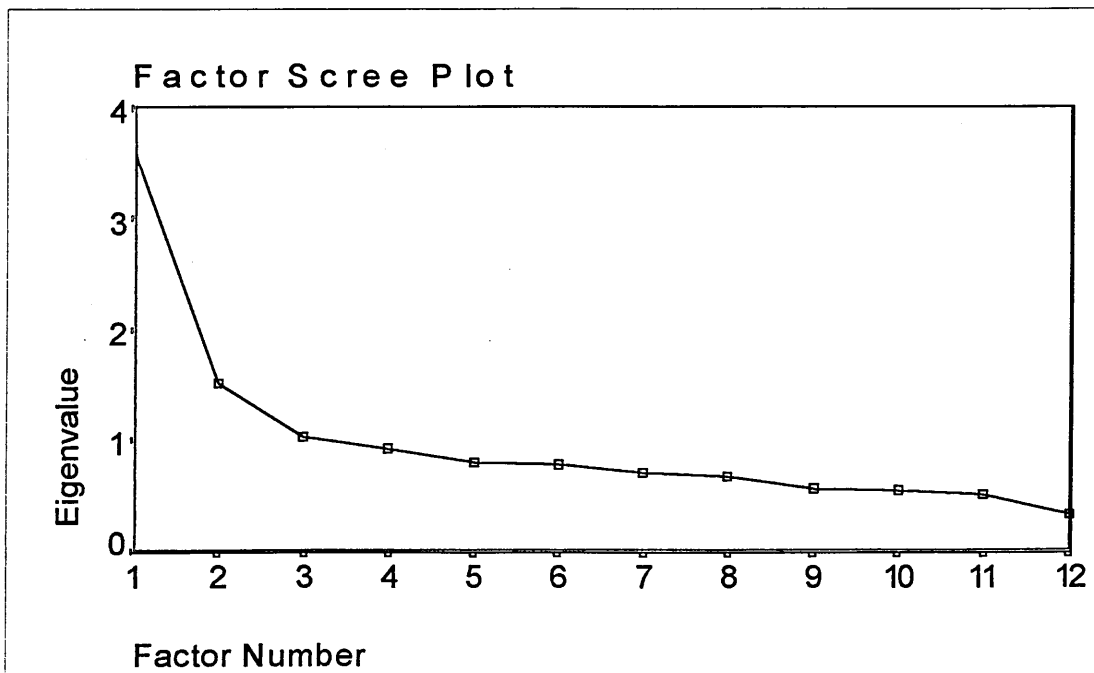
Table 6.2 Initial statistics for principal components

Variable	variance	component	variance	Pct of Var	Cum Pct
Q1_1A	1.00000	1	3.58631	29.9	29.9
Q2_1B	1.00000	2	1.51431	12.6	42.5
Q3_1C	1.00000	3	1.04132	8.7	51.2
Q4_1D	1.00000	4	.92690	7.7	58.9
Q5_1E	1.00000	5	.81064	6.8	65.7
Q6_1F	1.00000	6	.77603	6.5	72.1
Q7_1G	1.00000	7	.71026	5.9	78.0
Q8_1H	1.00000	8	.67261	5.6	83.7
Q9_1I	1.00000	9	.57167	4.8	88.4
Q10_1J	1.00000	10	.54870	4.6	93.0
Q11_1K	1.00000	11	.51536	4.3	97.3
Q12_1L	1.00000	12	.32588	2.7	100.0

From the table it can be seen that three components appear to account for 51.2% of the variation

This information is presented graphically below in terms of a scree plot:

Figure 6.1 Scree Plot using SPSS



Here SPSS labels the components as factors and their variances as eigenvalues. This initial analysis has suggested that three components are responsible for the majority of the variation recorded, therefore they will be examined in order to try and increase understanding of the situation. The convention is to retain those components with variances greater than unity. The three principal components have been extracted and their loadings or linear coefficients are displayed in the matrix below, together with the scenarios to which they relate. The greatest values are highlighted in bold.

Table 6.3. Component loadings matrix

	Factor Component 1	Factor Component 2	Factor Component 3
Q1_1A	.52300	-.04939	-.05592
Q2_1B	.57710	-.34441	.03574
Q3_1C	.44767	.47743	-.38619
Q4_1D	.43557	.30918	.53508
Q5_1E	.56984	.05608	.50937
Q6_1F	.58870	.12978	-.45913
Q7_1G	.17723	.63700	-.19020
Q8_1H	.65528	-.22248	-.11483
Q9_1I	.74649	-.33875	-.09434
Q10_1J	.66603	-.35256	-.08656
Q11_1K	.33064	.57299	.09325
Q12_1L	.60807	.16460	.23823

From the matrix it can be seen that component 1 is most strongly associated with eight of the scenarios: A,B,E,F,H,I,J & L. component 2 is most strongly associated with three of the scenarios: C,G & K, and component 3 is most strongly associated with scenario D.

The interpretation of this finding is centred around dimensions of the 12 scenario measures of autonomy which are represented by each of the principal components. Each of these represents some dimension of autonomy in terms of the original variance. However it is not possible to establish definitively what these are. One possible approach is by consideration of the scenarios to see if there is any degree of commonality between those associated with each principal component (PC), and what is different about those scenarios which are not most strongly associated with PC1.

6.3 Observations on the Scenarios

The most striking feature of the group of scenarios that are associated with PC2 is that they all relate directly to individual patients. In Scenario C the pharmacist is dealing with a patient who needs an MDS system, in Scenario G

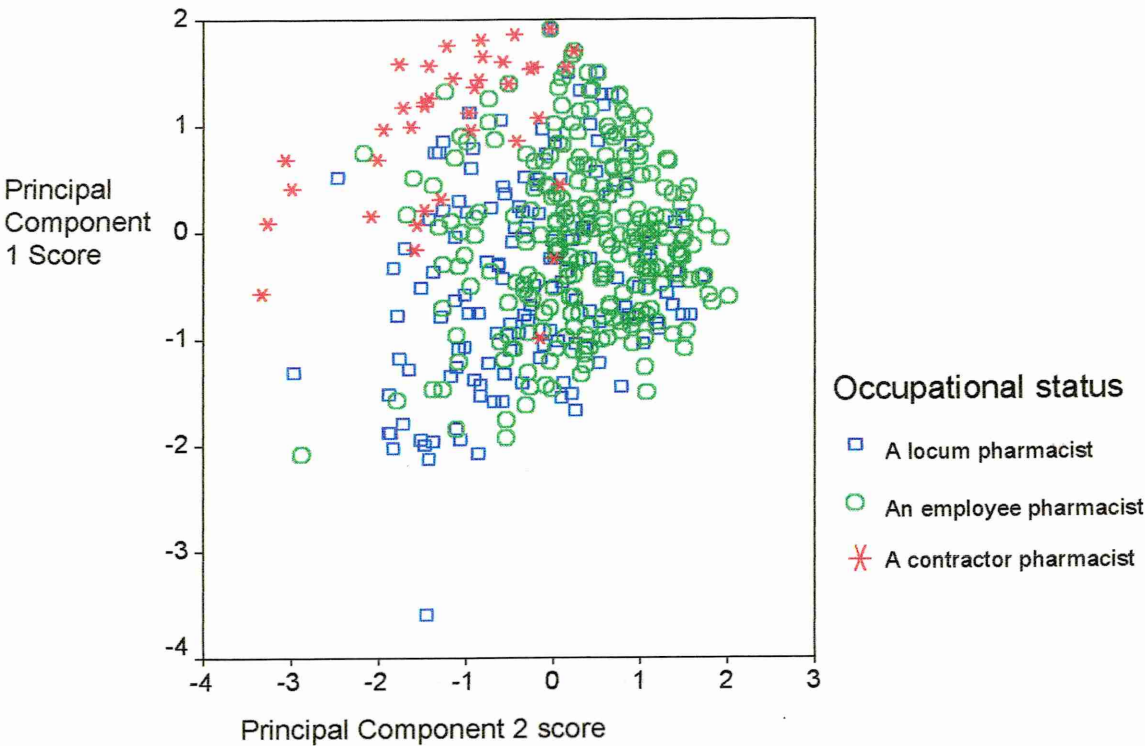
pharmacist is dealing with a patient who needs particular asthma medication and in Scenario K the pharmacist is dealing with a patient who needs methadone dispensed.

The scenario associated with PC3 is Scenario D which is concerned with how prescriptions are dispensed ie whether calendar packs should be used, or exact quantities.

The scenarios associated with PC1 comprise a number of themes, including resources, professional policy and commercial policy.

In order to further explore these dimensions of, or combined measures of, autonomy represented by the principal components the PC1 value was plotted against the PC2 value for key attributes including occupational status, gender, years registered and full and part-time working.

Figure 6.2 Scatterplot of principal component scores by occupational status

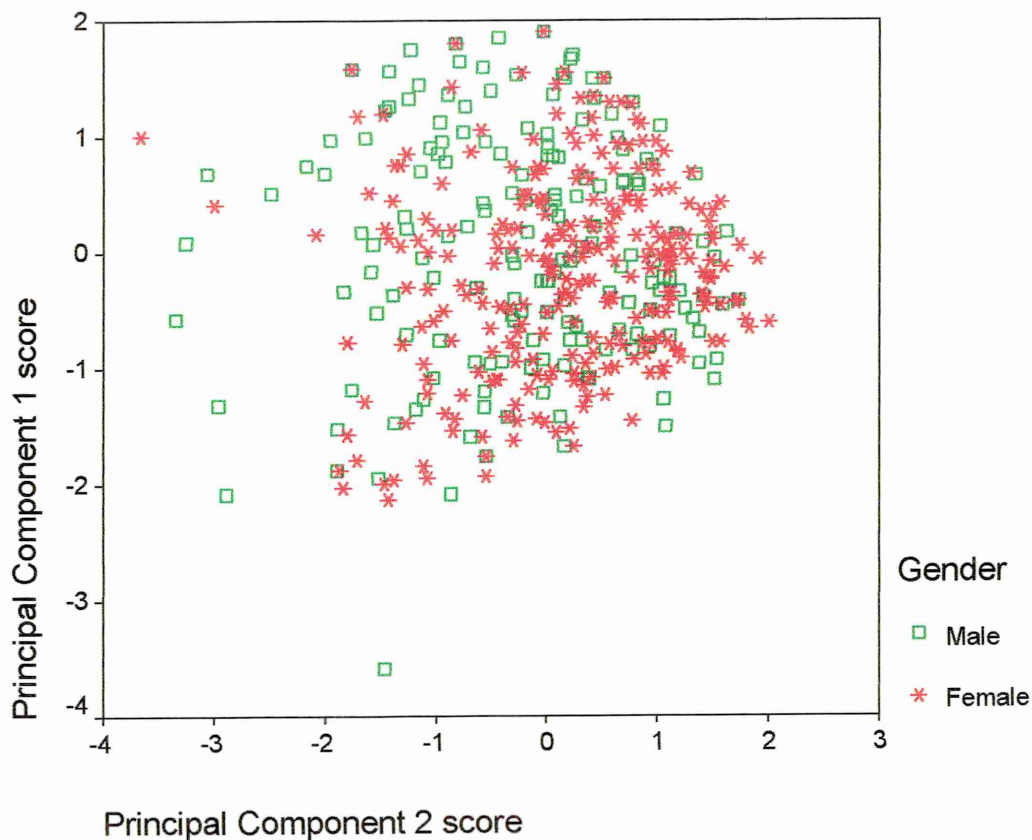


The scatterplot appears to indicate some separation of the occupational groupings, in particular:

- Contractors appear to score high on PC1 but low on PC2.
- Employees appear to score lower on PC1 than contractors but higher on PC2.
- Locums appear to score lower on both dimensions.

	Contractors	Employees	Locums
PC1	High	Low	Low
PC2	Low	High	Low

Figure 6.3 Scatterplot of principal component scores by gender



With regard to gender PC2 appears to differentiate between the sexes, with male pharmacists clustered more towards low PC2 scores and females towards high.

6.4 Error Bar Charts

The situation can be further explored by plotting each principal component showing the error bars for the 95% confidence limit ie, these show the mean score and the 95% confidence interval for each subgroup. Error bars used in this way are used to give a quick visual representation of statistical significance. If the 95% confidence interval error bars of two or more results, do not overlap we can be sure that the differences between them are statistically significant ($P < 0.05$). However the converse is not true as you may or may not have

statistical significance when the 95% confidence intervals overlap. A number of subgrouping attributes will be treated in this manner.

6.4.1 Occupational status

The chart shown in Figure 6.4 depicts the situation with respect to occupational status.

- Contractors exhibit high PC1 and low PC2 with intermediate level PC3
- Employees exhibit high PC2 and low PC1 with intermediate level PC3
- Locums exhibit low PC1, PC2 and PC3, with PC3

It is interesting to note however that both employees and locums exhibit higher levels of PC2 than contractors, and that PC3 levels do not appear to be affected by occupational status and are found at similar levels across the occupational groupings.

Figure 6.4 Errorbar of principal component scores by status

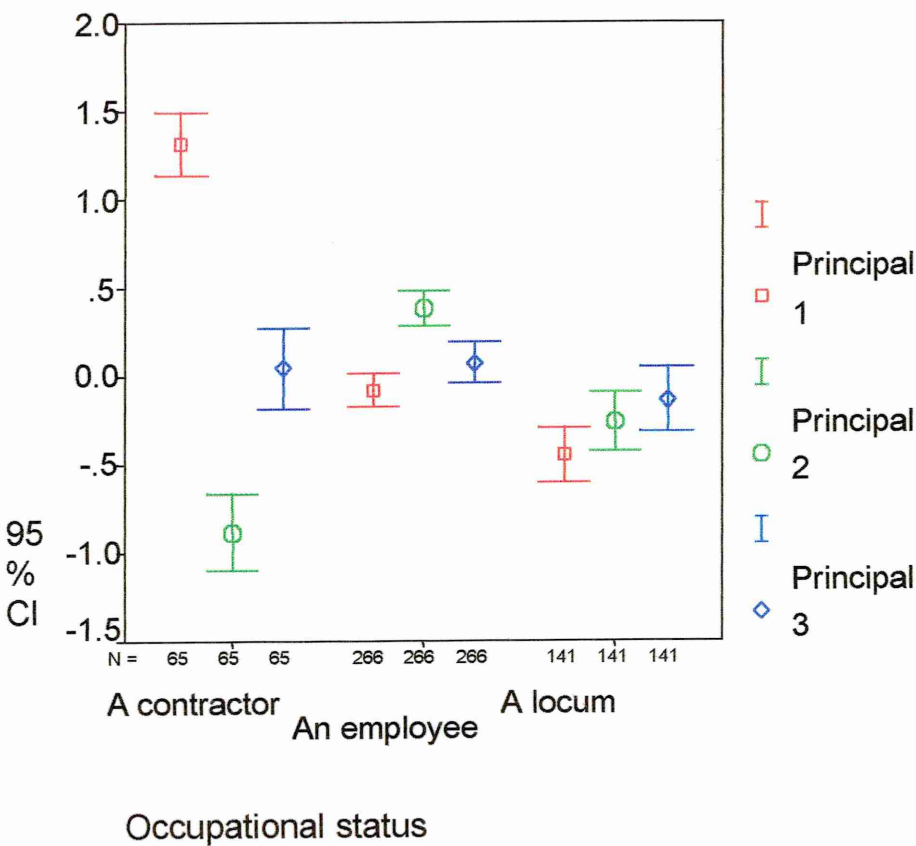
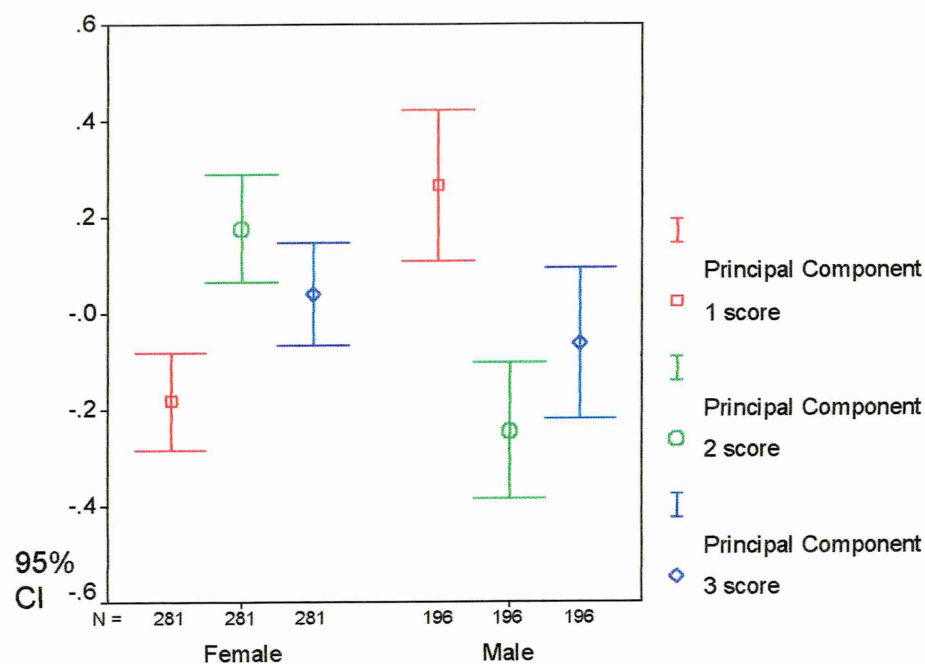


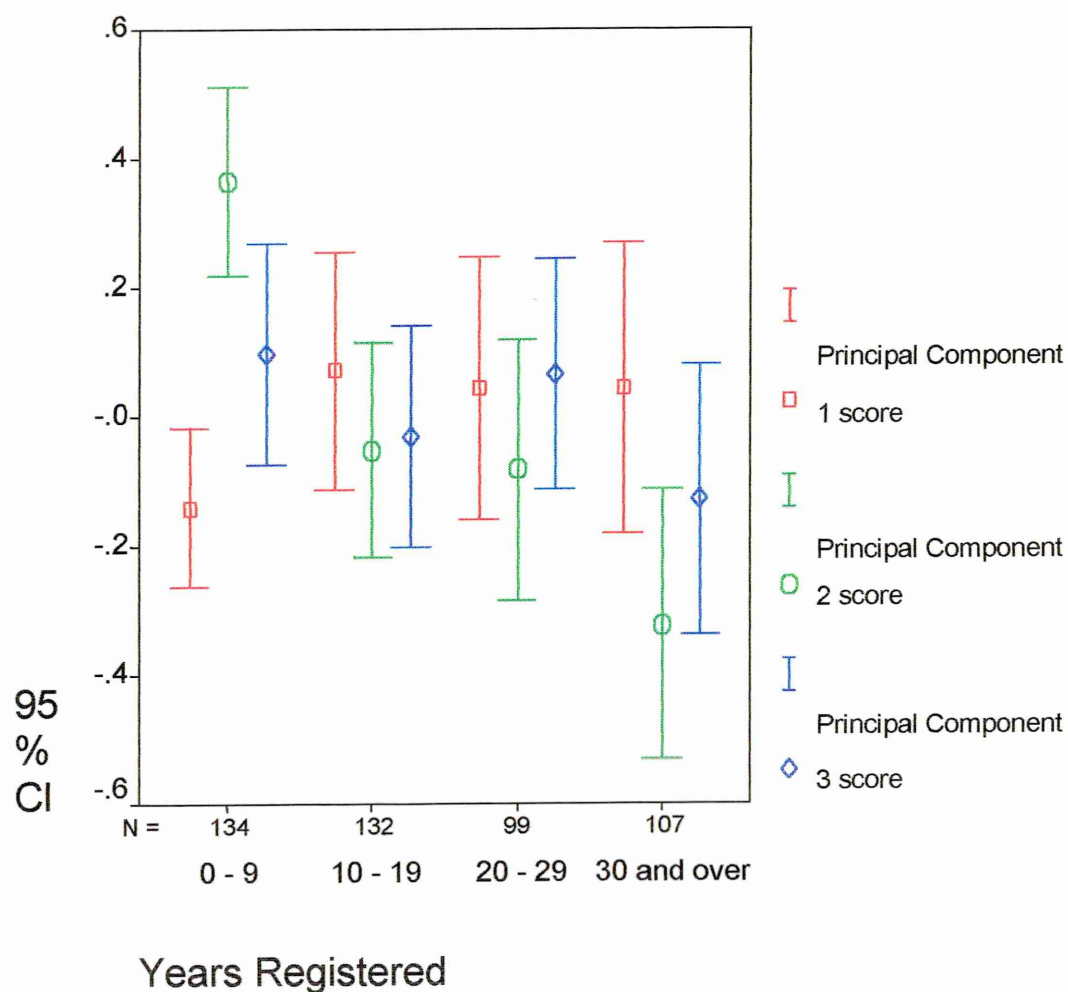
Figure 6.5 Principal component scores by gender



6.4.2 Gender

The error bar chart depicting principal components and gender illustrates that female pharmacists have high PC2 scores and low PC1 scores with intermediate PC3 scores. Male pharmacists have high PC1 scores with low PC2 scores and intermediate PC3 scores.

Figure 6.6 Principal component scores by years registered



6.4.3 Years registered

The error bar chart depicting principal components and years registered illustrates that for the greater part of the age range there is not a significant degree of separation of the principal component scores. There are however two indications of a degree of separation, these are:

- (i) Pharmacists registered between 0 and 9 years who had high PC2 scores compared with their PC1 scores. (ii) Pharmacists registered for 30 years and over who exhibited a lower range of PC2 scores.

There is therefore an indication that PC2 scores decline with increasing period of practice, but that this decline is not uniform, the pattern being high levels with

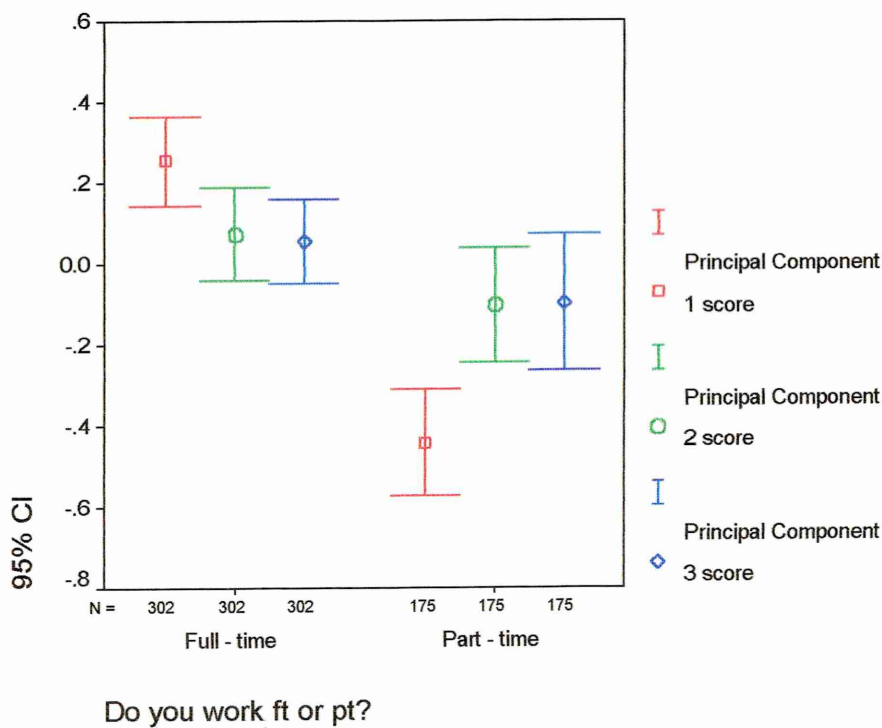
inexperienced pharmacists, fairly constant levels over the majority of the working lifetime and a decline towards the end.

6.4.4 Full or part-time working

Full-time working pharmacists exhibited high scores for PC1 with slightly lower scores for both PC2 and PC3.

