MANAGERIALISM and PROFESSIONALISM AMONG HOSPITAL PHARMACISTS

BY

MICHAEL BARNWELL

A Master's Thesis

Submitted in partial fulfilment of the requirements

for the award of

the degree of Master of Philosophy of the

Loughborough University of Technology

1981

Supervisor: Professor A. B. CHERNS

Department of Social Sciences

ACKNOWLEDGEMENTS

The writer wishes to record his appreciation and thanks to the following:-

1. To Professor A. B. Cherns for his patient help and guidance throughout the period of the investigation.
2. Mr. F. A. Mee, Head of the School of Management, Leicester Polytechnic, for his support.
3. Dr. J. R. Knibbs, Reader in the School of Management, Leicester Polytechnic, for his advice at various stages of the research.
4. The many pharmacists within the Trent RHA who gave of their time and efforts during the data collection stages and its subsequent analysis.
5. Colleagues in the School of Pharmacy, Leicester Polytechnic, for their assistance and advice.
6. Lastly, but most importantly, to my wife Gwynneth. Not only for her help and encouragement at all times but also for the very excellent way in which she has typed this thesis.

To all the above I extend my sincere and grateful thanks.

MICHAEL BARNWELL
1981

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ABBREVIATIONS USED

AHA	Area Health Authority
APhO	Area Pharmaceutical Officer
DFO	District Finance Officer
DHA	District Health Authority
DHSS	Department of Health and Social Security
DPhO	District Pharmaceutical Officer
GP	General Practitioner (Medicine)
NHS	National Health Service
OPD	Outpatients Department
Ph	Pharmacist
PIA	Professional Inventory Analysis
Pre-Reg Stu	Pre-Registration Student
Principal	Principal Pharmacist
PVQ	Personal Values Questionnaire
QC	Quality Control

SYNOPSIS

The thesis examines the professional and managerial attitudes and values of members of an emerging profession. The focus of the research is on pharmacists in the Health Service who have undergone significant changes in their managerial responsibilities over the past decade.

The concepts of professionalism and managerialism are examined and hypotheses generated concerning the inter-relationship of these concepts and how pharmacists, as members of an emerging profession, develop professional and managerial values and attitudes.

Empirical research was carried out into the attitudes and values of pharmacists in the Health Service. Analysis of the data from the research points to conclusions concerning the inter-relationships of professional and managerial values and attitudes in an emerging profession.

CHAPTER 1

THE PROBLEM, THESIS OUTLINE AND HYPOTHESES

The Problem

The hospital pharmaceutical service was first established in a unified way, subsequent to the creation of the National Health Service on the 1st July 1948, by the NATIONAL HEALTH SERVICE ACT 1948. Over the next two decades developments of various types took place but the most significant developments affecting the pharmaceutical service have occurred in the 1970's. Two specific events are responsbile for this. First, the publication of the NOEL HALL Report in 1970 and the subsequent implementation of its' proposals. Secondly, the re-organisation of the National Health Service on the 1st April 1974 consequent upon the NATIONAL HEALTH SERVICE (RE-ORGANISATION) ACT 1973. These two events have given rise to radical changes in the way the hospital pharmaceutical service is organised and managed. In summary, the changes are in terms of:

(a) the way the service is organised;

(b) the size of the basic unit;

(c) the changed status, responsibilities and managerial functions of pharmacists in senior positions;

(d) the career structure planned and adopted.

These changes have resulted in problems for those pharmacists who occupy the more senior positions in the service. Chapter 3 describes the organisation of the pharmaceutical service, both pre- and post- NOEL HALL, and the changes that have occurred. In essence the changes are:

(a) A major emphasis has been placed by Central Government (and in their turn by Regional and Area Health Authorities) on the management of the service. Senior pharmacy managers are required to give a higher priority to the management areas of their job compared with the professional demands. This can be illustrated by reference to the Central Government Publication, "MANAGEMENT ARRANGEMENTS FOR THE REORGANISED NHS" commonly known as "The Grey Book". Alternatively Appendix B, of HEALTH REORGANISATION CIRCULAR (1973)28 on the Organisation of pharmaceutical services, gives an outline job description for an Area Pharmaceutical Officer. Within it the Job Summary commences "The Area Pharmaceutical Officer will be responsible for the management* of pharmaceutical services ..... " and the first item under Duties and Responsibilities reads "To manage* pharmaceutical services at ..... ".