Part-time working pharmacists exhibited (very) low scores for PC1 with somewhat higher scores for PC2 and PC3

Figure 6.7 Principal component scores by full or part-time working



6.4.5 PC1 higher scores

The results obtained suggest that where PC1 scores are higher than PC2 scores there is an association with:

- Being a contractor pharmacist
- Being a male pharmacist
- Being a full-time pharmacist

In addition higher PC1 scores are associated with scenarios:

- A Parallel Imports
- B Staffing
- E Dispensing Protocol
- F MDS Residential Home
- H Practice Research
- I Domiciliary Visiting
- J Prescribing Support
- L Repeat Prescriptions

6.4.6 PC2 higher scores

The results obtained suggest that where PC2 scores are higher than PC1 scores there is an association with:

- Being an employee pharmacist
- Being a female pharmacist
- Being registered between 0 and 9 years
- Being employed as a part-time pharmacist

In addition higher PC2 scores are associated with scenarios:

- C MDS Patient
- G Asthma Patient
- K Methadone Patient

6.4.7 PC3 higher scores

The results with respect to PC3 scores are more ambiguous although in the most of the cases examined the PC3 score was more closely allied with the PC2 score. This was not universally the case however eg, with occupational grouping a separation was observed between PC2 and PC3 for contractors and employees.

A higher PC3 score was associated with only one scenario:

D Calendar Packs

6.5 Varimax (Orthogonal) Rotated Factor Matrix

In order to attempt to explore the data further the varimax rotated factor matrix was calculated. The Varimax rotation¹³³ is a maximum variance rotation of the principal component vectors. Varimax rotation may be described as a procedure that, given a subspace or projection, selects a new basis for it that maximises the variance but gives large loadings to as few variables as possible. The projection will be mainly explained by a few variables and thus be easier to interpret. This factor analytic approach facilitates an attempt to explore an interpretation of the dimensions of autonomy in terms of a more theoretical perspective.

The results obtained are listed below.

Table 6.4 Varimax (orthogonal) rotated factor matrix:

	Factor 1	Factor 2	Factor 3
Q1_1A	.47121	.16605	.17173
Q2_1B	.64204	-.09691	.17701
Q3_1C	.22513	.72507	.03298
Q4_1D	.07102	.13175	.74110
Q5_1E	.29962	-.01927	.68904
Q6_1F	.53532	.53076	-.07702
Q7_1G	-.12770	.66406	.12678
Q8_1H	.68257	.10158	.12593
Q9_1I	.81156	.02945	.14629
Q10_1J	.75008	-.01283	.11226
Q11_1K	-.03904	.52519	.41108
Q12_1L	.36040	.22118	.52420

The highest value is highlighted in bold.

Factor 1, the first rotated principal factor (VPC1) is associated with scenarios: A, B, F, H, I & J.

Factor 2, the second is associated with scenarios: C, G, & K.

Factor 3, the third is associated with scenarios: D, E, & L.

This exploration builds upon the initial analysis and provides some basis for discussing linkages between the scenarios and the principal components.

These are initially summarised in Figures 6.8 – 6.10 on pages 147 –148.

Figure 6.8 VPC1 and scenarios

Scenario		Process	Outputs
A	Parallel Imports	Decision making in a commercial and professional policy context, requiring high levels of authority	Commercial policy affecting the organisation and impacting upon a number of patients
B	Staffing	Decision making in a commercial policy context, requiring high levels of authority	Commercial policy affecting the organisation and impacting upon a number of patients
F	MDS Residential Home	Decision making in a commercial and professional policy context, requiring high levels of authority	Commercial policy affecting the organisation and impacting upon a number of patients
H	Practice Research	Decision making in a professional policy context, requiring some degree of authority	Professional policy affecting the organisation
I	Domiciliary Visiting	Decision making in a professional practice context, requiring authority and expertise	Professional policy affecting the organisation, the pharmacist undertaking the work and impacting upon a number of patients
J	Prescribing Support	Decision making in a professional practice context, requiring authority and expertise	Professional policy affecting the organisation and the pharmacist undertaking the work and impacting on a number of patients

Figure 6.9 VPC2 and scenarios

Scenario		Process	Outputs
C	MDS Patient	Decision making in a mainly professional practice context	Service provision to the affected patient
G	Asthma Patient	Decision making in a mainly professional practice context	Service provision to the affected patient
K	Methadone Patient	Decision making in a mainly professional practice context	Service provision to the affected patient

Figure 6.10 VPC3 and scenarios

Scenario		Process	Outputs
D	Calendar Packs	Decision making in a professional context, concerned with the dispensing of prescriptions	Professional policy impacting upon the service provision to a number of patients
E	Dispensing Protocol	Decision making in a professional context, concerned with the dispensing of prescriptions	Professional policy impacting upon the service provision to a number of patients
L	Repeat Prescriptions	Decision making in a professional and commercial context, concerned with the dispensing of prescriptions	Professional policy impacting upon the service provision to a number of patients

The summary of principal components with respect to the scenarios suggests VPC1 appears to be linked to high authority decision making at the organisational level which has as its outputs professional or commercial policy for the organisation. This policy impacts upon all of the organisation's patients who use a particular service. Linking back to the revised model of professional autonomy developed in Chapter Four this may correspond with the pharmacist being able to act primarily "in authority" since this type of decision making commits the organisation.

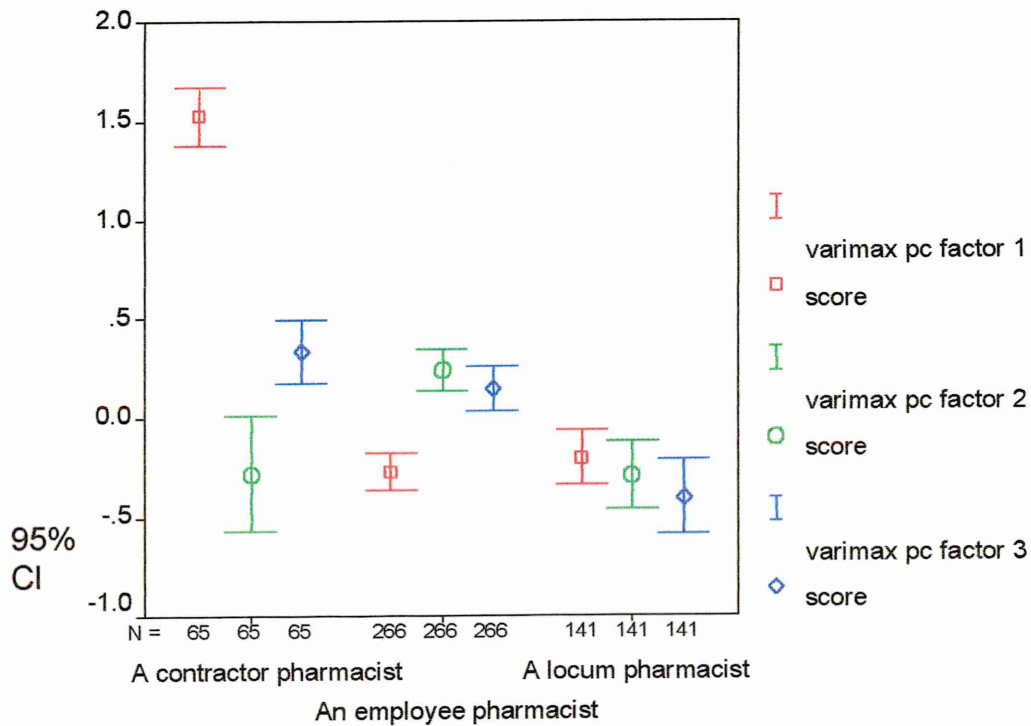
VPC2 appears to be linked to professional decision making at the level of the individual patient. The output impacts only upon the individual patient seeking the service. Linking back to the revised model of professional autonomy developed in Chapter Four this may correspond with the pharmacist being able to act primarily as "an authority" as these scenarios are patient based and require the pharmacist to utilise their professional training to deal with a particular patient centred episode.

VPC3 appears to be linked to the process of dispensing prescriptions. The outputs ie, how prescriptions are dispensed impact upon all patients who use the dispensing service. Potentially this may be linked to the pharmacist acting as "an authority" in determining the appropriate professional action to take with regard to the prescription centred event and then acting "in authority" in order to determine professional policy which impacts upon users of the service.

6.6 Error Bar Charts of Varimax Principal Factors

As with the previous analysis error bar charts were produced to illustrate the varimax rotated findings for each of the background variables ie occupational status, gender, years registered and full or part-time working.

Figure 6.11 Varimax principal component factor scores by occupational status.



6.6.1 Occupational status

The varimax PC results for this variable are very similar to those discussed in relation to the initial principal component analysis.

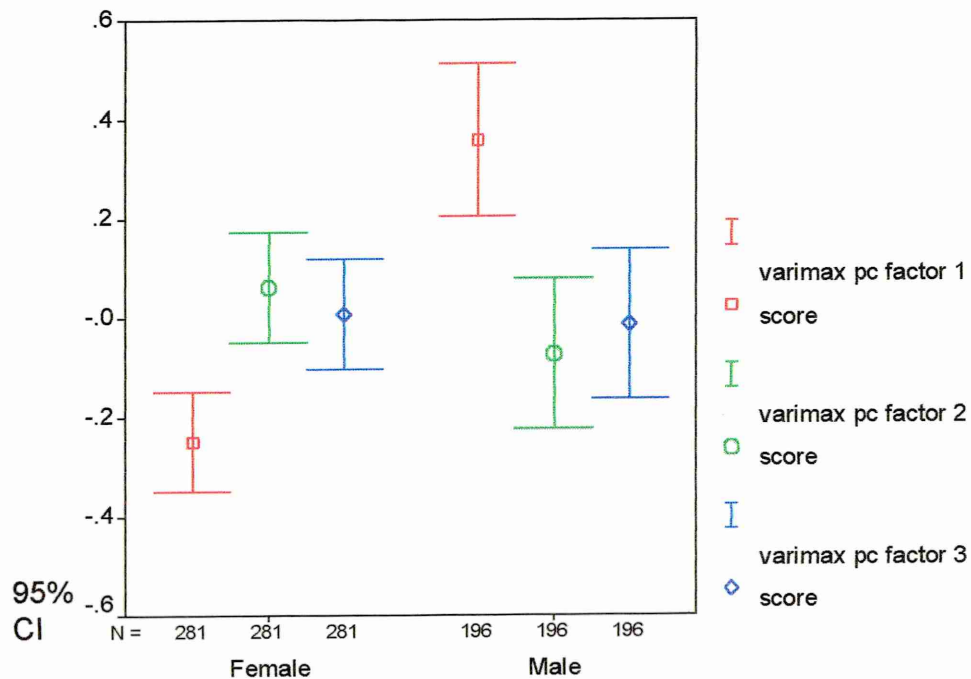
Contractor pharmacists exhibited very high VPC1 scores and low VPC2 scores. VPC3 scores were intermediate between those found for the other two VPC's

Employees exhibited low VPC1 scores but their VPC2 scores were higher than those found with contractors or locums. VPC3 scores for employees were similar to the VPC2 values i.e. higher than the VPC1 score.

Locums exhibited low scores for each VPC.

6.6.2 Gender

Figure 6.12 Varimax principal component factors by gender.



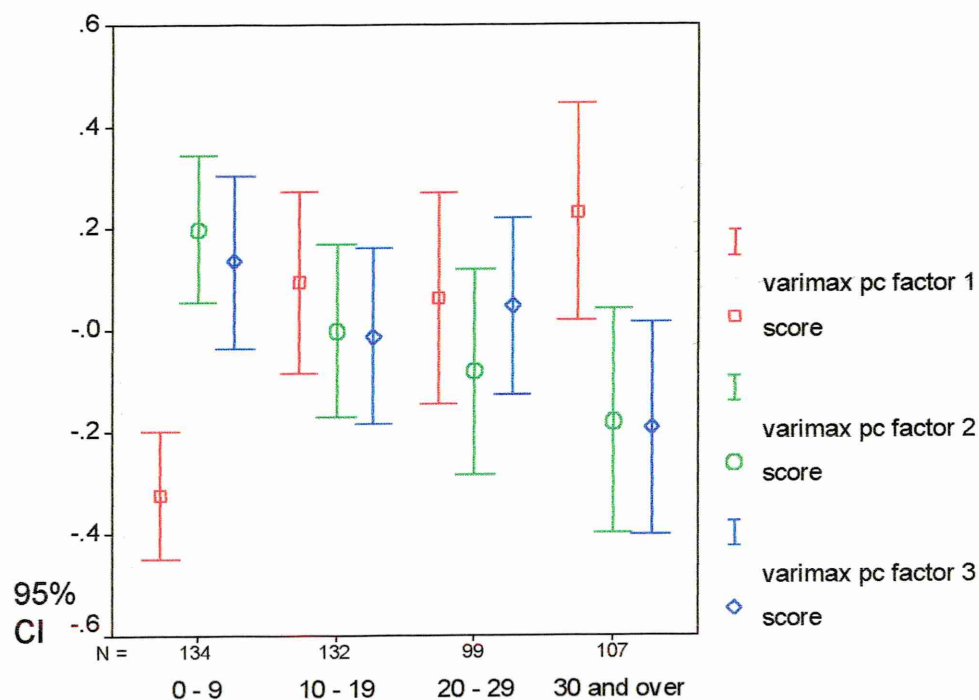
The varimax PC scores for this variable are very similar to those discussed in relation to the initial principal component analysis.

Male pharmacists exhibited very high VPC1 scores and low VPC2 scores. VPC3 scores were intermediate between those found for the other two VPC's

Female pharmacists exhibited low VPC1 scores but their VPC2 scores were higher than those found with contractors or locums. VPC3 scores for female pharmacists were similar to the VPC2 values ie higher than the VPC1.

6.6.3 Years registered

Figure 6.13 Varimax principal component factor by years registered.



The varimax PC scores for this variable are very similar to, but not identical with, those discussed in relation to the initial principal component analysis.

The error bar chart illustrates that for the greater part of the age range there is not a significant degree of separation of the principal component scores. There are however two indications of a degree of separation, these are:

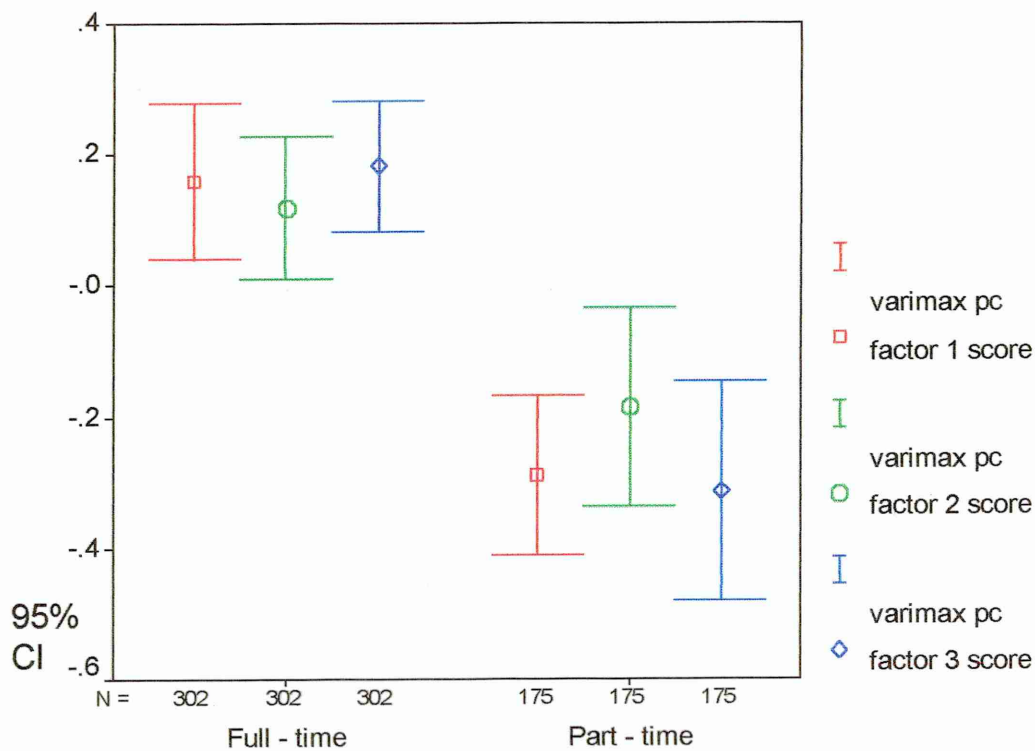
Pharmacists registered between 0 and 9 years who had high VPC2 scores compared with their VPC1 scores.

Pharmacists registered for 30 years and over who exhibited a higher VPC1 score.

There is therefore an indication that VPC2 scores decline with increasing period of practice, but that this decline is not uniform, whereas VPC1 scores tend to rise with increasing period of practice.

6.6.4 Full or part-time working

Figure 6.14 Varimax component factor by full or part-time working



The varimax PC scores for this variable are similar to, but not identical with, those discussed in relation to the initial principal component analysis.

Full-time working pharmacists exhibited high and very similar scores for each of the VPC's.

Part-time working pharmacists exhibited low and very similar scores for each of the VPC's.

This pattern contrasts with the initial principal component analysis with regard to PC1 which demonstrated more extreme values in that it was higher than the other PC's for full-time working pharmacists and lower than the other PC's for part-time working pharmacists.

6.6.5 VPC1 higher scores

The results obtained suggest that where VPC1 scores are higher than VPC2 scores there is an association with:

- Being a contractor pharmacist
- Being a male pharmacist
- Being a full-time pharmacist

In addition higher VPC1 scores are associated with scenarios:

- A Parallel Imports
- B Staffing
- F MDS Residential Home
- H Practice Research
- I Domiciliary Visiting
- J Prescribing Support

This group of scenarios will be allocated the label type 1.

6.6.6 VPC2 higher scores

The results obtained suggest that where VPC2 scores are higher than VPC1 scores there is an association with:

- Being an employee pharmacist
- Being a female pharmacist
- Being registered between 0 and 9 years
- Being employed as a part-time pharmacist

In addition higher VPC2 scores are associated with scenarios:

- C MDS Patient
- G Asthma Patient
- K Methadone Patient

This group of scenarios will be allocated the label type 2.

6.6.7 VPC3 higher scores

The results with respect to VPC3 scores are more ambiguous although in the most of the cases examined the VPC3 score was more closely allied with the VPC2 score. This was not universally the case however eg, with occupational grouping a separation was observed between PC2 and PC3 for contractors but not for employees or locums.

A higher VPC3 score was associated with scenarios:

- D Calendar Packs
- E Dispensing Protocol
- L Repeat Prescriptions

This group of scenarios will be allocated the label type 3.

6.7 Summary

These analyses suggest that each of the three components explored is linked to a dimension of professional autonomy in the practice setting.

The first component appears to link with decision making which requires high authority at the organisational level. This may map to the pharmacist acting primarily “in authority” as depicted in the revised model of professional autonomy developed in Chapter 4. This dimension is associated with decision making which has as its outputs, professional or commercial policy for the organisation. This policy, once determined will potentially impact upon all of the organisation’s patients or clients who use a particular service and hence is likely to have profound consequences for the organisation. It is therefore only likely to be determined by individuals who have the necessary level of authority in the organisation.

This research suggests that within the pharmacist groupings examined, this attribute is most powerfully expressed by contractor pharmacists, male pharmacists, and pharmacists who work full-time.

VPC2 appears to link with professional decision making at the level of the individual patient. This requires the pharmacist to act primarily as “an authority” in accessing the patient’s needs. The pharmacist’s response requires acting “in authority” in order to translate their assessment into a response in which the patient’s needs are met. This output however impacts only upon the individual patient seeking the service, and so therefore the need to act “in authority” is minimised, as the organisation is not necessarily being committed to a policy which will have profound consequences.

This research suggests that within the pharmacist groupings examined this attribute is powerfully expressed by employee pharmacists, female pharmacists, recently registered pharmacists (0 – 9 years) and pharmacists who work part-time.

VPC3 appears to be linked to professional decision making and in particular the process of dispensing prescriptions. The outputs i.e how prescriptions are dispensed impacts upon all patients who use the dispensing service offered. This suggests that the pharmacist is both acting as “an authority” in determining the way in which the service should be configured, and acting “in authority” in providing the service in that way. The output is therefore a policy relating to an aspect of dispensing and potentially affects all patients who access the particular service eg, take medicines that are manufactured in calendar packs. The consequences of this type of professional policy decision may be significant for the organisation, for example if there was conflict between the policy determined and that of the RPSGB. In addition because of the commercial environment in which professional pharmacy services are provided there is the potential for a commercial downside to a professional policy decision.

This research suggests that within the pharmacist groupings examined this attribute is expressed more powerfully by contractors and employees than by locums, is unaffected by gender, only slightly influenced by years of registration (slight downward trend) and higher in full-time working pharmacists than part-timers.

The techniques of factor analysis utilised have enabled a richer picture to be built up of the dimensions of professional autonomy in the practice setting and this enhanced understanding appears to link with and be supportive of the model of professional autonomy developed in Chapter 4.

Chapter 7 Discussion

This chapter will contain a detailed discussion of the results obtained from the deployment of the scenario-based questionnaire, initially this will be with reference to each scenario and the conceptual model of the three agendas. Following on from this will be a discussion centred around the results pertaining to the independent variables, considered to affect the expression of professional autonomy. This will lead into an assessment of the degree to which the research questions developed in Chapter Three have been addressed. Finally a number of conclusions will be presented and a recommendation made, together with a critique of the limitations of the work and suggestions for how knowledge in this field could be further advanced.

7.1 Scenario A: Parallel Imports

As detailed in Chapter Four, the main forces in this scenario may be considered to be the commercial agenda, pitted against the professional agenda. The public agenda is not powerfully expressed but does inform the context of the scenario.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate considerable variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated high autonomy, employees and locums indicated considerably less.
- Male pharmacists indicated similar levels of autonomy to female pharmacists after exclusion of other factors.

- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Employee pharmacists working in large multiples indicated the lowest levels of autonomy and those working in small groups the highest.
- Pharmacists who had been on the register for the shortest period exhibited the lowest levels of autonomy whereas those registered 30 years and over exhibited the highest.
- Using the classification of scenarios developed using factor analysis this is a type 1 scenario.

With respect to the varimax principal component (VPC) analysis undertaken, scenario A appears to be associated with the first rotated principal component VPC1. From an analysis of the processes and outputs within the scenarios this aspect of autonomy links with high authority decision making at the level of the organisation, which impacts upon commercial policy. In the context of the revised model of autonomy developed in Chapter 4 (p.63) this links strongly to the pharmacist being able to act primarily “in authority”. This appears to correspond with the summary of results above, which indicate:

- That inexperienced pharmacists are less able to exercise professional autonomy in this situation than are experienced colleagues: Arguably they may lack the status to act in authority that is associated with experience.
- That pharmacists working in the largest organisations were less able to exercise professional autonomy in this situation than were those in smaller organisations: The determination of commercial policy in larger organisations is likely to require a very high degree of authority. This may well be due to the size of the potential consequences for large organisations.
- That pharmacists in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions: Higher levels of authority, whether formalised or not, may be associated with full-time positions.

- That although female pharmacists appeared less able to exercise professional autonomy in this situation than males, this difference was not evident when multivariate analysis was used to exclude the effect of other factors such as, occupational status, part-time working and experience.
- That employees and locums were less able to exercise professional autonomy in this situation than contractors – contractors would be expected to be able to act in authority with regard to their own practices. Employees and locums appear not to be able to do so to the same extent. The odds ratio value obtained from the binary logistic main effects model indicates that contractors are over thirteen times more likely to choose the high autonomy response, than are locums. This considerably inhibits their ability to exercise professional autonomy in this scenario.

This scenario presents pharmacists with a situation in which they acknowledge that the parallel imports are not of acceptable quality and should not continue to be issued to patients. There may well be commercially advantageous reasons to use these products but the scenario has taken the pharmacist to the point of acknowledging that they should no longer be used. In this case therefore, the pharmacist can exhibit a high autonomy response if they are able to discontinue the use of these unacceptable products. If they choose this response they will be acting in accordance with the Code of Ethics in having the welfare of their patients as their prime concern, and not supplying any medicine where they have any reason to doubt its safety, quality or efficacy. This being the case it might be anticipated that the professional agenda would be dominant with practitioners and that they would respond by choosing the high autonomy response. However the results summarised above indicate an extremely wide variation in practice. This may be interpreted by considering to what extent the respondents are constrained from exercising the high autonomy response associated with the professional agenda by the impact of the other main force, the commercial agenda.

Contractors seem able to resist the commercial agenda in this scenario, this is in spite of the fact that as operators of the business they may benefit from the commercial advantages of using these parallel imports. As independent practitioners however, they are directly responsible for the standards of their practice and they may be acutely aware of the risks involved in continuing to use unacceptable products.

Employees, especially those with little experience and working for large organisations do not seem able to exhibit high autonomy with respect to this scenario. A possible interpretation may be that where a purchasing decision has been taken by an organisation for commercial reasons this is accepted by those organisations' professional employees. Thus the commercial agenda is so powerfully expressed that it constrains the employee pharmacist from opting for the high autonomy response in accordance with the professional agenda. This must be of concern as patients could well be put at risk as their interests are swamped by the force of the commercial agenda.

Locums exhibit lower levels of professional autonomy with respect to this scenario. This may be because, as with employees, they do not feel able to resist the purchasing decision of the organisation that is temporarily employing them. Once again this must be a matter of concern as the potential for risk to patients could be important.

As has been stated the employees and locums who are not acting in accordance with the professional agenda are potentially placing their patients at risk, however this does not seem to be uppermost in their decision making. One possible explanation for this is that these pharmacists may consider that they can abrogate their professional responsibility to others, for example the pharmacy superintendent of the employing company.

7.2 Scenario B: Staffing

As detailed in Chapter Four this scenario contains elements from each of the agendas. Once again the commercial and professional agendas are essentially in opposition, however the public agenda, as with Scenario B, contributes by imposing funding constraints.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate considerable variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated high autonomy, employees and locums indicated considerably less.
- Male pharmacists appear to have indicated higher levels of autonomy than female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Experience did not significantly affect the level of autonomy indicated.
- Using the classification of scenarios developed using factor analysis this is a type 1 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario B appears to be associated with the first rotated principal component VPC1 in a very similar manner to scenario A. This links with high authority decision making at the level of the organisation, which impacts upon commercial policy. In the context of the revised model of autonomy developed in Chapter 4 this corresponds to the pharmacist being able to act primarily “in authority”. This appears to link with the summary of results above, which indicate:

- That pharmacists working in all sizes of organisations were not able to exercise high levels of professional autonomy in this situation – this indicates that to act in authority with regard to this type of decision requires an extremely high level of organisational control, which is not concomitant with employee status in most cases.
- That pharmacists in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions – higher levels of authority, whether formalised or not, may be associated with full-time positions.
- That female pharmacists may be less able to exercise professional autonomy in this situation than male pharmacists: The bi-variate analysis indicated this clearly, however when subjected to multivariate analysis, the effect, though still present was not significant at the 5% confidence level. It was however significant at the 10% confidence level. Male pharmacists appear to demonstrate higher VPC1 component scores across a range of scenarios which suggests that their perception of this attribute of professional autonomy differs from that of female colleagues.
- That employees and locums were less able to exercise professional autonomy in this situation than contractors: Contractors would be expected to be able to act in authority with regard to their own practices as they satisfy the condition of a high degree of organisational control. Employees and locums appear not to share this to the same extent. The odds ratio value obtained from the binary logistic main effects model indicates that contractors are over 94 times more likely to choose the high autonomy response than are locums This considerably inhibits their ability to exercise professional autonomy in this scenario.

This scenario presents pharmacists with a situation in which they acknowledge that they do not have sufficient staff to manage the pharmaceutical workload. The issues from the professional agenda are concerned with ensuring that patients' safety is not compromised and that good clinical governance procedure

is maintained. From the commercial agenda, staffing is major cost and undertaking dispensing tasks at a loss is not an attractive option. This scenario presents pharmacists with a major dilemma as they are certain that additional staffing is required, which would involve the high autonomy response, however their practice situation may not enable them to express this.

Contractors once again seem able to resist the commercial agenda in this scenario as 91% of them opted for the high autonomy response. This is in spite of the fact that they would have to fund the costs of any additional staff taken on. As with scenario A it may be that as independent practitioners, responsible for professional standards, they may consider the risks involved in under-staffing too high to run.

Employees were largely unable to exhibit the high autonomy response to this scenario, with only 7% opting for this. This may be due to the fact that they do not feel able to change the staffing levels, even when they are unacceptable. This indicates that the commercial agenda, as evidenced by staffing levels, perhaps set by more senior figures in their organisation, is too powerful for them to oppose. The result of this behaviour is that potentially unsafe working practices are endured.

Locums were also largely unable to exhibit the high autonomy response. It is likely that they operate under similar constraints with respect to this scenario to employees and in addition may not legitimately control the resources of their temporary employer in order to engage staff.

7.3 Scenario C: MDS Patient

As detailed in Chapter 4 this scenario pits the professional agenda, powerfully expressed and focussed upon the care of a known patient against the commercial agenda which is more limited. The public agenda is largely passive in this instance.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate variation among respondents in terms of autonomy exhibited. These, can be summarised as:

- Contractors indicated high autonomy, employees' fairly high autonomy and locums somewhat less than employees.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 2 scenario.

With respect to the varimax principal component (VPC) analysis undertaken, scenario C appears to be associated with the second rotated principal component VPC2. From an analysis of the processes and outputs within the scenarios, this aspect of autonomy links with decision making in a mainly professional context, which impacts upon the individual patient. In the context of the revised model of autonomy developed in Chapter Four, this corresponds to the pharmacist being able to act primarily as "an authority" as these patient based scenarios require the pharmacist to use their professional training and expertise to resolve the situation appropriately. This appears to link with the summary of results above which indicate:

- That experience as evidenced by period of registration was not significant in being able to express high levels of professional autonomy: This

suggests that unlike acting primarily “in authority” which has some linkage with experience, acting as an authority does not. It may therefore be assumed that the professional training of pharmacists provides a sufficient basis to act as an authority in this patient related matter. With regard to the need to act in authority in this scenario it is likely that this is not excessive, as the consequences are limited to the impact upon the particular patient. Therefore this is little impediment to pharmacists of limited experience taking action.

- That organisational size was not a significant determinant of whether or not a pharmacist could express high professional autonomy: This suggests that pharmacists employed within organisations of varying sizes could act as an authority with respect to this scenario. The need to be able to act in authority being low assists all employees to express professional autonomy in this case.
- That pharmacists in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions, but this must be looked at in the context of the levels exhibited for the first two scenarios, where part-time workers registered very low levels of professional autonomy. In this case 48% of part-time workers recorded the high autonomy response, compared with 8% in scenario B, and although this was lower than full-time workers recorded it does demonstrate that within this scenario opting for the high autonomy response is not quite so difficult for part-time pharmacists. The explanation is likely to be, as before, with the low “in authority” requirement associated with this scenario.
- That male and female pharmacists exhibited similar levels of the high autonomy response – This suggests that being able to act as an authority is not as affected by gender as being able to act in authority. In addition the low degree of requirement to act in authority associated with this scenario means that female pharmacists are able to exercise professional autonomy to a similar extent to their male colleagues.

- That employees and locums were somewhat less able to exercise professional autonomy in this situation than contractors – The variances found with regard to this scenario were however less than those found for scenarios A and B where there is a much stronger association with acting in authority. The lower requirement in this scenario to act in authority together with the need to act as an authority enables employees (particularly) and locums to exercise fairly high levels of autonomy.

This scenario differs from the previous two discussed in that the professional agenda is powerfully present but, is not strongly opposed, by the commercial agenda. This enables the respondents, who acknowledge the necessity of supplying the MDS, to satisfy the requirements of the professional agenda by opting for the high autonomy response.

Contractors exhibited the high autonomy response in spite of the funding implications of supplying the patient. They may have decided that for a single known patient the financial consequences were not too severe and did not preclude acting in the patient's best interest.

Employees greater levels of the high autonomy response with this scenario than with the previous two discussed. Again the commercial downside was not severe and they may have considered that they had the freedom to help the patient.

Locums exhibited greater levels of the high autonomy response with this scenario than with the previous two discussed. As with the other groups they may have been influenced by the weak expression of the commercial agenda.

This scenario, taken together with the previous two suggests that the strength with which an individual agenda is expressed must be considered together with the strength of any opposing agendas in determining outcomes.

7.4 Scenario D: Calendar Packs

As detailed in Chapter 4 this scenario sets the professional agenda and to some extent the public agenda against the commercial agenda.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated high autonomy, employees also indicated high autonomy and locums somewhat less than employees.
- Female pharmacists appear to have indicated higher levels of autonomy than male pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 3 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario D appears to be associated with the third rotated principal component VPC3. From an analysis of the processes and outputs within the scenarios this aspect of autonomy links with decision making in a professional context concerned with the dispensing of prescriptions. The outputs impact upon the service provision to a number, potentially all, patients who use the particular service. In the context of the revised model of autonomy developed in Chapter Four this corresponds to the pharmacist being able to act as “an authority” in determining the appropriate professional action and being able to act in authority to some degree in order to set

professional policy. This appears to link with the summary of results above, which indicate:

- That experience as evidenced by period of registration was not significant in being able to express high levels of professional autonomy: This suggests that, as before, acting as an authority does not link with experience as the professional training of pharmacists provides a sufficient basis. With regard to the need to act in authority in this scenario it is likely that this is not excessive. This is because in this case the pharmacist choosing to exercise the high autonomy response and issue calendar packs would do so with the full support of the regulations contained within the Drug Tariff. The pharmacist would therefore be totally within their rights under the regulations which govern the dispensing of NHS prescriptions to opt for this course of action. Therefore although the consequences of this decision will affect a number of patients and making it will require some degree of being able to act in authority, there is considerable support for pharmacists in this situation.
- That organisational size was not a significant determinant of whether or not a pharmacist could express high professional autonomy: This suggests that pharmacists employed within organisations of varying sizes could act as an authority with respect to this scenario. The need to be able to act in authority being supported assists all employees to express professional autonomy in this case.
- That pharmacists in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions: As with scenario C this must be looked at in the context of the levels exhibited by both groups, which were similar in level to those for scenario C. This does demonstrate that within this scenario opting for the high autonomy response is not quite so difficult for part-time pharmacists. The explanation is likely to be as before with the support for the “in authority” requirement associated with this scenario.
- That female pharmacists appear to demonstrate higher levels of autonomy: The effect, though not significant at the 5% confidence level in

the bi-variate analysis, was significant at the 10% confidence level. This may be taken as a weak indication that female pharmacists may exhibit higher levels of autonomy with respect to this scenario, or that there is no difference between the genders. Again this suggests that being able to act as an authority is not as affected by gender to the same degree as being able to act in authority. In addition the degree of support for the in authority requirement associated with this scenario means that female pharmacists are not unduly constrained from exercising the high autonomy response.

- That employees and locums were somewhat less able to exercise professional autonomy in this situation than contractors: The variances found with regard to this scenario were again less than those found for scenarios A and B, where there is a much stronger association with acting in authority. The requirement in this scenario to act as an authority enables employees (particularly) and locums to exercise fairly high levels of autonomy, and the support for the requirement to act in authority means that they are able to take on this role to a considerable extent.

In its original form this scenario contained an explicit conflict with the medical profession which would have made the commercial agenda overwhelmingly powerful, however the focus group refined the scenario as detailed in Chapter Four in order to ensure that it met the requirements of the project. As originally drafted the scenario may have served to explore the degree of autonomy of the pharmacy profession when in conflict with the medical profession. This area of research which has been relatively well explored by a number of workers¹³⁴,¹³⁵,¹³⁶ was not the remit of this research which was to focus on the degree of autonomy available to a practitioner in a number of practice settings. As originally drafted the scenario was to some degree contaminated by these other considerations and so was refined in accordance with the objects of this research.

Thus this scenario in its final form contained a strong expression of the professional agenda together with some support from the public agenda, mitigated by some residual expression of the commercial agenda. The commercial risk of supplying a calendar pack of 28 tablets to a patient whose prescription calls for 30 tablets is that the patient may choose to frequent another pharmacy where the policy may be different, however this is to some degree offset due to reductions in stock holding and waste that may accrue from issuing packs.

Contractors exhibited high autonomy with respect to this scenario, the commercial risks, although present did not constrain them from aligning with the professional and public agendas.

Employees too opted for the high autonomy response at levels only slightly less than contractors. Within this scenario the balance of agenda forces was such that they were also able to align with the professional and public agendas.

For locums the high autonomy response was also fairly high, but somewhat less than for employees. There may be a number of factors which explain this difference and these are most likely to pertain to the temporary nature of employment that locums enjoy. Whilst it is the case that self employed locums are responsible for setting and maintaining their own professional standards they also require continuation of bookings in order to continue to earn. Where a locum's actions eg, changing the policy in a pharmacy on the issue of calendar packs, would cause confusion with staff and patients, the locum would need to consider the commercial consequences in terms of repeat bookings. Thus for locums the commercial agenda looms larger in this scenario than it may do for other occupational groups.

7.5 Scenario E: Dispensing Protocol

As detailed in Chapter 4 the professional agenda is dominant in this scenario, the commercial agenda is muted and the public agenda is largely passive.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated very high autonomy, employees fairly high autonomy and locums somewhat less than employees.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists' period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 3 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario E appears to be associated with the third rotated principal component VPC3. As was described with respect to scenario D this aspect of autonomy links with decision making in a professional context concerned with the dispensing of prescriptions. The outputs impact upon the service provision to a number of patients who use the particular service. In the context of the revised model of autonomy developed in Chapter Four this corresponds to the pharmacist being able to act as "an authority" in determining the appropriate professional action and being able to act in authority to some degree in order to set professional policy. This appears to link with the summary of results above, which indicate:

- That experience as evidenced by period of registration was not significant in being able to express high levels of professional autonomy: This suggests that as in the preceding scenario, acting as an authority does not link with experience as the professional training of pharmacists provides a sufficient basis. With regard to the need to act in authority in this scenario, it is likely that this is not excessive. This is because in this case the pharmacist choosing to exercise the high autonomy response and institute the dispensing protocol would be considerably supported by the professional agenda.
- That organisational size was not a significant determinant of whether or not a pharmacist could express high professional autonomy: This suggests that pharmacists employed within organisations of varying sizes could act as an authority with respect to this scenario. The need to be able to act in authority being supported assists all employees to express professional autonomy in this case.
- That pharmacists' in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions: As with scenario D this must be looked at in the context of the levels exhibited by both groups, which were similar in level to those for scenario D. This does demonstrate that within this scenario opting for the high autonomy response is not quite so difficult for part-time pharmacists. The explanation is likely to be as before, with the support for the "in authority" requirement associated with this scenario.
- That male and female pharmacists exhibited similar levels of the high autonomy response: This suggests that being able to act as an authority is not as affected by gender as being able to act in authority. In addition the degree of support for the in authority requirement associated with this scenario means that female pharmacists are able to exercise professional autonomy to a similar extent to their male colleagues.
- That employees and locums were somewhat less able to exercise professional autonomy in this situation than contractors: The variances found with regard to this scenario were again less than those found for

scenarios A and B, where there is a much stronger association with acting in authority. The requirement in this scenario to act as an authority enables employees (particularly) and locums to exercise fairly high levels of autonomy and the support for the requirement to act in authority means that they are able to take on this role to a considerable extent.

This scenario has at its heart the utilisation of professional autonomy in order to organise the professional functions of the pharmacy to ensure optimal patient care. It is very closely aligned to the professional agenda and links strongly with concepts of clinical governance.

Contractors exhibited very high autonomy with respect to this scenario (joint highest) and were not constrained from alignment with the professional agenda.

Employees exhibited fairly high autonomy, although not as high as contractors. It may have been that some employees did not consider they had the autonomy within their organisational structure to reconfigure the professional work. In some organisations the configuration of the professional work may have been decided at a higher level in the organisation and change may be difficult to affect by an individual professional employee.

Locums were unable to exhibit high autonomy at the same level as employees. This may be due to organisational reasons as with employees, but which in the case of locums may be more constraining for two reasons. Firstly there is the issue of locums changing established practices, which may be seen as disruptive, and lead to conflict between the locum and their temporary employer, the consequence of which may be loss of repeat bookings. The second point is a more general one and was made by a locum member of the focus group, this may be summarised as "fitting in" As a coping strategy locums may simply find it easiest to fit in to whatever usual situation pertains in the pharmacy where they have bookings. Thus their alignment with the professional agenda in this scenario would be constrained

by the agendas operating in the background of the pharmacy in which they were working.

7.6 Scenario F: MDS Residential Home

As detailed in Chapter 4 the professional agenda is important in this scenario as the group of patients would definitely benefit from the provision of the MDS system, however the commercial agenda is not insignificant as the cost of provision and maintenance would be borne by the pharmacy. The public agenda seeks the benefit to patients which would accrue but is not prepared to commit the necessary funding.

The results obtained for this scenario using the various quantitative techniques detailed in Chapter 8 indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated high autonomy, employees lower autonomy and locums somewhat less than employees.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 1 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario A appears to be associated with the first rotated principal component VPC1. From an analysis of the processes and outputs within the

scenarios this aspect of autonomy links with high authority decision making at the level of the organisation, which impacts upon commercial policy. In the context of the revised model of autonomy developed in Chapter Four this corresponds to the pharmacist being able to act primarily “in authority”. This appears to link with the summary of results above, which indicate:

- That pharmacists in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions: Higher levels of authority, whether formalised or not, may be associated with full-time positions.
- That employees and locums were less able to exercise professional autonomy in this situation than contractors: Contractors would be expected to be able to act in authority with regard to their own practices. Employees and locums appear not to be able to do so to the same extent. This considerably inhibits their ability to exercise professional autonomy in this scenario.

This scenario may be viewed as a development of Scenario C: MDS Patient, however in this case the scenario deals with provision to a home, containing an unspecified number of patients. This means that the commercial agenda is noticeably more prominent, however the professional and public agendas are represented as in the previous scenario. It may therefore be appropriate to interpret the differences in response to the more powerful expression of the commercial agenda.

Contractors exhibited high autonomy in this instance registering 78% in the bi-variate analysis. This was slightly down from 89% registered in terms of Scenario C but still indicates that contractors were able to exercise autonomy aligned with the professional agenda. The diminution of autonomy compared with Scenario C may indicate the effect of a more powerful commercial agenda upon contractors.

With employees the effect of the commercial agenda is more profound with the high autonomy response reducing from 73% to 38%. This indicates that employees are considerably more constrained by the commercial agenda present in this scenario than they were when only a single patient was being considered.

With locums the reduction in the high autonomy response is still more striking, reducing from 54% in Scenario C to 18% here. Locums are undoubtedly in a difficult position when it comes to committing the resources of an organisation they work for on a temporary basis. As with previous examples, they need to consider both the commercial agenda pertaining to the pharmacy and that of their own situation before expressing professional autonomy.

7.7 Scenario G: Asthma Patient

As detailed in Chapter 4 all of the agendas are represented in this scenario, however it is primarily the commercial agenda in opposition to the professional agenda that is at the core of the scenario. At first sight the commercial agenda does not seem to be overwhelming, as this supply is only for a single patient, however the issue of generic prescribing and dispensing is very significant and complex.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors, employees and locums indicated similar levels of autonomy.
- Male pharmacists indicated lower levels of autonomy than female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.

- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 2 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario G appears to be associated with the second rotated principal component VPC2. in a similar manner to scenario C.

The results highlight:

- That experience as evidenced by period of registration was not significant in being able to express high levels of professional autonomy: The need to act in authority in this scenario is not likely to be excessive, as the consequences are limited to the impact upon the particular patient. Therefore this is not a substantial impediment to pharmacists of limited experience taking action.
- That organisational size was not a significant determinant of whether or not a pharmacist could express high professional autonomy: This suggests that pharmacists employed within organisations of varying sizes could act as an authority with respect to this scenario. The need to be able to act in authority being low assists all employees to express professional autonomy in this case.
- That pharmacists' in part-time employment were less able to exercise professional autonomy in this situation than those in full-time positions: This has been commented upon with regard to previous scenarios.
- That female pharmacists exhibited higher levels of autonomy: This is the only scenario in which significance at the 5% confidence level can be demonstrated for a gender difference. The odds ratio of female pharmacists opting for the high autonomy response is 1.45 compared to males for this scenario. This suggests that there is some aspect of this

scenario which links to the exercise of professional autonomy by female pharmacists. The scenario is characterised as linking to the second rotated principal component VPC2 which appears to be associated with decision making in a mainly professional context, on behalf of a patient. Female pharmacists are characterised by VPC2 scores which are higher than their VPC1 scores (male pharmacists are the exact opposite) therefore it is possible that this scenario, containing the clear need to act in the patient's interest may elicit female pharmacists to exercise their professional autonomy.

- That contractors, employees and locums exhibited similar levels of autonomy: The bi-variate analysis suggested that employees exhibited higher levels of autonomy than contractors with regard to this scenario. This effect was not demonstrated within the multivariate analysis which suggests that another factor was involved. This might be gender, as over 60% of employee respondents were female, and female pharmacists exhibited higher autonomy with respect to this scenario.

It is noteworthy that the results obtained for this scenario are quite different from the proceeding ones, both in terms of the occupational groups and in terms of gender.

Contractors did not exhibit high autonomy with respect to this scenario, the only instance in which this was the case. A number of factors may have contributed to this result but paramount is likely to be the influence of the commercial agenda and the point at which it impacts. With this scenario the pharmacist is presented with a number of irreconcilable dimensions:

The patient believes the generic medication is not working and the pharmacist acknowledges this to be genuine.

The prescriber is committed to generic prescribing and will not change the prescription to the more expensive branded form.

If the pharmacist accedes to the patient's request (as they can do legally) the payment will be based upon what was prescribed, ie, the generic form, and the provider will suffer a loss.

This is a considerable dilemma for contractors, in which there is no perfect outcome. If the patient is provided with the branded medication they will be satisfied and their treatment is likely to be successful, the prescriber will also be satisfied because they have not had to meet the cost to their drug budget of prescribing branded medication, however the contractor providing the branded medication against a generically written prescription will suffer a loss. If on the other hand the contractor refuses to provide the branded medication the patient will not be satisfied and their treatment may not be successful. The situation is potentially especially difficult because it relates to a single individual patient who is known to the pharmacist.

In this scenario there is no escaping the fact that the contractor is in the middle, between the patient's needs and the doctor's prescribing policy, and the only way of satisfying the patient's needs is for the contractor to pay for the difference in price between the generic and branded medicine out of their own pocket. This is the commercial agenda uncloaked, and the results obtained indicate that when faced with the commercial agenda expressed in this manner contractors have to acknowledge it.

Employees exhibited similar levels of autonomy to contractors, the only instance of this arising. A possible explanation for this may be that they wished to align with the professional agenda and act in the patient's best interests and were less concerned about the financial consequences as these would be borne by their employing organisation. This shielding effect may explain why they were less influenced by the commercial agenda in this instance. In addition this scenario seems to have elicited a greater manifestation of the high autonomy response from younger pharmacists and from female pharmacists which may indicate that these groupings identified very strongly with the professional agenda.

Locum pharmacists exhibited a level of the high autonomy response similar to that for contractors and employees. For locums a major difficulty in opting for high autonomy is the need to consider the existing policies in the pharmacy in which they are working. If the normal policy is no deviation from supply of generics when prescriptions are written in that form, the locum may opt to fit in rather than exercise their professional autonomy. If they do provide the branded medication they may incur the displeasure of the owner of the business and lose repeat bookings. Thus in this scenario the commercial agenda acts to constrain the actions of locum pharmacists.

7.8 Scenario H: Practice Research

As detailed in Chapter 4 the professional agenda is present in this scenario as the practice research project may be seen to be aligned with developing a better understanding of the practice situation and arguably benefits to patients may flow from this. The public agenda too would have a legitimate interest in increasing the pool of knowledge of the practice situation of pharmacists as they carry out the public service of NHS dispensing. The commercial agenda is not overtly powerful as the researcher is unlikely to affect the business by their presence in the dispensary, however commercially sensitive information could be obtained and so this agenda must be considered as well.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated higher autonomy than employees and locums.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.

- Size of organisation was significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 1 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario H appears to be associated with the first rotated principal component VPC1.

The results highlight:

- That organisational size was significant in terms of employees who exhibited high autonomy: The finding was that employees of the large multiples exhibited the lowest autonomy in this case. This scenario is associated with the first rotated principal component VPC1 which links to high level decision making, which may not be in the general remit of pharmacists working within the largest organisations. This is borne out to some extent by the evidence that as the organisational size decreases the degree of autonomy exhibited increases.

Contractors were able to exhibit high autonomy and largely align with the professional agenda. The commercial risks to the business would be something that contractors would be aware of and in a position to assess.

Employees were largely unable to exhibit high autonomy, they may have considered that granting access to a researcher could bring them into conflict with their employer. The research, although worthy was not certain to be of benefit and hence employees may have chosen not to facilitate it.

For locums the issues are likely to be very similar to those of employees, with the additional factor of the temporary nature of their employment. On some occasions locums may only work in a particular pharmacy for a day, or even less. In these cases they may consider they could not give an undertaking which extended beyond their period of employment.

The commercial agenda is present in this scenario as the risk of allowing an “outsider” access to the heart of the dispensing operation.

7.9 Scenario I: Domiciliary Visiting

As detailed in Chapter 4 all three agendas are present in this scenario. The main driver may be seen as the public agenda and this is aligned with the professional agenda to some extent.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated higher autonomy than employees and locums.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 1 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario I appears to be associated with the first rotated principal component VPC1.

The results highlight:

- That organisational size was significant in terms of employees who exhibited high autonomy: As with the previous scenario the finding was that employees of the large multiples exhibited the lowest autonomy. This scenario, like the previous one is associated with the first rotated principal component VPC1 which links to high level decision making.
- That experience was significant in terms of exhibiting high autonomy: This is discussed below.

Contractors are in a good position to consider the commercial risks and benefits of taking this type of work on, as they should have a clear understanding of the business dynamics. The high autonomy responses indicate that contractors were relaxed about the commercial risks and were keen to align with the public and professional agendas represented in this scenario.

Employees exhibited fairly low autonomy with respect to this scenario, this may have been due in part to a reluctance to take on new role and it is noticeable that those with the least experience indicated the lowest autonomy in this instance. For employees who do take on this type of work there is a need to co-ordinate it with their responsibilities as an employee in the pharmacy setting. In practical terms this means ensuring that the normal activities of the pharmacy are not adversely affected as if this were to be the case they could encounter problems with their employing organisation. In most cases the employee pharmacist is employed to manage a branch pharmacy and their earning power is related to the success of the branch, therefore they may regard the commercial risk involved in diversifying in this way to be considerable.

Locums exhibited higher autonomy than employees with respect to the bi-variate analysis, but the effect was not significant when subjected to multi-variate analysis. There may however be a suggestion that locums enjoy relative freedom to arrange their own working practice and choose the type of work they wish to undertake. Locums may consider that developing expertise in this type of pharmaceutical work may enable them to specialise and possibly command higher rates of pay.

7.10 Scenario J: Prescribing Support

As detailed in Chapter 4 all three agendas are present in this scenario. The professional agenda is aligned with the public agenda and opposed to some extent by the commercial agenda.

The results obtained for this scenario using the various quantitative techniques detailed in Chapter 8 indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated higher autonomy than employees or locums, locums indicated higher autonomy than employees.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 1 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario I appears to be associated with the first rotated principal component VPC1.

The results highlight:

- That locums exhibited higher levels of autonomy than employees: This finding was significant in the initial bi-variate analysis and was found to be still significant when subjected to multi-variate analysis. This is discussed below.

The results for this scenario are very similar to those obtained for the domiciliary visiting case. They are linked in that they are both examples of an extended role for community pharmacists and very much in line with public and professional policy agendas for the development of the pharmacy workforce.

Contractors exhibited high autonomy clearly aligning with the agendas detailed above. They will have been aware of the presence of the commercial agenda in that prescription volumes might be affected by their intervention however they may prefer that it is they who advise local prescribers, rather than other pharmacists who may not be affected by the prescribing changes initiated. This point was made at the focus group by a pharmacist with experience of the situation. The commercial agenda for contractors in this situation is complex and for many the best option seems to be to undertake the work and try to minimise any adverse consequences for their pharmacy businesses.

Employees responded to this scenario in a very similar manner to the previous one, and their rationale is likely to be largely the same. The less experienced pharmacists exhibited lowest autonomy, as did those working for the biggest organisations. For less experienced employees there may have been lack of confidence in undertaking this extended role and combining it with their normal work for an employer. For this group their commercial agenda at the outset of their careers is likely to be concerned with

consolidation of their core professional role. With greater experience higher autonomy was demonstrated which indicates an increasing capacity to embrace this role. With regard to organisational size the low autonomy seen in the largest organisations may reflect the experience profile of their employees and organisational rigidity which may preclude the flexible working arrangements necessary to support this type of work.

Locums exhibited higher autonomy than employees. The explanation may be that locums have the freedom to choose the type of work they do from the range that is on offer. This means that providing the work is remunerated at the same rates as their other activities they will not be deterred by the commercial agenda. If the work is, or becomes, more specialised the possibility of it attracting higher remuneration may make it increasingly attractive to locums. In addition the commercial agenda does not impact directly on the locum as a consequence of prescribing changes. Locum rates are set largely in terms of supply and demand and are unlikely to be significantly affected by localised initiatives.

7.11 Scenario K: Methadone

As detailed in Chapter 4 the professional and public agendas are strongly represented in this scenario. The professional agenda is aligned with the public agenda and the commercial agenda is broadly neutral.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated higher autonomy than employees or locums, employees indicated higher autonomy than locums.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.

- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 2 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario G appears to be associated with the second rotated principal component VPC2. in a similar manner to scenarios C and G.

This scenario elicited the high autonomy response from the great majority of respondents with employees and locums indicating higher autonomy with respect to this scenario than with any other.

For contractors and employees the professional and public agendas are so powerfully represented within this scenario that they must be dominant for all groups unless constrained by a powerful expression of the commercial agenda. However this is not the case, as the commercial agenda is broadly neutral. On the one hand servicing this type of patient may lead to other patients not wishing to frequent the pharmacy with a consequent loss of business. On the other hand methadone as a controlled drug attracts enhanced payments to the pharmacy leading to increases in profit margins. The overall balance will vary from pharmacy to pharmacy but in most cases is not likely to be highly significant from the business perspective.

Locums too exhibited high levels of autonomy with respect to this scenario, thus indicating that for them alignment with the professional and public agendas is not greatly constrained by the commercial agenda. Locums do however need to consider the temporary nature of their employment and some may consider they could not give an undertaking that extended beyond

that. This would be a significant factor if they had reason to believe that the owner of the business would not be in favour of providing the service.

7.12 Scenario L: Repeat Prescriptions

As detailed in Chapter 4 all three agendas are present in this scenario. The professional agenda is aligned with the public agenda and opposed to some extent by the commercial agenda.

The results obtained for this scenario using the various quantitative techniques detailed in the results chapters, indicate variation among respondents in terms of autonomy exhibited. These can be summarised as:

- Contractors indicated higher autonomy than employees or locums, employees indicated higher autonomy than locums.
- Male pharmacists indicated similar levels of autonomy to female pharmacists.
- Pharmacists in full-time employment indicated higher levels of autonomy than those in part-time employment.
- Size of organisation was not significant in terms of those who exhibited the high autonomy response.
- Pharmacists period of registration was not significant in terms of those who exhibited the high autonomy response.
- Using the classification of scenarios developed using factor analysis this is a type 3 scenario.

With respect to the varimax principal component (VPC) analysis undertaken scenario L appears to be associated with the third rotated principal component VPC3 as was the case with scenarios D and E.

Contractors exhibited high autonomy indicating that would align with the professional and public agendas and not be excessively constrained by the

commercial agenda. The commercial agenda takes account of the potential loss of prescription volume and profitability that could result from undertaking the work, however there may be commercial benefits accruing from making this type of intervention with patients, although these are difficult to quantify. The relationship with the patient may be improved and greater confidence in the pharmacist may lead to business opportunities, in addition the prescribers may re-evaluate the contribution of the pharmacist and this could be valuable.

Employees exhibited fairly high autonomy indicating that they too aligned with the professional and public agendas, however they appear to have been constrained to a larger extent by the commercial agenda. This is likely to be because multiples of all sizes use prescription numbers as a key performance indicator of branch performance. Linked to this may be a number of aspects of remuneration for the employee pharmacist and other dispensary staff. Action which reduces the prescription numbers is therefore likely to carry a penalty for employee pharmacists and they have to be aware of this dimension when deciding their response to this scenario.

For locums the commercial agenda is also pertinent, they will be unlikely to generate repeat bookings at pharmacies where they have reduced prescription numbers.

7.13 Comments on Initial Analysis of Scenarios

The analysis of the scenarios using the conceptual model of the three agendas and analysis of the results obtained from the questionnaire has produced a number of important outcomes, which add considerably to our knowledge of the operation of professional autonomy in the community pharmacy workplace.

With regard to the analysis it was found by using rotated factor analysis methods it was possible to distinguish between the scenarios in terms of which rotated principal component factor they were associated with. This was

either the first as in the case of scenarios; A,B,F,H,I,J. (type 1).The second as in the case of scenarios; C,G,K. (type 2). And the third as in the case of scenarios D,E,L. (type 3). In addition, results from the bivariate analysis and the multivariate modelling support to some extent the classification of the scenarios into the three types. Results from the multivariate modelling indicate that it is only with respect to type 1 scenarios that the effect of experience is statistically significant at the 5% confidence level. And it is only with respect to type 1 scenarios that the effect of organisational size for employees is statistically significant at the 5% confidence level. These results are summarised below in Table 7.1 . Each variable is shown together with the scenarios in which significance was found at the 5% confidence level or above. Occupational status is with respect to significant differences between contractors and locums

Table 7.1 Statistically significant variables by scenario type

	Type 1	Type 2	Type 3
Occupational status	ABFHIJ	CK	DEL
Gender	-	G	-
Full / part-time	AFHJI	CGK	DEL
Organisational size	AHIJ	-	-
Experience	AIJ	-	-

Significant at 5% confidence level or above

Considering these findings from a theoretical perspective with regard to type 1 scenarios, the dominant agenda may be considered to be the commercial agenda. The other agendas are less forcefully expressed and the exercise of professional autonomy is controlled by the pharmacist's capacity to act "in authority". The ability of the pharmacist to act in this manner is affected by the variables detailed above in Table 7.1 under type 1 scenarios.

With regard to type 2 scenarios the professional agenda may be considered to be dominant, with the others less forcefully expressed. As before the

exercise of professional autonomy is controlled by the pharmacist's capacity to act "in authority", and in this case that ability is affected by the variables detailed above in Table 7.1 under type 2 scenarios.

With regard to type 3 scenarios the professional and public agendas may be considered to be dominant, with the commercial agenda less forcefully expressed. As before the exercise of professional autonomy is controlled by the pharmacist's capacity to act "in authority", and in this case that ability is affected by the variables detailed above in Table 7.1 under type 3 scenarios.

It is clear that the professional and public policy agendas are often very closely aligned and when this is the case, the typical type 3 scenario results. Individually each is not as strong as the commercial agenda but when they are both forcefully present they can exert considerable effects.

The commercial agenda acts to some degree as the determinant of the degree of professional autonomy a pharmacist can exhibit. If the commercial agenda is passive pharmacists seem to be relatively unrestricted in their scope of professional autonomy. Thus, in type 2 scenarios the professional agenda can be dominant. Where, however, the commercial agenda is strongly expressed, as in type 1 scenarios, it controls the exercise of professional autonomy and leads to the pattern of findings depicted in Table 7.1. It is worthy of note that these findings appear to justify using twelve scenarios in the research instrument, as it is arguably the case that a lesser number of scenarios would not have enabled the three distinct types to be elucidated. If this had been the case, the degree of understanding of the operation of professional autonomy in the community pharmacy workplace and the contribution to knowledge would not have been so significant.

7.14 Final Model of Professional Autonomy

The analyses of the results obtained from the questionnaire have demonstrated a high degree of consistency within each type of scenario. This

provides further support for considering that each type of scenario necessitates the exercise of particular aspects of professional autonomy. In addition, it indicates that the scenario methodology has been of considerable use in eliciting detailed information about the operation of professional autonomy within the community pharmacy workplace. In particular the scenarios have enabled the interplay of the agendas to be explored and the research instrument has demonstrated considerable sensitivity in teasing out the forces of alignment and opposition, and their effects on the various groups and sub-groups of pharmacists.

Making use of this information it is possible to conceptualise a more complete model of professional autonomy in the community pharmacy workplace, which takes into account the strength of the various agendas and their influence on outcomes.

Each type of scenario is illustrated below in Figures 7.1 to 7.3

Figure. 7.1 Type 1 scenario

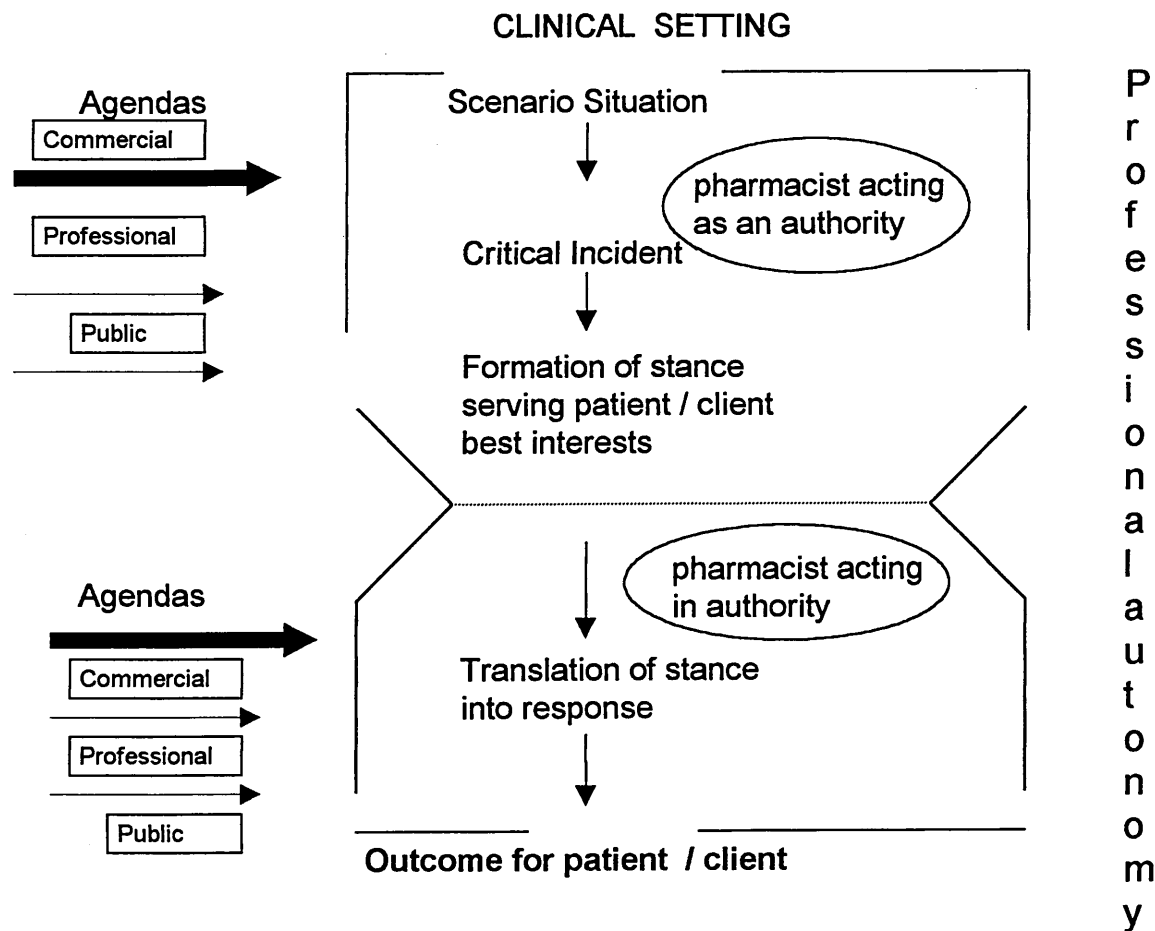


Figure 7.2 Type 2 scenario

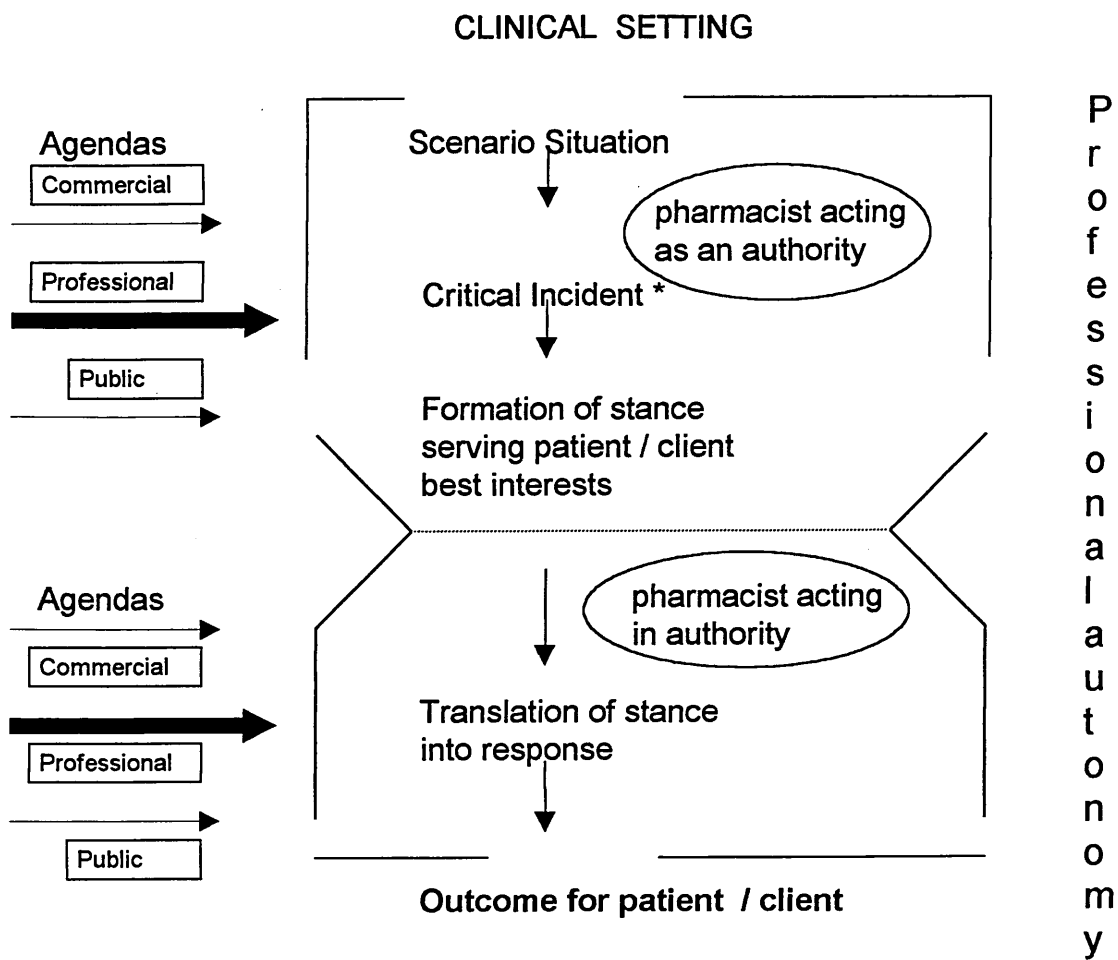
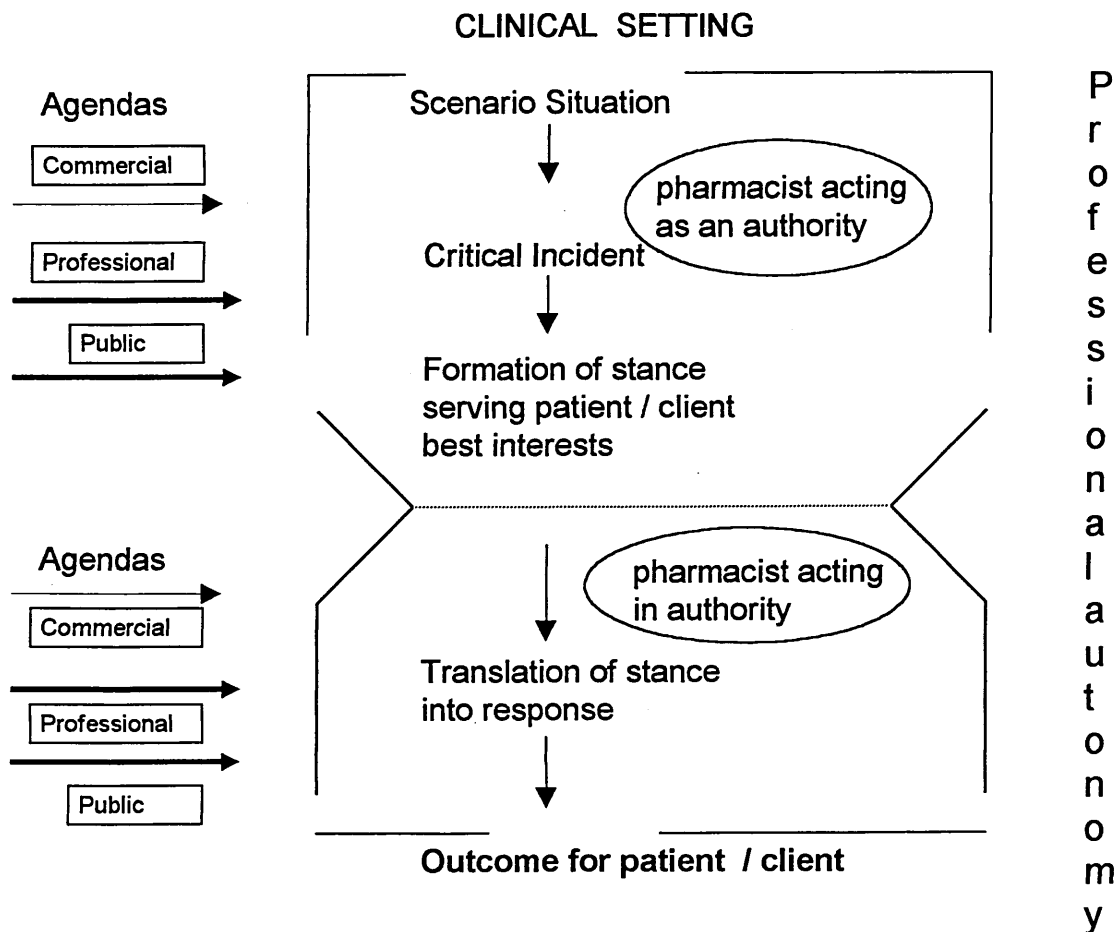


Figure 7.3 Type 3 scenario



7.15 The independent Variables

The first consideration of the results has been from the frame of reference of the scenarios and in the process made a number of observations concerning the independent variables have been made. The next section will however consider each of the independent variables in detail and comment on their effects upon the operation of professional autonomy

7.15.1 Occupational Status – Contractors

The results with respect to occupational status and professional autonomy for contractors seem unambiguous. Within the current contractor model it is clear

that, as anticipated, contractor status is associated with the expression of high levels of professional autonomy. The basis for saying this as follows:

- Initial bivariate analysis of high autonomy responses to the scenarios indicated that contractors exhibited high autonomy with respect to every scenario except scenario G.
- Binary logistic main effects modelling indicated that contractors exhibited high autonomy with respect to every scenario except scenario G.
- Varimax principal component modelling indicated that contractors exhibited VPC1 scores which were significantly greater than their VPC2 score. This pattern was found to be typical of contractors and it is suggested that the VPC1 factor is associated with the concept of high authority decision making .

Other professional employment, either as an employee pharmacist or as a self employed locum pharmacist, is associated with much lower levels of professional autonomy as measured by these indicators. The results gathered within this research indicate that occupational status is an important variable affecting the exercise of professional autonomy and that contractors are the group which demonstrate this to the greatest extent.

As detailed in Chapter One the contractor model, initiated at the start of the NHS, is still in use for the provision of community pharmacy services. From a number of perspectives the model may seem inappropriate, having been seriously compromised by the rise of the multiples and the increasing provision of services by employees and locum pharmacists. These issues have been reviewed by Ottewill and Magirr¹³⁷ who suggest that the principal claimed advantages for the contractor model “are that they safeguard the professional autonomy of community pharmacists and the status of community pharmaceutical services *vis-a-vis* other family health services, such as general medical services, which are also based upon an independent contractor model, and they contribute to the efficiency and quality of service delivery by incorporating a contract *for* services.”

Within this research there is evidence that contractors have been able to exhibit high levels of professional autonomy, across a wide range of practice situations. When the degree of autonomy of contractors was compared with that of locum pharmacists, as was done in the binary logistic main effects model, the results indicated that contractors were on average over 18 times more likely to choose the high autonomy option. The analysis of the results of each scenario using the conceptual model of the agendas suggests that contractors do enjoy a measure of protection with respect to professional autonomy. This may be explained in terms of their ability to align (within the model) with the professional and public policy agendas and crucially, to resist to a considerable degree the impact of the commercial agenda

7.15.2 Occupational Status - Employees

Employees do not themselves hold the pharmacy contract and hence any protective effect upon professional autonomy that might accrue from this is absent.

Within this research employee pharmacists exhibited much lower levels of professional autonomy, across a range of practice situations than did contractors. The basis for saying this is as follows:

- Initial bivariate analysis of high autonomy responses to the scenarios indicated that employees exhibited lower autonomy than contractors with respect to 11 of the 12 scenarios.
- Binary logistic main effects modelling indicated that employees exhibited lower autonomy with respect to each scenario except scenario G.
- Varimax principal component modelling indicated that employees exhibited VPC2 scores which were significantly greater than their VPC1 score. This pattern was found to be typical of employees. It is suggested that the VPC2 factor is associated with the concept of professional decision making with regard to the treatment of individual patients, whereas VPC1 links primarily to acting in authority.

The degree to which employees can exercise professional autonomy seems to be considerably less than that demonstrated by contractors, however it is in some cases greater than that of locums. In addition employees exhibited equal, or greater autonomy with respect to scenario G (Asthma Patient) than did contractors and similar, but lower levels, for the two other single patient based scenarios (C and K). This suggests that there is a dimension of professional autonomy, associated with the VPC2 factor, which is exhibited by employee pharmacists.

Analysis of the results from the scenarios indicated that employees were far less able to resist the commercial agenda than were contractors.

7.15.3 Occupational Status - Locums

Locum pharmacists, like employees do not hold the pharmacy contract and may work for a number of different employers. Their employment prospects will depend upon a number of issues such as the demand for locums in the geographical area in which they practise, their availability over extended hours and weekends, their rates and their perceived competencies both professional and commercial. In addition locums do not have a single contract but rather a number of commercial relationships with a number of employers. All of these factors impact upon their professional autonomy and the results of the scenarios, across a range of practice situations, indicated that locums did not exhibit high levels of professional autonomy. When analysed using the conceptual model of the agendas the sensitivity of locums to the commercial agenda was considerable.

Within this research locum pharmacists exhibited much lower levels of professional autonomy, across a range of practice situations than did contractors. The basis for saying this is as follows:

- Initial bivariate analysis of high autonomy responses to the scenarios indicated that locums exhibited lower autonomy than contractors with respect to all of the 12 scenarios.
- Binary logistic main effects modelling indicated that locums exhibited lower autonomy with respect to each scenario than contractors, except for scenario G.
- Varimax principal component modelling indicated that locums exhibited low scores for each factor, ranked as VPC1 slightly but not significantly greater than VPC2, which was slightly but not significantly greater than VPC3. This pattern was found to be typical of locums.

This is strong evidence to support the contention that locum pharmacists significantly lack the ability to exercise professional autonomy in the workplace.

7.15.4 Gender

As the majority of graduates in pharmacy have been female for more than 10 years it is important to try to understand how gender is associated with professional autonomy. From the bi-variate analysis of the scenarios the indication was that gender was a factor in some instances, but not in others. In the majority of scenarios male pharmacists indicated higher autonomy than female, however in some cases this was not statistically significant and other factors may have contributed . When examined using the binary logistic main effect model, which removes the effects of other factors, the scenarios were evenly split with respect to whether male or female pharmacists exhibited higher autonomy, however the majority of instances were not significant statistically.

The results indicate that although gender does have an impact upon professional autonomy it is not a strong relationship. In addition it varies with the individual scenario being considered. This may be because within the

individual scenarios there are factors that affect the balance of forces within the agenda model for male and female pharmacists, or because gender is associated with another variable that is mainly responsible for the effect on professional autonomy. Thus the low correlation of female pharmacists with contractor status and the high correlation with employee status and part-time working are likely to be more substantive elements in explaining variations in professional autonomy. This analysis is in good agreement with that advanced by Bottero ¹³⁸ who, writing about the increasing number of women entering pharmacy, comments that “the concentration on gender divisions has generated too narrow a theoretical focus and emphasised particular divisions at the expense of others”.

7.15.5 Full and Part-time Working

When considering full and part-time working due attention must be paid to the complexity of working practices of the pharmacy workforce. As was discussed in Chapter Three p -, pharmacists may well combine working part-time with working as a locum and it is important to know which variable is responsible for the effects observed. For this reason most weighting is given to results obtained using multivariate analysis, in this case binary logistic main effect methods. Using either bi-variate analysis or binary logistic main effect methods of analysis it is clear that full or part-time working is a significant factor affecting professional autonomy. In the case of each scenario full-time pharmacists exhibited significantly higher autonomy than part-timers. Using the binary logistic model it is clear that the odds ratios are not as great as those found with occupational status, however the trend is consistent. The reasons for this low expression of professional autonomy may be associated with the way in which part-time pharmacists align with the three agendas. Within this research, part-time working has been found to be more prevalent among female pharmacists than with males and this is consistent with the published RPSGB survey data ¹³⁹. The finding that part-time working pharmacists, who are predominately female, exhibit lower autonomy than full-

time working pharmacists, who are predominately male has resonance with dual labour market theory, as discussed by Crompton and Sanderson¹⁴⁰. This is based on an assumption of two sectors of employment. The primary sector consisting mainly of workers with specific knowledge and skills, in whom employers have invested more in the way of training. They are higher paid, have better conditions of work, better job security and better promotion prospects. They are predominantly male, and full-time. In contrast, the secondary sector is predominantly an unskilled, flexible workforce, not interested in training or promotion - almost a negative mirror-image of the primary sector¹⁴¹. However pharmacists who work part-time are not unskilled, they have had to attain the same professional qualification as full-time pharmacists but they may conform to the secondary sector, particularly in terms of flexibility. This flexibility is not necessarily driven solely by employers seeking to control costs in the labour market, it is also a manifestation of the appeal of flexible working arrangements to (predominantly) female part-time pharmacists. Crompton and Sanderson¹⁴² examined the role of women in a number of occupations, one of which was pharmacy, and noted that the ready availability of flexible employment became more important after marriage and especially after the birth of children. They maintained (p 160) that:

“the majority of women pharmacists have followed conventional practices relating to sex roles and have assumed the primary responsibility for the care of their children.”

The sociological literature on part-time working, including specifically, pharmacy part-time working suggests that these workers have to balance a range of responsibilities and that part-time working confers the flexibility that is essential. In this context it is reasonable to ask to what extent such individuals identify with a professional agenda, or a public policy agenda when their key arrangements are fixed at a micro level. It is however highly likely that they will be sensitive to the commercial agenda, and may be reluctant to antagonise an employer with whom they have established the necessary flexibility arrangements.

7.15.6 Size of Employing Organisation

The results obtained in this research do not suggest a strong link between professional autonomy and the size of organisation that a pharmacist works for, except in the case of some type 1 scenarios. In the majority of cases the results were not statistically significant, however in each case where statistical significance was established the group of employees exhibiting the lowest autonomy were employed by the largest organisations. There is therefore a link in the case of some type 1 scenarios; A, H, I, and J, but not in the others.

Scenario (A) Parallel Imports, in this case where a purchasing decision has been taken by an organisation for commercial reasons it may be very difficult to challenge. It is likely that the bigger the organisation the more difficult it may be for an individual pharmacist to challenge this practice.

Scenario (H) Practice Research, in this case the commercial agenda is thought to operate via the commercial risk to an organisation of allowing access to its operations by an “outsider”. The largest organisations may be those most concerned by this possibility and hence the pharmacists employed by organisations of this size would be the most constrained. Evidence for this conjecture is available in the form of the letter received from the Boots The Chemists company, which indicated a high sensitivity to research interest.

Scenario (I) Domiciliary Visiting, in this case the pharmacist needs to leave the pharmacy in order to carry out the task. This means that another pharmacist would need to replace them in the pharmacy as dispensing and the sale of pharmacy medicines may only take place when supervised by a pharmacist. Large organisations may discourage this type of demand upon pharmaceutical manpower and organisational resource, either actively or passively in that their organisational rigidity does not facilitate it. For pharmacists working in the largest organisations the task may seem outside

the main mission of the company and they may align more strongly with what they perceive to be the company's agenda.

Scenario (J) Prescribing Support, in this case again. the activity requires the pharmacist to leave the pharmacy and the organisational difficulties are very similar in nature to those discussed in the previous scenario.

7.15.7 Length of Time on the Pharmaceutical Register

The results obtained in this research do not suggest a strong link between professional autonomy and experience, as determined by the length of time that a pharmacist has been registered. In the bi-variate analysis, in half the cases the results were not statistically significant, only with scenarios A, B, G, H, I, and J was significance established. With the main effects model significance at the 5% confidence level was limited to three type 1 scenarios; A, I, and J. In the case of these scenarios it is the pharmacists with the least experience who exhibit the lowest autonomy. It is of note that these three scenarios were also those in which a link between autonomy and size of employing organisation was suggested. This finding, taken together with the conjecture that many pharmacists spend the initial phase of their career with large organisations may indicate an inter-relationship between these two variables. What is clear however is that while experience is not generally strongly linked to professional autonomy, in the case of the type 1 scenarios A, I, and J it is linked.

Scenario (A) Parallel Imports, in this case where a purchasing decision has been taken for commercial reasons it may be very difficult for a relatively inexperienced pharmacist to challenge. It might be expected that as a recently qualified professional the pharmacist would align with the professional agenda, rather than the commercial one. Certainly the sociological literature would lead one to understand that in the early phase of a professional career the orientation is likely to be with the profession rather than with the organisation. Gouldner¹⁴³ described young professional entrants

to organisations as having a “cosmopolitan” orientation, which aligned with the profession rather than the organisation. Later in their career paths many change to a “local” orientation, where the alignment is with the organisation. From the perspective of this research however the evidence is that this orientation does not outweigh the commercial agenda which impacts upon this scenario.

Scenario (I) Domiciliary Visiting, in this case the inexperienced pharmacist is faced with a number of difficulties. There is the difficulty of arranging absence from the pharmacy in order to carry out the service, in addition there is the concern that whilst absent the service may not be adequately carried out, resulting in problems upon return. Also the pharmacist has a dilemma, on the one hand the theoretical base of knowledge is likely to be high, as the pharmacist has recently qualified, on the other hand the experience in practice is not extensive. This means that each pharmacist needs to consider if they are sufficiently confident to undertake this work.

In the case of scenario (J) prescribing advice the issues are very similar to those presenting in scenario (I). On the one hand the pharmacist should have the knowledge base, acquired at university to undertake the work, however they may not have sufficient experience of the practice situation to feel that they can successfully do so. In addition pharmacists who are recently qualified may consider that they need to consolidate their careers in the core areas before diversifying into extended roles.

7.16 The Independent Variables - Summary

Consideration of the independent variables with respect to professional autonomy leads to the conclusion that the most important variable, is occupational status. The main effects modelling of this variable is very powerful evidence that it is the most significant factor in determining the degree of professional autonomy that an individual community pharmacist can exhibit. It is common across all scenarios (with the possible exception of G) and is forcefully expressed.

Of secondary importance is the mode of employment, in terms of full-time or part-time. This is consistently related to autonomy, across the whole spectrum of scenarios.

Gender, size of the employing organisation and experience of the pharmacist appear to be more weakly related to the expression of professional autonomy once other aspects have been accounted for and only their own effect is considered. These variables seem to be related to the individual scenario, and in particular to the specific dimension of professional autonomy encompassed within it. With respect to size of employing organisation and experience the linkage is with a number of type 1 scenarios. With respect to gender the linkage, though weaker is to the type 2 scenarios. In each case an attempt to interpret the action chosen by the practitioner can be made using the agendas model and the knowledge gained within this research of the various dimensions of professional autonomy that operate within the community pharmacy workplace.

7.17 Professional Autonomy in the Pharmacy Workplace

Professional autonomy may be regarded as essentially an abstract concept which lies at the heart of the professional identity and facilitates the exercise of professional judgement. Attempts to understand how it operates in practice are fraught with difficulties, as interrelated concepts such as authority, power,

accountability, professionalism and independence cause confusion and may lead to misinterpretation¹⁴⁴.

In this research an attempt has been made to construct a model of how professional autonomy could function within the pharmacy workplace, which avoids a number of the confusions inherent in, for example, the nursing literature and which is sufficiently robust to enable meaningful conclusions to be drawn. This model addresses the exercise of professional autonomy as a two-phase process.

The first phase is concerned with arriving at a professional judgement following the stimulus of a critical incident, for example a patient presenting with a problem. Within this phase the pharmacist uses professional skills and knowledge, within an appropriate ethical framework to reach a decision, or professional judgement. In arriving at this position the pharmacist is utilising professional autonomy and taking account of the three policy agendas in carrying out this professional task. A key attribute of this process is the ability of the pharmacist to act as “an authority” with regard to the matter under consideration. In operational terms however, nothing has yet happened. The patient for example would not at this point have had their problem resolved. This is because the first phase of the exercise of professional autonomy, that is the construction of the professional judgement or stance, is a necessary but not sufficient condition for the exercise of professional autonomy.

In order for the exercise of professional autonomy the pharmacist needs to be able to translate the stance or professional judgement into a response which represents the outcome for the patient. This is the second phase of the model and for this to occur the pharmacist, again acting within an ethical framework and taking account of the policy agendas needs to be able to act “in authority” in order to proceed to the conclusion.

Thus this model clarifies how authority and the policy agendas impact upon the exercise of professional autonomy. In addition the construction of the model has informed the design of the research instrument as it provides an

indication of a point at which an assessment of the degree of professional autonomy a pharmacist perceives they have, can be captured. The results obtained from the use of the instrument suggest that the respondents were able to provide an indication of the degree of professional autonomy they possessed, within their own individual practice setting. This can be inferred from the range of responses captured and the degree with which the results accord with the theoretical perspective.

The research instrument has been designed so that the first phase of the process has been largely carried out. The scenarios take the pharmacist to the point where the professional judgement or stance has been reached. In each case it is clear, either implicitly or explicitly that the stance arrived at means to proceed with the line of action developed within the scenario. For example to discontinue using the parallel imports, to engage the necessary additional staff, to provide the MDS system etc. The research instrument is then probing the pharmacist's response to this position having been reached ie, what they can, in their particular practice situation, do in order to translate this stance into a response which leads to the desired outcome. The research instrument was therefore specifically targeted at the second phase of the process in which the pharmacist is considered to be primarily acting "in authority" and was intended to provide information about how this second phase, of the process of the exercise of professional autonomy, varies within the community pharmacy workplace.

7.18 Addressing the Research Questions

The analysis of the information gathered from the use of the research instrument has enabled a number of the research questions and hypothesis generated and discussed within the aims of this PhD project to be addressed.

Can the ability of community pharmacists to exercise professional autonomy in the workplace be measured?

It is important to note that this research has not attempted to measure the essentially abstract concept of professional autonomy. Instead it has concentrated upon the expression of professional autonomy within the community pharmacy workplace. The development of the two stage model of the process has enabled a methodology to be designed which can be applied to the second phase of the process. This enables an assessment to be made as to the degree to which the pharmacist perceives they can carry out the second phase. Discussion of the model previously undertaken has advanced the concept that both phases must be completed for the exercise of professional autonomy, therefore, if the second phase cannot be completed the ability of the practitioner to exercise professional autonomy is clearly compromised.

Thus the methodology employed may lay claim to differentiate between practitioners, with regard to the extent to which they consider they can fully exercise professional autonomy. Whilst this may fall some way short of a reference scale on which a pharmacist's ability to exercise professional autonomy can be precisely located, it does provide a form of measurement which is appropriate for this PhD research. This is because it allows assessment to be made of groups and sub-groups of pharmacists in a variety of practice situations, with regard to their perception of their ability to exercise professional autonomy. In addition the instrument has proved to possess considerable sensitivity in use, being able to differentiate between various groups and sub-groups and providing considerable detail, for example about possible indices of autonomy, which could provide the basis for further work in this field. The question of whether pharmacists' perception of their ability to carry out phase two of the professional autonomy process exactly matches their actual ability has been considered and for the purposes of this research it has been accepted as such. This is because they are in the best possible position to judge what they can and cannot do when placed, as they are, within the scenario. The policy agendas, the constraints and the ethical framework are all individual to the pharmacist and impact upon him or her in a unique way. Because of these factors the assumption has been made that the

pharmacists' perception of the degree to which they can carry out phase two of the professional autonomy process equates to the degree to which they could do so.

With regard therefore to the hypothesis derived within the aims of the research, which was:

An instrument can be designed and tested which can assess the degree to which community pharmacists can express professional autonomy in the workplace.

In response to this hypothesis it is suggested that an instrument has been designed and tested which is able, to some degree, to differentiate between community pharmacists with respect to their ability to express professional autonomy in the workplace. Therefore this hypothesis may be regarded as largely proven.

This being the case the remaining research questions and hypotheses will be considered.

Do categories of community pharmacists vary significantly in their ability to exercise professional autonomy in the workplace?

This research question from which the following hypothesis was derived :

There is significant variation between practising community pharmacists with respect to their exercise of professional autonomy.

The answer to this research question is essentially yes, in that analysis of the results gathered by the use of the research instrument indicates that there is considerable variation between community pharmacists, with respect to their ability to exercise professional autonomy within the workplace. This variation has been linked to a number of factors relating to the practice situation and to the scenarios employed within the research instrument. The hypothesis generated must therefore be regarded as having been, in the main proven.

The next hypothesis developed within the aims of the research was:

The exercise of professional autonomy by practising community pharmacists is significantly affected by their experience, as evidenced by time on the Pharmaceutical Register

The experience of community pharmacists was taken to be represented by the length of time that they had been registered with the RPSGB. This was calculated by taking the year of their registration and subtracting it from 1999 which was the year in which the questionnaire was circulated. This gave a spread of years from less than one (for a pharmacist registering in 1999) to fifty with a mean of twenty years.

Experience was explored using bi-variate analysis, binary logistic main effects modelling, and rotated principal component factor analysis.

Based upon these analyses it appears that experience is not a very strong factor in the exercise of professional autonomy. It does not appear to have an effect in at least half of the scenarios and so therefore, it may be that a particular aspect of professional autonomy is involved. The scenarios in which it does seem to be a factor almost exactly match the group of scenarios which are characterised by being linked to the first rotated principal factor (VPC1), ie, type 1 scenarios. The possibility is therefore that at the outset of a pharmacist's career, they may not possess a high degree of the attribute of professional autonomy which primarily involves acting "in authority".

Subsequently this is acquired and is maintained. In some situations, as evidenced by half of the scenarios this does not seem to significantly affect their exercise of professional autonomy. However in those where the requirement to act "in authority" is considerable, less experienced pharmacists do indicate a degree of impairment in their exercise of professional autonomy.

With regard to the hypothesis under consideration on the strength of the evidence it must be regarded as not proven in its entirety, and there is a clear

indication that further work, concentrating on the professional autonomy of newly registered pharmacists would be worthwhile.

The next hypothesis developed within the aims of the research was:

The exercise of professional autonomy by practising community pharmacists is significantly affected by the location of the pharmacy premises from which services are provided

With regard to this hypothesis, information was sought within the questionnaire on pharmacy location. This revealed that 30% of responses came from pharmacists working in town centres and almost 45% from those working in suburban shopping locations. The remaining three types of locations accounted for the final 25% between them. When this distribution of locations was subjected to an initial bivariate analysis using SPSS it was found that location did not affect the exercise of professional autonomy to a statistically significant extent. Because of this finding it was not considered necessary to subject the data to multivariate binary logistic modelling or factor analysis techniques.

With regard to the hypothesis under consideration it must therefore be regarded as not proven within this research. It is possible however that future investigation, targeted upon particular types of location could provide a more definitive conclusion.

The next hypothesis developed within the aims of the research was:

The exercise of professional autonomy by practising community pharmacists is significantly affected by the size of the organisation through which services are provided

With regard to this hypothesis information was sought within the questionnaire as to the size of organisation that employee pharmacists worked within. It is important to note therefore that this question has only been addressed with respect to employee pharmacists.

Respondents were able to indicate whether they worked for a large multiple (over 50 branches), a medium multiple (6 – 50 branches), a small group (2-5 branches) or a single outlet.

The results obtained in the initial bi-variate analysis indicated that variation did occur between pharmacists from differing sizes of organisation with regard to choosing the high autonomy response. This was statistically significant (at the 5% confidence level) with regard to only Four scenarios (A,H,I,J). In addition in these cases the sub-group indicating the least autonomy was the employees of the large multiples. Scenarios A,H,I and J are a sub-set of the type 1 scenarios which are characterised by being linked to the first rotated principal factor (VPC1), which appears to link with the acting “in authority” dimension of professional autonomy. There is therefore a suggestion that in the largest organisations, pharmacists may be affected in the exercise of professional autonomy. However this must be set in the context of the finding that for eight of the twelve scenarios there was no statistically significant difference found with respect to the exercise of professional autonomy by pharmacists from differing sizes of organisation.

With regard to the hypothesis under consideration it must therefore be regarded as not proven.

The next hypothesis developed within the aims of the research was:

The exercise of professional autonomy by practising community pharmacists is significantly affected by the occupational status of the pharmacist

With regard to this hypothesis occupational status was explored using bi-variate analysis, binary logistic main effects modelling, and rotated principal component factor analysis.

The initial bi-variate analysis indicated that occupational status has a very significant effect upon the exercise of professional autonomy. Contractors exhibited the highest levels of autonomy for eleven of the twelve scenarios.

Employees exhibited higher levels of autonomy than locums with respect to eight scenarios, all of these results were statistically significant

The binary logistic main effects modelling indicated that contractors were, over 18 times more likely to choose the high autonomy response than were locums. This modelling also indicated that employees exhibited higher autonomy than locums with respect to nine scenarios, and this was statistically significant in five cases. There were no cases where locums exhibited higher autonomy than employees, significant at the 5% confidence level.

The rotated principal component factor analysis indicated that varimax principal component factor 1 scores (VPC1) for contractors were significantly higher than for employees or locums. Employees had higher VPC2 scores and VPC3 scores than locums, again this was statistically significant.

All of these results indicate strongly that the exercise of professional autonomy is affected by the occupational status of the pharmacist. Contractors have the greatest ability to exercise professional autonomy, far more than that of employees or locums, across a wide range of scenarios. Employees in general possess less ability to exercise professional autonomy than contractors but have more ability than locums. Locums have the least ability to exercise professional autonomy.

With regard to the hypothesis under consideration it must therefore be regarded as proven within this research.

The next hypothesis developed within the aims of the research was:

The exercise of professional autonomy by practising community pharmacists is significantly affected by the gender of the pharmacist

With regard to this hypothesis occupational status was explored using bi-variate analysis, binary logistic main effects modelling, and rotated principal component factor analysis.

The initial bi-variate analysis indicated that gender had a significant effect upon the exercise of professional autonomy. Male pharmacists exhibited higher levels of autonomy for nine of the twelve scenarios, females for one (scenario G) and two results were not statistically significant.

The binary logistic main effects modelling, which being a multivariate technique enables consideration of one variate, in this case gender, after removing the effect of the other variates within the analysis (occupational status, full or part-time working and experience). This provides a better indication of the effect of gender alone and it is clear from this that there is only one statistically significant result which is that for scenario G in which female pharmacists exhibited higher levels of professional autonomy. In each of the other cases the results were not significantly different at the 5% confidence level.

The rotated principal component factor analysis indicated that varimax principal component factor 1 scores (VPC1) for male pharmacists were significantly higher than those for female pharmacists, but that VPC2 and VPC3 levels were slightly higher for female pharmacists.

All of these results indicate that the gender of the pharmacist, when considered as a single variate, is not significant in affecting the exercise of professional autonomy. The effects of other factors therefore account for the variation between male and female pharmacists. Within this research the association between female pharmacists and working part-time has been made, as has the link between female pharmacists and occupational status.

From the analysis carried out we can be confident that gender alone does not affect the exercise of professional autonomy.

With regard to the hypothesis under consideration it must therefore be regarded as not proven within this research.

The next hypothesis developed within the aims of the research was:

The exercise of professional autonomy by practising community pharmacists is significantly affected by the work pattern of the pharmacist ie whether they work full or part-time

With regard to this hypothesis occupational status was explored using bi-variate analysis, binary logistic main effects modelling, and rotated principal component factor analysis.

The initial bi-variate analysis indicated that full or part-time working had a significant effect upon the exercise of professional autonomy. Full-time working pharmacists exhibited higher levels of autonomy for all of the twelve scenarios, and all of the results were statistically significant.

The binary logistic main effects modelling also indicated that working pattern was very important. In the case of every scenario it was found that full-time working pharmacists exhibited higher autonomy and this was statistically significant in every case but one.

The rotated principal component factor analysis indicated that all three varimax principal component factor scores VPC1, VPC2 and VPC3 were higher for full-time working pharmacists than for part-time workers.

All of these results indicate that the working pattern of the pharmacist is significant in affecting the exercise of professional autonomy.

With regard to the hypothesis under consideration it must therefore be regarded as proven within this research.

Following on from this chapter in which the findings have been discussed is a short chapter in which a number of conclusions will be drawn and a recommendation made.

Chapter 8: Conclusions and Recommendations

This research has addressed an extremely important and complex issue at the heart of professional practice, that is the ability of a professional practitioner to exercise professional autonomy within the workplace.

At the outset of this PhD programme, the state of knowledge with respect to this aspect of professional practice in community pharmacy was extremely limited. In addition, there was a scarcity of more general published work on professional autonomy and pharmacy. This lack of understanding of the operation of professional autonomy within community pharmacy, has enabled models of service provision to develop which have not been subjected to rigorous scrutiny in order to ascertain their suitability. There has also been considerable complacency from public and professional policy makers with regard to this aspect of practice. Neither the Royal Pharmaceutical Society's programme to set a professional strategy for the profession - Pharmacy in a New Age¹⁴⁵, nor the Department of Health's programme – Pharmacy in the Future¹⁴⁶ address the issue. The implication is therefore clear; that to these important shapers of policy, a pharmacist's professional autonomy is not a matter which needs to be taken into account. This research, however, calls this conclusion into question. The reason for this has been the demonstration that community pharmacists vary significantly in their ability to exercise professional autonomy in the workplace. And that this variation is strongly linked to occupational status, to full and part-time working, and is more weakly linked to a number of other variables within the practice situation.

These findings suggest that professional autonomy should be considered very carefully indeed by those who seek to develop and implement public and professional policy. In particular attention should be given to:

1. The contractor model
2. The development of public policy for community pharmacy
3. The development of professional policy for community pharmacy
4. The patients' interest

8.1 The Contractor Model

The growth of the multiples, and the increasing service provision by employee pharmacists and locum pharmacists who do not themselves hold the pharmacy contract leads to questioning the continuance of the contractor model from a number of perspectives. However, with respect to professional autonomy it is clear that the contractor model affords considerable support to contractors but is far less supportive to those pharmacists providing services, who do not enjoy contractor status. The model may be regarded as having been weakened from the outset by the other modes of service provision, and successively undermined as these other modes have, over the years, come to constitute the majority of service provision.

This research has indicated that these other forms of provision ie, **employees and locums do not exhibit the same degree of professional autonomy across a broad range of practice situations, as do contractors.** This means that the assumption that community pharmacists are able to provide the same level of professional service, irrespective of their occupational status is incorrect and public and professional policy should take account of this urgently. This is because this finding has implications for the delivery of the service, both at the macro level in terms of the NHS plan, and at the micro level in terms of outcomes for individual patients.

8.2 The Development of Public Policy for Community Pharmacy

Public policy with regard to the NHS was set out in the NHS Plan¹⁴⁷ launched in July 2000 and this was followed in September 2000 by Pharmacy in the Future – Implementing the NHS Plan¹⁴⁸. The introduction to Pharmacy in the Future refers to three major challenges:

- Meeting the changing needs of patients – this challenge refers to making sure that people have access to medicines or pharmaceutical advice easily. That they can get more support in using their medicines in order to

make the best use of them and that they can have confidence that they will receive good advice when they consult a pharmacist.

- Responding to the changing environment – this challenge includes responding to issues such as electronic transmission of prescriptions, NHS Direct and e-pharmacy.
- Enhancing public confidence in the profession – this challenge involves ensuring that public confidence in the profession is maintained by modernising the procedures for dealing with things that go wrong and strengthening professional education and training in order to meet the demands of practice in the future. Clinical governance arrangements for pharmacy are central to this challenge.

Pharmacy in the Future (PITF) is the first programme for pharmacy, and in particular for community pharmacy produced by a government since the inception of the NHS. Although intended to be a comprehensive policy document and link pharmacy into the delivery of the NHS Plan it does not address, or challenge the contractor model nor does it refer to professional autonomy. Whilst there is a commitment to modernising the contractual framework and piloting Local Pharmaceutical Services (LPS) there is no acknowledgement that service provision is affected by the occupational status of the pharmacist involved. This is of major importance because each of the challenges contained within PITF may be seriously affected by the failure to take this dimension into account. The scenarios contained within this research have examined a number of areas contained within these challenges, and in particular the first. In a number of examples relating to the support pharmacists provide to patients, it has been demonstrated that the desired outcome has been compromised to some extent, because of the variation in professional autonomy possessed by categories of practitioners. It has been suggested that this variation is dependent on the strength with which the three policy agendas impact upon the practitioner in the practice situation. It therefore seems essential to take this into account in devising suitable arrangements for service provision. In the event that this is not the

case the desired outcomes are likely to be unrealised. It is aspirational to state that “pharmacists will spend more time focussing on individual patients’ clinical needs and in particular , helping them to get the most out of their medicines” together with “pharmacy services will be designed around the needs of patients, not organisations”¹⁴⁹ when the service is delivered within a highly commercial environment. Within this research there have been clear demonstrations that **a pharmacist’s ability to express professional autonomy can be markedly impaired by the operation of the commercial agenda**, yet there is nothing within Pharmacy in the Future which addresses this situation. This is highly significant because it indicates that public policy still assumes that the ability of pharmacists to deliver high levels of professional service is not affected or compromised by the commercial nature of the organisations that now constitute an increasing proportion of the service. Given the results obtained and discussed this may no longer be a tenable position for public policy makers to hold.

Ultimately Pharmacy in the Future may fail to be fully implemented because it has not taken into account the operation of professional autonomy within the community pharmacy workplace and the forces which support and beset it.

8.3 The Development of Professional Policy for Community Pharmacy

As discussed in Chapter One the Royal Pharmaceutical Society of Great Britain is the major force in the development of professional policy for pharmacy. In 1995 it launched the “Pharmacy in a new age” (PIANA) programme in an attempt to map out a path for the future of pharmacy. The profession was invited to contribute to the formation of a strategy for the pharmacy profession to take pharmacy into the 21st century. To start off the process the Council identified 12 key issues which were considered to have a significant impact upon the future of pharmacy. One of these was identified as “contractual arrangements” which, although a very broad term, and not necessarily taking account of the contractor model, does at least suggest that

there was a level of awareness that this could be important. In the event however this has not proved to be a thrust of professional policy as developed by the Society. In an article in the Pharmaceutical Journal¹⁵⁰ at the start of 2000, the President outlined her vision for the future, and reviewed the achievements of the Pharmacy In A New Age strategic process. It was noticeable that no reference was made to any aspect of the models of service provision within community pharmacy. In addition the issues of professional autonomy which have been considered within PIANA have centred upon aspects of political autonomy and been concerned with influencing policy decisions by government, on issues such as prescribing rights for pharmacists.

Professional policy has not engaged the issues of occupational status in a meaningful manner either. This may be due to reluctance by the professional body, the RPSGB, to challenge the practice situation of the great majority of its membership. It is also been policy that the RPSGB does not involve itself in the commercial environment and may be reluctant to take forward policy which would be controversial, if not unacceptable to the pharmacy multiples. Nevertheless this issue is of great importance to the profession and can not be avoided. If pharmacists use their professional judgement to form a view of what is in their patient's best interests and then are not able to translate that into the appropriate action then it is questionable whether they are acting professionally. The results of this research, which indicate strongly that this is the case, should give the professional body cause for concern and lead them to examine the issue of the exercise of professional autonomy very carefully. The realisation that the majority of pharmacists now practise in situations where they are unable to fully exercise professional autonomy must call into question pharmacy's claim to professional status.

8.4 The Development of Commercial Policy for Community Pharmacy

As discussed in Chapter One commercial policy in community pharmacy is shaped by the organisations that represent the interests of the companies providing services and the individual organisations, both large and small. This diversity has not however led to an unfocussed approach to policy development because of the unifying influences of seeking profit and market share. This is in marked contrast to the other policy agendas and is the principal reason for the dominance of the commercial policy agenda. Additional factors that add to the focus are the lack of input from the professional employees of the commercial companies and the reluctance of the professional body to challenge commercial policy.

Thus the companies have been able to achieve control of policy direction and ensure that it meets organisational requirements. This is borne out by the results of this research, which indicate that commercial policy development has proceeded to such an extent that it is the main determinant of the outcomes patients receive from their interactions with pharmacists across a broad range of practice situations.

8.5 The Patient's Interest

This research has sought to explore the exercise of professional autonomy by community pharmacists within their practice setting ie, the community pharmacy. Each scenario was set in this context and each scenario was designed to reflect realistic situations within community pharmacy. All of these situations impacted upon patients, sometimes directly and sometimes indirectly. Therefore the outcomes of the process of the exercise of professional autonomy which took place in response to the situations presented in the scenarios would constitute the patient's experience. As was discussed in Chapter Two pharmacists subscribe to a code of ethics in which the patient's interest is paramount. The current issue¹⁵¹ states that "pharmacists' prime concern, irrespective of their sphere of work, must be for

the wellbeing and safety of patients". Given such a forthright commitment it might be expected that patients could rely unreservedly upon their interests being paramount. Within this research however there are strong indications that the ability of community pharmacists to carry out this professional obligation may vary considerably. It is clear from the analysis of the results obtained that patients may receive differing outcomes, dependent upon the ability of the pharmacist to exercise professional autonomy.

From the perspective of the patient's interest this must be a matter of considerable concern. Their interest with respect to this matter can only be truly safeguarded, if each and every community pharmacist that they deal with is in a position to exercise professional autonomy. If this is not the case, and this research suggests it is not, then it becomes a matter of chance as to whether or not they will receive service from a practitioner who can exercise professional autonomy on their behalf. This is clearly unacceptable and public and professional policy should be developed to ensure that pharmacists' professional autonomy is not impaired to the extent that patients be disadvantaged.

8.6 Generalisability of the Findings

The findings of this research are specific for community pharmacy, in England, at a point in time, but may well be of interest in other professions where a variety of practice models exist. In particular where a professional service may be provided in a context that is affected by the three policy agendas discussed. This most obviously includes services provided within the private sector, as is the case with community pharmaceutical services, but is not restricted to this sector. It is clear, for example, that budgetary constraints within the public sector may bring considerable pressures to bear upon practitioners. General medical practitioners, for example, are under increasing pressure to ensure that their prescribing costs are within the limits of the prescribing budget set for the Primary Care Trust that they practise

within. They are also directed by edicts emanating from national guidance provided by N.I.C.E. (the National Institute for Clinical Excellence). This represents a considerable challenge to their professional autonomy and subjects them to considerable peer pressure with respect to their performance. A further, and in some ways more overt challenge, is presented by the recent introduction of unified budgets in primary care. In this context, general practitioners are faced with audit of their referral rates to specialist care. Increasingly Primary Care Trusts, faced with huge variation in referral rates, and the associated commissioning costs, are issuing “guidance” about when to refer for a variety of conditions. This presents clinicians with a considerable constraint upon their professional autonomy and may be considered to significantly affect their ability to act in the patient’s interest.

8.7 Summary

Employees and locums working for organisations now carry out the great majority of the service and the results of this research indicate that the service they provide is affected by this change in the practice situation. The results also indicate that the service provided by part-time working pharmacists may differ significantly from that provided by full-timers, and that this effect is still there after exclusion of other factors.

The dimension examined in this research is professional autonomy, which is central to professional practice. Pharmacists undergo a lengthy period of training, representing a considerable investment by themselves, and by the public, to equip them to use their professional judgement in the best interests of their patients. This is however of limited value if the practice situation constrains the exercise of professional autonomy. Pharmacists, in order to act in the best interests of patients need to use their professional training to understand the situation that they are presented with. Subsequently they need to form a judgement about what should be done, and crucially they must have the professional autonomy to translate this into their response and

provide the outcome that is in the patient's best interest. All of this process is required for the full expression of professional autonomy. Within this research it has been demonstrated that employees, locums and part-timers experience considerable constraints in exercising professional autonomy across a wide range of practice scenarios.

Commercial policy: The pressures that have been brought to bear on the contractor model have been in the main commercial ones. Companies have sought to increase market share and profitability and seen the contractor model, in which each pharmacy has a separate contract and is treated as a separate small business, as vulnerable. By building up multiple chains these companies have created economies of scale and secured competitive advantage, and from the perspective of their investors and shareholders this may be entirely satisfactory. Commercial policy makers, however, should be aware that a professional service is at the heart of the business, and that the customer is the publicly funded NHS. In this situation, they should take great pains to ensure that their professional employees are able to act as professionals and exercise autonomy in the provision of services to patients/clients. If they fail to do so, or worse still, if they seek to constrain professional autonomy, they will contribute significantly to the deprofessionalisation of community pharmacy. In the short term this might be acceptable to commercial organisations as they may be able to contain wage costs and increase margins. However if the service provided is not deemed to be of high professional quality by the purchaser ie, the NHS, then alternative methods of provision may be sought. In the current climate these could include direct service provision via Primary Care Trusts, by nurses, who with the extension to nurse prescribing could both prescribe and dispense for their patients, by NHS Walk-in Centres and by internet based suppliers. All of these eventualities should cause commercial policy makers in pharmacy to examine their strategies and ensure that they are able to provide and support a fully professional service. A recommendation of how this might be achieved is given below.

Public policy: This has not sought to address the change in the provision of community pharmacy services and implicit in this stance is the tacit assumption that the service provided is essentially the same, irrespective of whether it is supplied by a contractor, an employee or a locum. From this standpoint a patient, or other user of community pharmaceutical services should not need to be concerned about the occupational status, or the hours worked by the community pharmacist providing the service. This assumption has been challenged by the results obtained within this research, which have demonstrated considerable variation among community pharmacists, related to whether they practise as a contractor, an employee or a locum and whether they work full or part-time. This variation is of very great practical importance as it impacts directly upon patients and other service users. My conclusion is that the findings of this research render the *laissez faire* approach of public policy untenable. Public policy should take account of the overwhelming force of the commercial agenda within the present arrangements and seek to redress the balance by changing the contractual arrangements for the provision of the service. A recommendation of how this might be achieved is given below.

Professional policy: Whilst recent years have seen an increase in professional policy making, in particular by the RPSGB via the PIANA initiative, this has however not been focused upon the community pharmacy workplace and has not considered professional autonomy. In particular the erosion of professional autonomy within the largest sector of the pharmaceutical professional workforce has not been acknowledged. The consequences for the pharmacy profession of continuing to do so are severe. This is because the community pharmacy workforce comprises over 60% of the profession, and if the professional status of community pharmacists is diminished, it is difficult to see how pharmacy could maintain the claim to full professional status.

As the work undertaken within this research is the first substantial exploration of the operation of professional autonomy within community pharmacy, it is

not surprising that professional policy has not, hitherto, taken account of the issues. Now, however that they have been explored within this research it is vital, because of the importance of the findings, that professional policy takes account of how the changes in the pharmacy workforce have enabled professional autonomy to be eroded and professional status threatened. Professional policy should now ensure that it fully supports community pharmacists, whatever their occupational status or working pattern, to exercise professional autonomy on behalf of their patients/clients. A recommendation of how this might be achieved is given below.

8.8 Recommendation

The contractor model has been of value in serving both the public and the profession, but has in recent years been undermined, and should now be considered redundant in its present form.

In order to ensure that patients receive the best quality of service possible from their community pharmacists the overwhelming influence of the commercial agenda must be constrained and brought into balance with the other policy agendas. The results of this research clearly indicate that the commercial agenda is so dominant, over a wide range of practice situations that it swamps the other agendas. The only grouping who are consistently able to resist the commercial agenda, and exercise professional autonomy are contractor pharmacists, and their numbers are declining as has been discussed. To address this situation therefore will require a radical overhaul of the contractual arrangements, and the opportunity for innovative solutions should be fully explored.

One model, which may be worthy of exploration, to constrain the commercial agenda, would be the separation of professional and commercial accountability. In this case, the contract to provide pharmaceutical services could be held by the pharmacist, who would be professionally accountable to the Health Authority or Primary Care Trust. The pharmacist could be

employed by a commercial organisation, who would provide the resources of the practice, but would not have the degree of control, via the commercial agenda that is the case at present. The pharmacist could therefore exercise professional autonomy on behalf of patients / clients in accordance with their professional training and knowledge of what is in their best interests. Any attempt by the commercial organisation to constrain the expression of professional autonomy by the pharmacist could be resisted by the pharmacist, who would in effect hold the contract. In case of an impasse being reached the Health Authority or Primary Care Trust could be brought into the discussions to represent the public interest. This is a role that they cannot carry out under the present contractual arrangements, and would be a powerful force to constrain the commercial agenda. In this way the users of this important NHS service, may be assured of the benefits accruing from the complete exercise of professional autonomy by their community pharmacists.

8.9 Limitations of the Work Undertaken (and suggestions for further work)

The exploration of professional autonomy undertaken within this research has considered a number of relevant variables in order to determine how they affect the professional autonomy of community pharmacists. It is evident however that not all relevant variables have been examined. A clear limitation was the failure to include educational attainment. This was not considered because of the fact that community pharmacy was a graduate profession and that postgraduate qualifications, particularly Masters degrees and Doctorates were more commonly encountered in other areas of pharmacy practice. Whilst this is true it is nonetheless the case that simply looking at postgraduate qualifications may be taking too narrow a view of educational attainment. It would for example have been useful to have looked at continuing professional development in its entirety in order to fully address the influence of this dimension upon professional autonomy.

Another limitation arises from not considering the ethnicity of the pharmacist. This could be important because pharmacists from ethnic minority groups were found by Hassell et al¹⁵² to comprise 23% of her sample which included all of the pharmacy graduates for 1991. Since then the trend is upward with just 52% of the applicants accepted onto U.K. pharmacy courses of white ethnic origin¹⁵³. It is therefore clear that further work in this area should take account of this dimension.

This work was started with a realistic appraisal of the difficulties inherent in making a worthwhile contribution to knowledge in the field of professional autonomy, in a practice setting. One aspect of the difficulty was the lack of any validated instrument measuring the professional autonomy of community pharmacists. Because of this, it was necessary to develop and test one. Whilst the instrument appears to have been extremely useful it is fair to say that it has not, within this research been subjected to the rigorous tests for validity and reliability that would be required of an established instrument. Further work could therefore be carried out in order to attain greater confidence in the validity and reliability of the instrument.

The response rate for the main survey must also give rise to some concern. Although efforts made to establish that the respondents were representative of the community pharmacy workforce were successful it is a limitation that responses were not forthcoming from the majority of pharmacists who received the questionnaire. A follow-up mailing to non-responders would undoubtedly have improved the response rate, however funding constraints ruled this option out.

Finally, with regard to further work, the understanding gained with respect to the classification of scenarios could now be used to create further examples, more specifically targeted at components of professional autonomy. Thus allowing the interrelationships between the policy agendas and the operation of professional autonomy in the community pharmacy workplace to be more extensively explored.

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APPENDIX 1

The version of the questionnaire used for the first pilot survey

Community Pharmacy Scenarios

This questionnaire has been designed to explore issues of autonomy in community pharmacy as part of my PhD project at Sheffield Hallam University. This work has been funded by the Dept. Of Health and has received support from the R.P.S.G.B.

The first part of the questionnaire requests information about the respondent. The second part consists of a series of scenarios which relate to situations in community pharmacy.

The scenarios have been developed using focus groups and the present stage of the research is to pilot these with community pharmacist practitioners.

I would like you to work through the questionnaire following the general guidance given over-leaf and return it to me at the following address using the envelope provided.

Peter Magirr MRPharmS
9 The Lawns
Sheffield S11 9FL

I would also be grateful for any comments you may have on the scenarios so please feel free to annotate the questionnaire or ring me on the following numbers:

Work 0114-2462636 Home 0114-2585399

Community Pharmacy Scenarios

This questionnaire has been designed to explore issues of autonomy in community pharmacy as part of a PhD project at Sheffield Hallam University. The first part of the questionnaire requests information about the respondent. The second part consists of a series of scenarios which relate to situations in community pharmacy.

In each case consider the scenarios in the context of the pharmacy where you normally work either as a contractor or an employed pharmacist and choose in each case the option which most closely matches what you would do.

If you are a self employed Locum consider the scenarios with respect to the pharmacy in which you have undertaken your **most recent** locum engagement.

1 Are you employed in community pharmacy?

Yes ☐

No ☐

2 Is your main employment in community pharmacy?

Yes ☐

No ☐

3 Do you work

Full time (*on average over 35 hours per week*) ☐

Part time (*on average less than 35 hours per week*) ☐

If *employed part-time*, please give the job title of any other position of paid employment

.....

4	Are you	Yes	No
	A contractor pharmacist	<input type="checkbox"/>	<input type="checkbox"/>
	An employee pharmacist	<input type="checkbox"/>	<input type="checkbox"/>
	A locum pharmacist	<input type="checkbox"/>	<input type="checkbox"/>

5	If you are an employee, do you work for <i>(please tick one box only)</i>	
	A multiple (over 50 branches)	<input type="checkbox"/>
	A multiple (over 20 branches)	<input type="checkbox"/>
	A medium group (over 5 branches)	<input type="checkbox"/>
	A small group (2-5 branches)	<input type="checkbox"/>
	An independent	<input type="checkbox"/>
	Variable	<input type="checkbox"/>

6	Which of the following describes most closely where you normally work? <i>(please tick one box only)</i>	
	A pharmacy sharing premises with a GP surgery	<input type="checkbox"/>
	A pharmacy in a supermarket	<input type="checkbox"/>
	A pharmacy in a town centre	<input type="checkbox"/>
	A pharmacy in a suburban shopping location	<input type="checkbox"/>
	A pharmacy situated in a rural location	<input type="checkbox"/>

- 7 Are you aged:
- | | |
|---------|--------------------------|
| 21 - 30 | <input type="checkbox"/> |
| 31 - 40 | <input type="checkbox"/> |
| 41 - 50 | <input type="checkbox"/> |
| 51 - 60 | <input type="checkbox"/> |
| over 60 | <input type="checkbox"/> |

- 8 How many years have you been registered with the RPSGB?

- | | |
|---------|--------------------------|
| 0 - 3 | <input type="checkbox"/> |
| 4 - 5 | <input type="checkbox"/> |
| 6 - 10 | <input type="checkbox"/> |
| 11 - 20 | <input type="checkbox"/> |
| 21 - 30 | <input type="checkbox"/> |
| over 30 | <input type="checkbox"/> |

- 9 Are you

- | | |
|--------|--------------------------|
| Female | <input type="checkbox"/> |
| Male | <input type="checkbox"/> |

- 10 In which Health Authority do you currently work
-

(A)

You have become concerned about the quality of the Parallel Imported drugs that you are dispensing, you have had misgivings for some time but have now come to the conclusion that they are not of acceptable quality and you do not wish to continue using them.

Would you ?

1. Change to a higher quality products, without needing to refer to anyone else.
2. Change to higher quality products, but need to inform those in authority of the decision.
3. Seek permission from those in authority for a change to higher quality products, with the expectation that your request would be granted.
4. Seek permission from those in authority for a change to higher quality products, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority for a change to higher quality products, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority for a change to higher quality products, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority for the change to higher quality products as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(B)

You do not have enough staff to carry out the required pharmaceutical tasks, you have made every possible effort and used all known techniques to manage the workload with the existing staff and have reached a stage where you are certain that the work is being handled as efficiently as possible. In spite of all your efforts however you realise that you need additional staffing

Would you ?

1. Engage the necessary additional staff to carry out the work, without needing to refer to anyone else.
2. Engage the necessary additional staff to carry out the work, but need to inform from those in authority of the decision.
3. Seek permission from those in authority for the necessary additional staff be engaged, with the expectation that your request would be granted.
4. Seek permission from those in authority for the necessary additional staff be engaged, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority for the necessary additional staff be engaged, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority for the necessary additional staff be engaged, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority for the necessary additional staff to be engaged as you are sure that your request would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(C)

In the pharmacy a person acting as carer to an elderly patient explains that the patient is confused about taking their medication and requests that you supply a monitored dosage system

You know the patient and after discussing the matter with the carer agree that this would be the best option for this particular patient.

Would you ?

1. Supply the system, without needing to refer to anyone else.
2. Supply the system but need to inform those in authority of the decision.
3. Seek permission from those in authority to supply the system, with the expectation that your request would be granted.
4. Seek permission from those in authority to supply the system with the expectation that your request would carry some weight
5. Seek permission from those in authority to supply the system with the expectation that the decision will be made with little regard to your request
6. Seek permission from those in authority to supply the system with the expectation that no account will be taken of your request
7. Decide not to seek permission from those in authority to supply the system as you are sure that it would be refused

☐

Insert the no. of the option which most closely matches what you would do.

(D)

You have decided that calendar packs of 28 should be issued because you are convinced that this helps your patients to take their medication properly, therefore you have implemented a policy of issuing in 28's. However the local GPs issue prescriptions in 30's and want you to dispense in 30's, even where this means adding 2 tablets to a calendar packed medication. The senior partner has visited you and insisted that you must comply with their request or matters will be taken further.

Would you ?

1. Continue with your policy of issuing 28's, without needing to refer to anyone else.
2. Continue with your policy of issuing 28's, but need to inform those in authority of the decision.
3. Seek permission from those in authority for continuing with the policy of issuing 28's, with the expectation that your request would be granted.
4. Seek permission from those in authority for continuing with the policy of issuing 28's, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority for continuing with the policy of issuing 28's, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority for continuing with the policy of issuing 28's, with the expectation that no account will be taken of your request
7. Decide not to seek permission from those in authority for continuing with the policy of issuing 28's, as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(E)

At the pharmacy in which you work you realise that you are too busy with prescriptions to spend even the minimum possible time counselling patients. You have analysed your options and are certain that in this situation a second pharmacist, which might be an ideal solution is not possible, however you do have two qualified dispensers. This being the case you decide to draw up a dispensary protocol in which the dispensers will carry out the dispensing function with regard to repeat prescriptions. This would enable you to leave the dispensary and provide the counselling and advice that your patients require.

Would you ?

1. Implement the dispensing protocol, without needing to refer to anyone else.
2. Implement the dispensing protocol, but need to inform those in authority of the decision.
3. Seek permission from those in authority that the dispensing protocol be implemented, with the expectation that your request would be granted.
4. Seek permission from those in authority that the dispensing protocol be implemented, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority that the dispensing protocol be implemented, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority that the dispensing protocol be implemented, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority for implementing the dispensing protocol as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(F)

At the pharmacy in which you work you are asked by a local residential home to provide an MDS (monitored dose system) for their patients. You currently dispense prescriptions for the home, and have come to the conclusion that the provision of an appropriate system would definitely benefit the patients

Would you ?

1. Provide an appropriate MDS, without needing to refer to anyone else.
2. Provide an appropriate MDS, but need to inform those in authority of the decision.
3. Seek permission from those in authority that an appropriate MDS be provided, with the expectation that your request would be granted.
4. Seek permission from those in authority that an appropriate MDS be provided, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority that an appropriate MDS be provided, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority that an appropriate MDS be provided, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority for providing an appropriate MDS as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(G)

In the pharmacy you are approached by a patient who informs you that they are having great difficulty in maintaining control of their asthma symptoms since their medication was changed from the branded form to the generic form. The patient asks you to provide them with their medication in the original branded form.

You know the patient and consider that they are describing a genuine situation, you also know that the prescriber is committed to generic prescribing and will not change their prescribing in this case to meet the increased cost of the drugs.

Would you ?

1. Supply the drugs in the branded form, without needing to refer to anyone else.
2. Supply the drugs in the branded form but need to inform those in authority of the decision.
3. Seek permission from those in authority to supply the drugs in branded form, with the expectation that your request would be granted
4. Seek permission from those in authority to supply the drugs in branded form with the expectation that your request would carry some weight
5. Seek permission from those in authority to supply the drugs in branded form with the expectation that the decision will be made with little regard to your request
6. Seek permission from those in authority to supply the drugs in branded form with the expectation that no account will be taken of your request
7. Decide not to seek permission from those in authority to supply the drugs in branded form as you are sure that it would be refused

☐

Insert the no. of the option which most closely matches what you would do.

(H)

You are asked by a researcher to take part in a practice research project: The purpose of the research project has been explained to you and you support the research aims, which you consider are ethical, and would benefit the pharmacy profession. It would not cause very much disruption to the running of the pharmacy or extra work as the researcher would silently observe the dispensing activities and record events using a notebook. The researcher would need to be sited in, or adjacent to the dispensary throughout one working week.

Would you ?

1. Authorise the research to go ahead, without needing to refer to anyone else.
2. Authorise the research to go ahead, but need to inform those in authority of the decision.
3. Seek permission from those in authority for the research to go ahead, with the expectation that your request would be granted.
4. Seek permission from those in authority for the research to go ahead, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority for the research to go ahead, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority for the research to go ahead, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority for the research to go ahead as you are sure that it would be refused.

☐

*In
sert the no. of the option which most closely matches what you would do.*

(I)

You are asked by the Health Authority to take part in a domiciliary visiting project, you have been fully briefed by the pharmaceutical adviser and are convinced that the project will deliver significant benefits to the patients. The Health Authority are providing sufficient funding for locum cover whilst the visits are made, and you know of a reliable locum who would undertake the task.

Would you ?

1. Agree to take part in the project, without needing to refer to anyone else.
2. Agree to take part in the project, but need to inform those in authority of the decision.
3. Seek permission from those in authority to take part in the project, with the expectation that your request would be granted.
4. Seek permission from those in authority to take part in the project, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority to take part in the project, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority to take part in the project, with the expectation that no account will be taken of your recommendation.
7. Decide not to seek permission from those in authority to take part in the project as you are sure it would be refused.

Insert the no. of the option which most closely matches what you would do.

(J)

You are asked by the local GPs to help rationalise their prescribing, they are considerably over budget and would like to purchase your pharmaceutical expertise in order to bring the situation under control. Most of the prescriptions dispensed at the pharmacy come from the local GPs and you have a good idea of how to tackle the problem. After giving the matter considerable thought you decide you wish to take on the work of providing prescribing advice.

Would you ?

1. Agree to provide prescribing advice, without needing to refer to anyone else.
2. Agree to provide prescribing advice, but need to inform those in authority of the decision.
3. Seek permission from those in authority to provide prescribing advice, with the expectation that your request would be granted.
4. Seek permission from those in authority to provide prescribing advice, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority to provide prescribing advice, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority to provide prescribing advice, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority to provide prescribing advice as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(K)

You are approached by a patient who informs you that he is an addict and has a prescription for Methadone to be dispensed on a daily basis. The patient asks if he can use the pharmacy for this purpose. You consider the use of Methadone to be appropriate for this patient and you wish to provide this service.

Would you ?

1. Agree to provide the service, without needing to refer to anyone else.
2. Agree to provide the service, but need to inform those in authority of the decision.
3. Seek permission from those in authority to provide the service, with the expectation that your request would be granted.
4. Seek permission from those in authority to provide the service, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority to provide the service, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority to provide the service, with the expectation that no account will be taken of your request.
7. Decide not to seek permission from those in authority to provide the service as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

(L)

You realise that some of your patients are not taking all of the medication they collect on repeat prescriptions. After giving the matter considerable thought you decide to become more actively involved in trying to minimise the waste that this involves and help them in the management of their medication. You design a protocol which ensures that patients with repeat prescriptions are asked about compliance and given the opportunity to indicate that they do not require a prescribed item. The item is then not dispensed and the prescriber is informed. After discussing the scheme with surgery, and receiving their approval you decide you would like to proceed and introduce the scheme.

Would you ?

1. Introduce the scheme, without needing to refer to anyone else.
2. Introduce the scheme, but need to inform those in authority of the decision.
3. Seek permission from those in authority for the introduction of the scheme, with the expectation that your request would be granted.
4. Seek permission from those in authority for the introduction of the scheme, with the expectation that your request would carry some weight in the final decision.
5. Seek permission from those in authority for the introduction of the scheme, with the expectation that the decision will be made with little regard to your request.
6. Seek permission from those in authority for the introduction of the scheme, with the expectation that no account will be taken of your recommendation.
7. Decide not to seek permission from those in authority for the introduction of the scheme as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

APPENDIX 2

Analysis of results from first pilot survey

Analysis of Results from Initial Pilot

Fig. A.1 Mean Autonomy Scores

	Mean	Std Dev	Label
A	3.00000	1.56125	
B	3.42424	1.45839	
C	1.84848	1.41689	
D	3.36364	2.17684	
E	2.30303	1.48923	
F	2.63636	1.22010	
G	1.78788	1.05349	
H	3.00000	1.29904	
I	2.54545	1.25227	
J	2.36364	1.11294	
K	1.36364	.78335	
L	2.12121	1.13901	

Number of Cases = 33

The initial analysis of the scenarios indicated a range of mean autonomy 'score' with responses to scenarios' C: MDS Patient, G: Asthma Patient and K: Methadone Patient indicating higher levels of autonomy. (In this format high autonomy is indicated by a low score as the high autonomy response was 1 and the lowest autonomy response was 7). It may be significant that the three scenarios in which the highest degree of autonomy is indicated all involve individual patients.

Using the Statistical Package for Social Sciences (SPSS) an initial extraction of the high autonomy responses from the scenarios was carried out to determine the correlation between responses. This is shown below as a correlation matrix. From this it is possible to read off the correlation between any two scenarios with respect to the high autonomy i.e. indicated 1, responders.

Correlation Matrix:

	A	B	C	D	E	F	G
A	1.00000						
B	.60389	1.00000					
C	.32491	.48577	1.00000				
D	.34941	.53066	.44396	1.00000			
E	.47042	.28428	.02244	.33125	1.00000		
F	.44294	.59872	.41905	.54551	.33772	1.00000	
G	.05700	.14176	.06154	.25271	.38087	.18124	1.00000
H	.60093	.72578	.18676	.45309	.56537	.55207	.20551
I	.36763	.46822	.11848	.46376	.47833	.50203	.30363
J	.26977	.51809	.39274	.35648	.23311	.39960	.41433
K	.12776	.21635	.41721	.39651	.49192	.53503	.32359
L	.19330	.38195	.03110	.20853	.56720	.39250	.49087

	H	I	J	K	L
H	1.00000				
I	.67235	1.00000			
J	.56199	.50348	1.00000		
K	.33780	.33304	.45294	1.00000	
L	.61249	.63138	.58044	.43939	1.00000

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .76938
 Bartlett Test of Sphericity = 200.45297, Significance = .00000

Following on from the correlation matrix the initial statistics for the principal component analysis were extracted and displayed in the form shown below.

Fig A.2 Initial Statistics for Principal Component Analysis

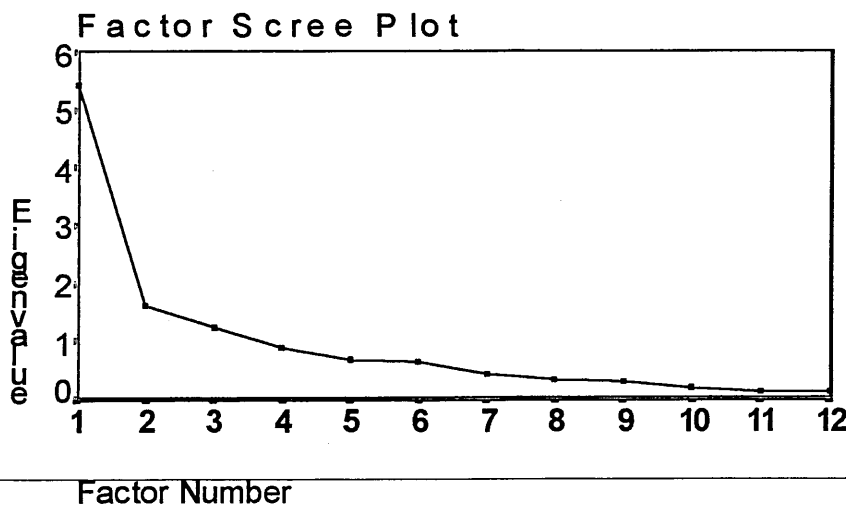
Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
A	1.00000	*	1	5.42300	45.2	45.2
B	1.00000	*	2	1.60626	13.4	58.6
C	1.00000	*	3	1.23686	10.3	68.9
D	1.00000	*	4	.87807	7.3	76.2
E	1.00000	*	5	.68192	5.7	81.9
F	1.00000	*	6	.64440	5.4	87.3
G	1.00000	*	7	.42866	3.6	90.8
H	1.00000	*	8	.34231	2.9	93.7
I	1.00000	*	9	.30103	2.5	96.2
J	1.00000	*	10	.18944	1.6	97.8
K	1.00000	*	11	.13743	1.1	98.9
L	1.00000	*	12	.13061	1.1	100.0

PC extracted 3 factors.

From the table it can be seen that the first factor or component accounts for 45.2% of the variation found in the correlation's described above. The second component accounts for 13.4% and the third 10.3%. Thus the first three components appear to account for 68.9% of the variation, with the first accounting for the largest proportion.

This information is presented graphically below in terms of a scree plot:

Figure A.3 Scree Plot using SPSS



Here SPSS labels the components as factors and their variances as eigenvalues. This initial analysis has suggested that three components are responsible for the majority of the variation recorded, therefore they will be examined in order to try and increase understanding of the situation. The convention is to retain those components with variances greater than unity. The three principal components have been extracted and their loadings or linear coefficients are displayed in the matrix below ,together with the scenarios to which they relate.

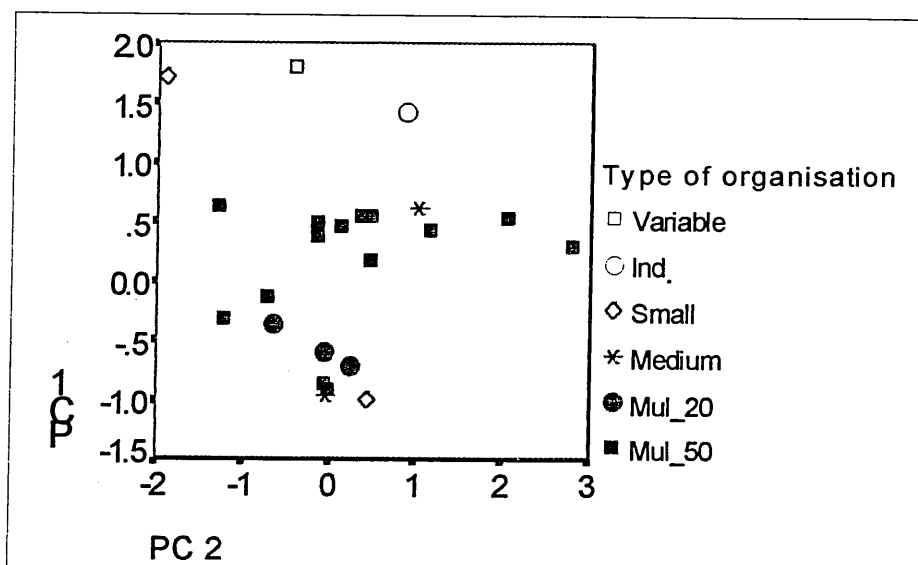
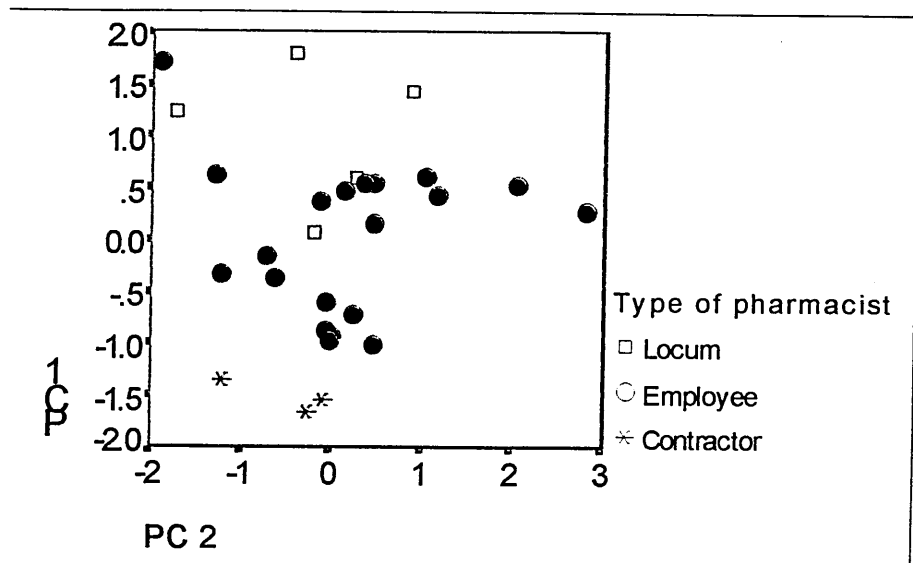
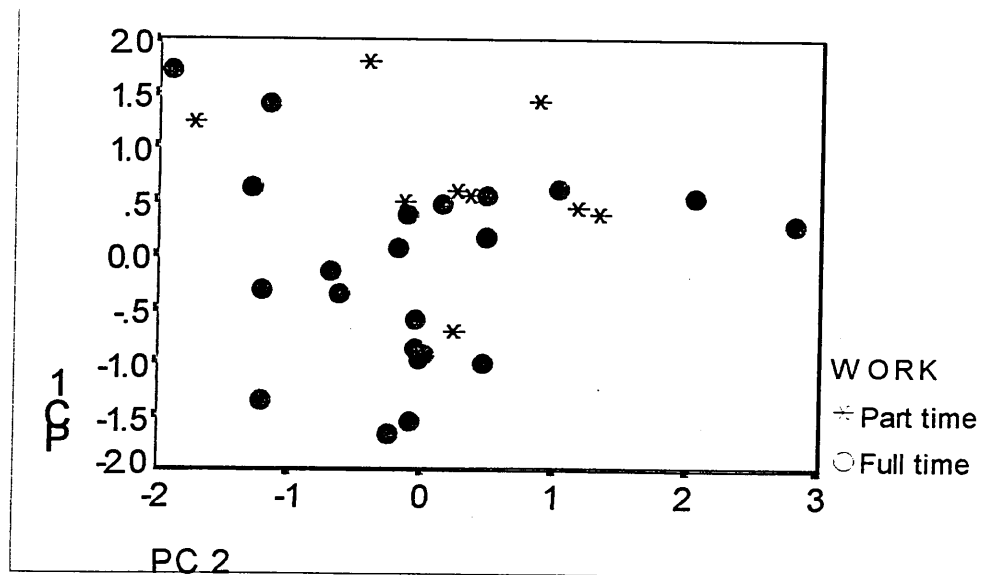
Fig. A.4 Factor Matrix:

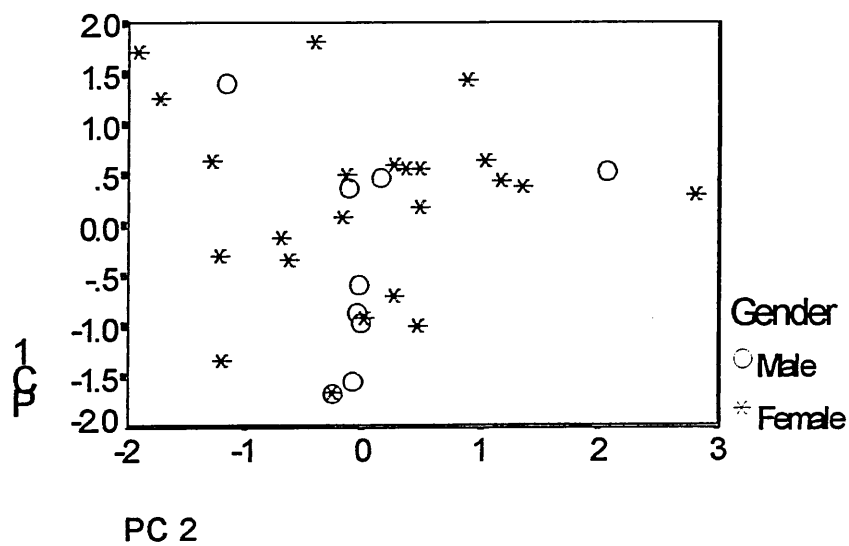
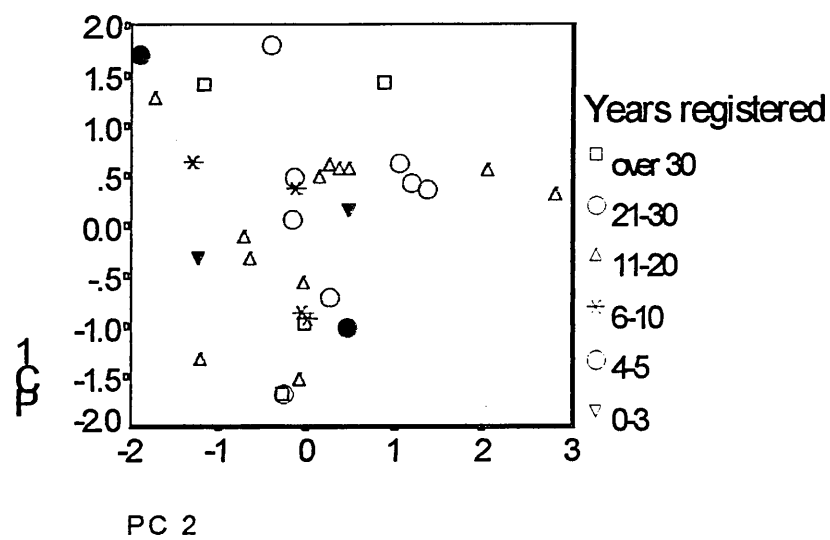
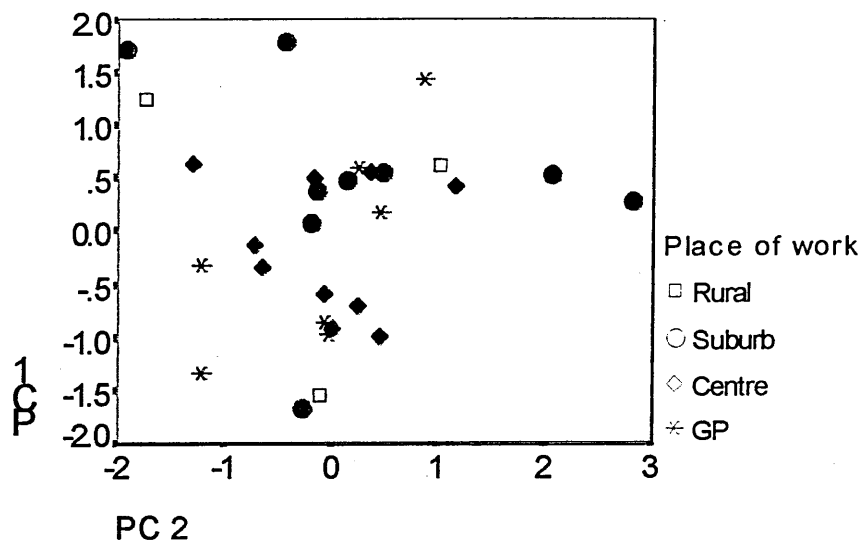
	Factor 1	Factor 2	Factor 3
A	<u>.60784</u>	.34977	-.47553
B	<u>.76140</u>	.39804	-.20072
C	<u>.45687</u>	<u>.61252</u>	.47755
D	<u>.66195</u>	<u>.29726</u>	.17507
E	<u>.64585</u>	-.38154	-.21673
F	<u>.74793</u>	.25299	.09768
G	<u>.44320</u>	-.53359	.33913
H	<u>.84048</u>	-.01440	-.37732
I	<u>.75345</u>	-.21710	-.20019
J	<u>.71124</u>	-.08691	.25548
K	<u>.61562</u>	-.12646	.53994
L	<u>.70356</u>	-.54475	-.03087

From the matrix it can be seen that Factor 1 is most strongly associated with eleven of the scenarios: A,B,D,E,G,F,H,I,J,K & L. component 2 is most strongly associated with scenario C, and component 3 is not most strongly associated with any scenario.

The interpretation of this finding is centred around dimensions of the 12 scenario measures of autonomy which are represented by each of the principal components. Each of these represents some dimension of autonomy in terms of the original variance. However it is not possible to establish definitively what these are, and with the limited number of respondents within the sample it is would not be prudent to draw too much in the way of inferences. At this stage all we can say is that there is an indication that we may be measuring some dimension(s) of 'autonomy'.

In order to take forward an exploration of the variables of interest within the research we can plot the first principal component value (PC1 value) against the second principal component value (PC2 value) for each.





APPENDIX 3

The version of the questionnaire used for the second pilot survey

Community Pharmacy Scenarios

Dear Colleague

This questionnaire has been designed to explore issues of autonomy in community pharmacy as part of a PhD project at Sheffield Hallam University. This Work has been funded by the Department of Health and has received support from the R.P.S.G.B.

As a practising community pharmacist myself I know the pressures on your time are immense but if you can complete the questionnaire and return it to me for analysis you will be adding considerably to our understanding of how community pharmacists approach professional autonomy. This area is, quite simply, vital to our future as primary care practitioners and I therefore urge you to return the completed questionnaire to me as soon as you can.

The first part of the questionnaire consists of a series of scenarios which relate to situations in community pharmacy. In each case consider the scenarios in the context of the pharmacy where you normally work, either as a contractor or an employed pharmacist. If you are a self employed Locum consider the scenarios with respect to the pharmacy in which you have undertaken your **most recent** locum engagement.

Each scenario depicts a situation which could arise in community pharmacy, in every case it is important that you **place yourself within the scenario** and respond by picking the option which most closely matches what **you would do** in the situation.

After you have made your choice you are asked to indicate whether you have experience of a situation similar to that depicted in the scenario, and to indicate how important you consider the issue raised in the scenario is in terms of professional autonomy.

Following on from the scenarios is a short section where you are asked for some details about yourself.

Thank you for your assistance with this project.

Peter Maginn

(A)

You have become concerned about the quality of the Parallel Imported drugs that you are dispensing, you have had misgivings for some time but have now come to the conclusion that they are not of acceptable quality.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Change to higher quality products.
2. Change to higher quality products, but need to justify your decision to those in authority.
3. Seek permission from those in authority for a change to higher quality products.
4. Decide not to seek permission from those in authority for the change to higher quality products as you are sure that it would be refused.

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(B)

You do not have enough staff to carry out the required pharmaceutical tasks, you have made every possible effort and used all known techniques to manage the workload with the existing staff and have reached a stage where you are certain additional staffing is required.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Engage the necessary additional staff to carry out the work.
2. Engage the necessary additional staff to carry out the work, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the necessary additional staff be engaged.
4. Decide not to seek permission from those in authority for the necessary additional staff to be engaged as you are sure that your request would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(C)

A person acting as carer to an elderly patient explains that the patient is confused about taking their medication and requests that you supply a monitored dosage system

You know the patient and consider that this would be the best option for this particular patient.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Supply the system.
2. Supply the system but need to justify your decision to those in authority.
3. Seek permission from those in authority to supply the system.
4. Decide not to seek permission from those in authority to supply the system as you are sure that it would be refused

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(D)

Although many of your prescriptions are written for issues of 30's you consider that calendar packs of 28 should be issued from now on, as you are convinced that this helps your patients take their medication properly.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Implement a policy of issuing 28's.
2. Implement a policy of issuing 28's, but need to justify your decision to those in authority
3. Seek permission from those in authority for introducing a policy of issuing 28's.
4. Decide not to seek permission from those in authority for introducing a policy of issuing 28's, as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(E)

You realise that you are too busy with prescriptions to spend even the minimum possible time counselling patients, however you do have two qualified dispensers. This being the case you decide to draw up a dispensary protocol in which the dispensers will carry out the dispensing function with regard to repeat prescriptions. This would enable you to leave the dispensary and provide the counselling and advice that your patients require.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Implement the dispensing protocol.
2. Implement the dispensing protocol, but need to justify your decision to those in authority.
3. Seek permission from those in authority that the dispensing protocol be implemented.
4. Decide not to seek permission from those in authority for implementing the dispensing protocol as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(F)

You are asked by a local residential home to provide an MDS (monitored dose system) for their patients. You currently dispense prescriptions for the home, and have come to the conclusion that the provision of an appropriate system would definitely benefit the patients

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Provide an appropriate MDS.
2. Provide an appropriate MDS, but need to justify your decision to those in authority.
3. Seek permission from those in authority that an appropriate MDS be provided.
4. Decide not to seek permission from those in authority for providing an appropriate MDS as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(G)

You are approached by a patient who informs you that they are having great difficulty in maintaining control of their asthma symptoms since their medication was changed from the branded to the generic form. The patient asks you to provide them with their medication in the original branded form. You know the patient and consider that they are describing a genuine situation, you also know that the prescriber is committed to generic prescribing and will not change their prescribing in this case to meet the increased cost of the drugs.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Supply the drugs in the branded form.
2. Supply the drugs in the branded form but, but need to justify your decision to those in authority.
3. Seek permission from those in authority to supply the drugs in branded form.
4. Decide not to seek permission from those in authority to supply the drugs in branded form as you are sure that it would be refused

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(H)

You are asked by a researcher to take part in a practice research project: The purpose of the research project has been explained to you and you support the research aims, which you consider are ethical, and would benefit the pharmacy profession. It would not cause very much disruption to the running of the pharmacy or extra work as the researcher would silently observe the dispensing activities and record events using a notebook. The researcher would need to be sited in, or adjacent to the dispensary.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Authorise the research to go ahead.
2. Authorise the research to go ahead, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the research to go ahead.
4. Decide not to seek permission from those in authority for the research to go ahead as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(I)

You are asked by the Health Authority to take part in a domiciliary visiting project, you have been fully briefed by the pharmaceutical adviser and are convinced that the project will deliver significant benefits to the patients. The Health Authority are providing sufficient funding for locum cover whilst the visits are made, and you know of a reliable locum who would undertake the task.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Agree to take part in the project.
2. Agree to take part in the project, but need to justify your decision to those in authority.
3. Seek permission from those in authority to take part in the project.
4. Decide not to seek permission from those in authority to take part in the project as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(J)

You are asked by the local GPs to help rationalise their prescribing, they are considerably over budget and would like to purchase your pharmaceutical expertise in order to bring the situation under control. Most of the prescriptions dispensed at the pharmacy come from the local GPs and you have a good idea of how to tackle the problem. After giving the matter considerable thought you decide you wish to take on the work of providing prescribing advice.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Agree to provide prescribing advice.
2. Agree to provide prescribing advice, but need to justify your decision to those in authority.
3. Seek permission from those in authority to provide prescribing advice.
4. Decide not to seek permission from those in authority to provide prescribing advice as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(K)

You are approached by a patient who informs you that he is an addict and has a prescription for Methadone to be dispensed . The patient asks if he can use the pharmacy for this purpose. You consider the use of Methadone to be appropriate for this patient.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Agree to provide the service.
2. Agree to provide the service, but need to justify your decision to those in authority.
3. Seek permission from those in authority to provide the service.
4. Decide not to seek permission from those in authority to provide the service as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(L)

You realise that some of your patients are not taking all of the medication they collect on repeat prescriptions. After giving the matter considerable thought you decide to become more actively involved in trying to minimise the waste that this involves and help them in the management of their medication. You design a protocol which ensures that patients with repeat prescriptions are asked about compliance and given the opportunity to indicate that they do not require a prescribed item. The item is then not dispensed and the prescriber is informed. After discussing the scheme with surgery, and receiving their approval you decide you would like to proceed and introduce the scheme.

Would you ?

1. Introduce the scheme.
2. Introduce the scheme, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the introduction of the scheme.
4. Decide not to seek permission from those in authority for the introduction of the scheme as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

Thank you for working through the scenarios, please now complete the questionnaire by responding to a few questions about yourself.

1 Do you work in community pharmacy?

Yes ☐

No ☐

2 Is your main employment in community pharmacy?

Yes ☐

No ☐

3 Do you work

Full time (*on average over 35 hours per week*)

☐

Part time (*on average less than 35 hours per week*)

☐

4 At present are you

Yes

A contractor pharmacist

☐

An employee pharmacist

☐

A locum pharmacist

☐

(please tick one box only)

5 If you are an employee, do you work for

- A multiple (over 50 branches) ☐
- A multiple (over 20 branches) ☐
- A medium group (over 5 branches) ☐
- A small group (2-5 branches) ☐
- An independent ☐

(please tick one box only)

6 Which of the following describes most closely where you work?

- A pharmacy sharing premises with a GP surgery ☐
- A pharmacy in a supermarket ☐
- A pharmacy in a town centre ☐
- A pharmacy in a suburban shopping location ☐
- A pharmacy situated in a rural location ☐

(please tick one box only)

7 In which year did you register with the RPSGB?

8 Are you

Female

☐

Male

☐

APPENDIX 4

The version of the questionnaire used for the main survey

Community Pharmacy Scenarios

Dear Colleague

This questionnaire has been designed to explore issues of autonomy in community pharmacy as part of a PhD project at Sheffield Hallam University. The Work has been funded by the Department of Health and has received support from the R.P.S.G.B.

As a practising community pharmacist myself I know the pressures on your time are immense but if you can complete the questionnaire, which should take less than 10 minutes, and return it to me in the post paid envelope for analysis you will be adding considerably to our understanding of how community pharmacists approach professional autonomy.

A better understanding of this area is very important to our future as primary care practitioners and I therefore urge you to return the completed questionnaire to me as soon as you can.

Thank you for your assistance with this project.

Peter Magirr MRPharmS

The first part of the questionnaire consists of a series of scenarios which relate to situations in community pharmacy. In each case consider the scenarios in the context of the pharmacy where you normally work, either as a contractor or an employed pharmacist. If you are a self employed Locum consider the scenarios with respect to the pharmacy in which you have undertaken your **most recent** locum engagement.

Each scenario depicts a situation which could arise in community pharmacy, in every case it is important that you **place yourself within the scenario** and respond by picking the option which most closely matches what **you would do** in the situation.

After you have made your choice you are asked to indicate whether you have experience of a situation similar to that depicted in the scenario, and to indicate how important you consider the issue raised in the scenario is in terms of professional autonomy.

Following on from the scenarios is a short section where you are asked for some details about yourself.

(A)

You have become concerned about the quality of the Parallel Imported drugs that you are dispensing, you have had misgivings for some time but have now come to the conclusion that they are not of acceptable quality.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Change to higher quality products.
2. Change to higher quality products, but need to justify your decision to those in authority.
3. Seek permission from those in authority for a change to higher quality products.
4. Decide not to seek permission from those in authority for the change to higher quality products as you are sure that it would be refused.

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(B)

You do not have enough staff to carry out the required pharmaceutical tasks, you have made every possible effort and used all known techniques to manage the workload with the existing staff and have reached a stage where you are certain additional staffing is required.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Engage the necessary additional staff to carry out the work.
2. Engage the necessary additional staff to carry out the work, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the necessary additional staff be engaged.
4. Decide not to seek permission from those in authority for the necessary additional staff to be engaged as you are sure that your request would be refused.

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(C)

A person acting as carer to an elderly patient explains that the patient is confused about taking their medication and requests that you supply a monitored dosage system

You know the patient and consider that this would be the best option for this particular patient.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Supply the system.
2. Supply the system but need to justify your decision to those in authority.
3. Seek permission from those in authority to supply the system.
4. Decide not to seek permission from those in authority to supply the system as you are sure that it would be refused

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(D)

Although many of your prescriptions are written for issues of 30's you consider that calendar packs of 28 should be issued from now on, as you are convinced that this helps your patients take their medication properly.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Implement a policy of issuing 28's.
2. Implement a policy of issuing 28's, but need to justify your decision to those in authority
3. Seek permission from those in authority for introducing a policy of issuing 28's.
4. Decide not to seek permission from those in authority for introducing a policy of issuing 28's, as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(E)

You realise that you are too busy with prescriptions to spend even the minimum possible time counselling patients, however you do have two qualified dispensers. This being the case you decide to draw up a dispensary protocol in which the dispensers will carry out the dispensing function with regard to repeat prescriptions. This would enable you to leave the dispensary and provide the counselling and advice that your patients require.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Implement the dispensing protocol.
2. Implement the dispensing protocol, but need to justify your decision to those in authority.
3. Seek permission from those in authority that the dispensing protocol be implemented.
4. Decide not to seek permission from those in authority for implementing the dispensing protocol as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(F)

You are asked by a local residential home to provide an MDS (monitored dose system) for their patients. You currently dispense prescriptions for the home, and have come to the conclusion that the provision of an appropriate system would definitely benefit the patients

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Provide an appropriate MDS.
2. Provide an appropriate MDS, but need to justify your decision to those in authority.
3. Seek permission from those in authority that an appropriate MDS be provided.
4. Decide not to seek permission from those in authority for providing an appropriate MDS as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(G)

You are approached by a patient who informs you that they are having great difficulty in maintaining control of their asthma symptoms since their medication was changed from the branded to the generic form. The patient asks you to provide them with their medication in the original branded form. You know the patient and consider that they are describing a genuine situation, you also know that the prescriber is committed to generic prescribing and will not change their prescribing in this case to meet the increased cost of the drugs.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Supply the drugs in the branded form.
2. Supply the drugs in the branded form but, but need to justify your decision to those in authority.
3. Seek permission from those in authority to supply the drugs in branded form.
4. Decide not to seek permission from those in authority to supply the drugs in branded form as you are sure that it would be refused

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(H)

You are asked by a researcher to take part in a practice research project: The purpose of the research project has been explained to you and you support the research aims, which you consider are ethical, and would benefit the pharmacy profession. It would not cause very much disruption to the running of the pharmacy or extra work as the researcher would silently observe the dispensing activities and record events using a notebook. The researcher would need to be sited in, or adjacent to the dispensary.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Authorise the research to go ahead.
2. Authorise the research to go ahead, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the research to go ahead.
4. Decide not to seek permission from those in authority for the research to go ahead as you are sure that it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(I)

You are asked by the Health Authority to take part in a domiciliary visiting project, you have been fully briefed by the pharmaceutical adviser and are convinced that the project will deliver significant benefits to the patients. The Health Authority are providing sufficient funding for locum cover whilst the visits are made, and you know of a reliable locum who would undertake the task.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Agree to take part in the project.
2. Agree to take part in the project, but need to justify your decision to those in authority.
3. Seek permission from those in authority to take part in the project.
4. Decide not to seek permission from those in authority to take part in the project as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(J)

You are asked by the local GPs to help rationalise their prescribing, they are considerably over budget and would like to purchase your pharmaceutical expertise in order to bring the situation under control. Most of the prescriptions dispensed at the pharmacy come from the local GPs and you have a good idea of how to tackle the problem. After giving the matter considerable thought you decide you wish to take on the work of providing prescribing advice.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Agree to provide prescribing advice.
2. Agree to provide prescribing advice, but need to justify your decision to those in authority.
3. Seek permission from those in authority to provide prescribing advice.
4. Decide not to seek permission from those in authority to provide prescribing advice as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

(K)

You are approached by a patient who informs you that he is an addict and has a prescription for Methadone to be dispensed . The patient asks if he can use the pharmacy for this purpose. You consider the use of Methadone to be appropriate for this patient.

Now, bearing in mind the circumstances in which you practise:

Would you ?

1. Agree to provide the service.
2. Agree to provide the service, but need to justify your decision to those in authority.
3. Seek permission from those in authority to provide the service.
4. Decide not to seek permission from those in authority to provide the service as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation? Yes ☐
No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very Low Importance	Low Importance	Medium Importance	High Importance	Very High Importance

(L)

You realise that some of your patients are not taking all of the medication they collect on repeat prescriptions. After giving the matter considerable thought you decide to become more actively involved in trying to minimise the waste that this involves and help them in the management of their medication. You design a protocol which ensures that patients with repeat prescriptions are asked about compliance and given the opportunity to indicate that they do not require a prescribed item. The item is then not dispensed and the prescriber is informed. After discussing the scheme with surgery, and receiving their approval you decide you would like to proceed and introduce the scheme.

Would you ?

1. Introduce the scheme.
2. Introduce the scheme, but need to justify your decision to those in authority.
3. Seek permission from those in authority for the introduction of the scheme.
4. Decide not to seek permission from those in authority for the introduction of the scheme as you are sure it would be refused.

☐

Insert the no. of the option which most closely matches what you would do.

Have you ever been involved in a similar situation?

Yes ☐

No ☐

Please rate the importance of the issue raised in the scenario in terms of significance for the exercise of professional autonomy

☐

Very Low
Importance

☐

Low
Importance

☐

Medium
Importance

☐

High
Importance

☐

Very High
Importance

Thank you for working through the scenarios, please now complete the questionnaire by responding to a few questions about yourself.

1 Do you work in community pharmacy?

Yes ☐

No ☐

2 Is your main employment in community pharmacy?

Yes ☐

No ☐

3 Do you work

Full time (*on average over 35 hours per week*) ☐

Part time (*on average less than 35 hours per week*) ☐

4 At present are you

Yes

A contractor pharmacist ☐

An employee pharmacist ☐

A locum pharmacist ☐

(please tick one box only)

5 If you are an employee, do you work for

- A multiple (over 50 branches) ☐
- A multiple (over 20 branches) ☐
- A medium group (over 5 branches) ☐
- A small group (2-5 branches) ☐
- An independent ☐

(please tick one box only)

6 Which of the following describes most closely where you work?

- A pharmacy sharing premises with a GP surgery ☐
- A pharmacy in a supermarket ☐
- A pharmacy in a town centre ☐
- A pharmacy in a suburban shopping location ☐
- A pharmacy situated in a rural location ☐

(please tick one box only)

7 In which year did you register with the RPSGB?

8 Are you

Female ☐

Male ☐

APPENDIX 5

The letter received from the Boots Company

PSO/JW/SEC

17 September 1999

Mr Peter Magirr
Survey and Statistical Research Centre
City Campus
Howard Street
Sheffield
S1 1WB

Pharmacy
Superintendent's Office
D90 East F08
Nottingham NG90 1BS

Tel: 0115 959 2824
Fax: 0115 959 2988

Dear Mr Magirr

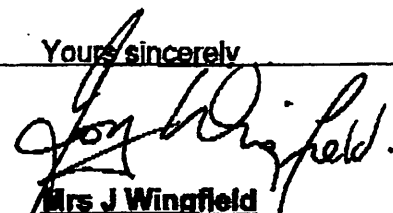
Autonomy in Community Pharmacy

I have been sent a copy of your questionnaire on the above topic, dated August 1999. There is no indication of who has sent this to me: perhaps one of our branches or perhaps direct from yourself?

This topic is of considerable interest in my field of pharmacy law and ethics as, indeed, is that of patient autonomy. I am however concerned that issues concerning corporate governance and liability, responsibility of the Pharmacy Superintendent, operational efficiency and financial viability must be taken into account in most of the scenarios you describe. If the survey has already been sent to one of our pharmacies, I would also be concerned that this office was not aware of this approach and thus not in a position to respond to queries from our pharmacists.

I believe it would be helpful if we could discuss these matters, since, if asked, I would not be supportive of completion of your questionnaire as it stands. Perhaps you would let me know if you would wish to respond to our concerns in this way.

Yours sincerely


Mrs J Wingfield
Assistant Pharmacy Superintendent

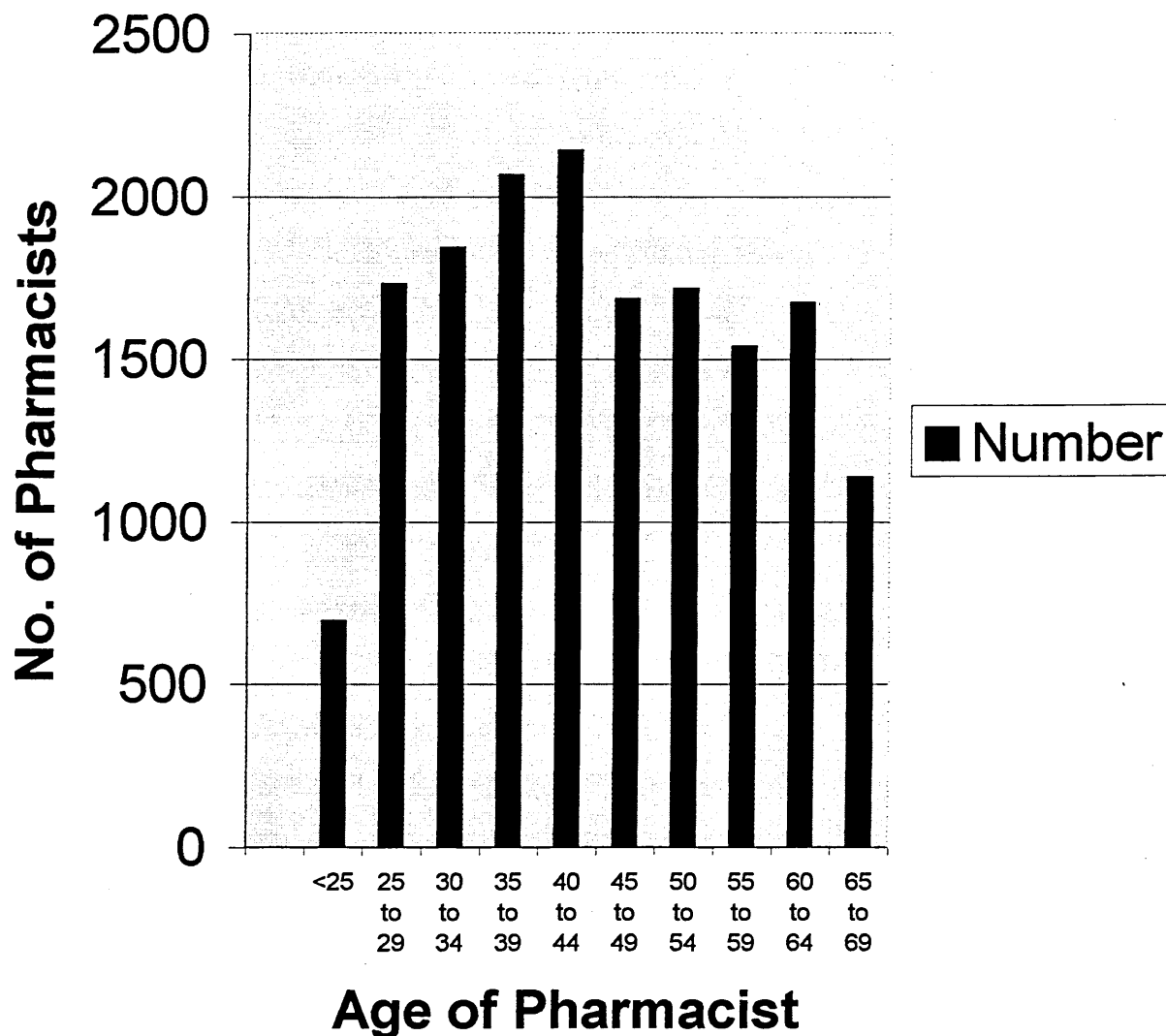
APPENDIX 6

Data supplied by the Royal Pharmaceutical Society of Great Britain

Table 1 - Membership by sex and age (true totals)

Age (years)	Male			Female			Total		
	1994	1995	1996	1994	1995	1996	1994	1995	1996
< 25	657	625	698	1317	1252	1279	1974	1877	1975
25 to 29	1751	1734	1732	3070	3143	3200	4821	4877	4932
30 to 34	1887	1827	1842	2882	3086	3151	4769	4913	4993
35 to 39	2245	2139	2067	2428	2486	2611	4673	4625	4678
40 to 44	1796	1990	2140	1817	2225	2321	3613	4215	4461
45 to 49	1720	1760	1684	1219	1360	1444	2939	3120	3128
50 to 54	1548	1665	1716	923	1027	1106	2471	2692	2822
55 to 59	1790	1551	1538	968	890	885	2758	2441	2423
60 to 64	1426	1609	1672	627	719	798	2053	2328	2470
65 to 69	829	1017	1137	430	486	495	1259	1503	1632
> 69	2779	2591	2566	548	618	678	3327	3209	3244
Total	18428	18508	18790	16229	17292	17968	34657	35800	36758

Age Profile of Pharmacists - 1996 Data from RPSGB



This histogram has been produced from the data sent by the Royal Pharmaceutical Society of Great Britain: Membership by sex and age (true totals). Enclosed as Table 1.

The histogram may be compared with that produced for the respondents, which is shown as Figure 5.1 on page 105 of the thesis.