(b) A hierarchical management structure has been introduced with a longer chain of command.

(c) Pharmaceutical units have increased in size both geographically and in terms of the numbers of staff managed increasing the management responsibilities of the senior managers.

(d) More emphasis is now placed on staff development and management training in particular.

(e) The pharmaceutical service has been caught up in pressures to improve the effectiveness and efficiency of the health service.

The increasing emphasis on management activities means

* Author's underlining

senior pharmacy managers have to balance the managerial aspects of their decision making against their professional views. This can lead to conflicts between their values and attitudes as managers and as members of an emerging or semi-profession.

As an emerging or semi-profession pharmacists continue to strive to increase their professionalism. This process has been going on for a very long time and a recent illustration of the continuation of this process is the introduction of graduate entry only as from the beginning of the Academic Year 1968/69.

From the foregoing it follows two simultaneous trends are occurring affecting senior pharmacy managers in the hospital pharmaceutical service. The first trend is towards increasing managerialism and the second a continuation of the move towards increased professionalism. Detailed arguments in support of these statements can be found in later chapters of this thesis. At the senior pharmacy manager level these trends converge. The inter-relationship of managerialism and professionalism is the major concern of this thesis together with the development of professional and managerial values and attitudes. Senior pharmacy managers are defined as those occupying the grades of Area Pharmaceutical Officer, District Pharmaceutical Officer or Principal Pharmacist.

Two grades of professionally qualified pharmacists exist below the senior pharmacy managers as defined above. These

are Staff Pharmacists and Basic Grade Pharmacists. Neither grade has major management responsibilities but is included within this research as it is from their ranks that senior pharmacy managers are promoted. Likewise, students who have recently obtained their pharmacy degree, and who are undertaking their statutory pre-registration year, are included.

The final group of staff with whom we may be concerned are the technicians. There are two grades, Senior Pharmacy Technician and Pharmacy Technician. These staff undertake a great deal of the routine work. eg, Unpacking and storage of bulk supplies, replenishment of standard ward issues, manufacture of drugs under supervision. Their work is always supervised by qualified pharmacists, usually in the Staff Pharmacist grade. Whilst the technicians will get involved with their managers in conflicts over work allocation, personality issues etc., as part of their day-to-day management, it would be very exceptional for them to be involved in the type of conflict that is the subject of this research. This is because of the limitations of the type of routine work they undertake and the place in which they carry it out. They have therefore been excluded from this research.

Thesis Outline

To investigate the above an examination of the historical and social setting will first be carried out. The changes brought about as a result of the NOEL HALL Report and the Re-organisation of the Health Service will be described and then a review of the literature pertaining to professionalism

and managerialism undertaken. Two possible research instruments [HALL's scale and ENGLAND's work] will be described and discussed. The collection of data relevant to the research through a Pilot Study and a Main Survey will be followed by an analysis and discussion of the results. Finally, the findings of the research will be given together with a summary and conclusion.

Hypotheses

The following hypotheses will be examined in this thesis:

1. Hospital pharmacists who hold both managerial and professional responsibilities will tend to be drawn into situations of conflict between their attitudes and values as managers and as professionals.
2. The conflicts referred to in hypothesis 1 above will be intensified as a result of the implementation of the NOEL HALL Report and the Re-organisation of the Health Service.
3. Senior pharmacy managers [APhO's, DPhO's and Principal Pharmacists] reduce their professional attitudes and values as a way of coping with conflict.
4. Senior pharmacy managers will have pragmatic orientations and will hold as important values such as high productivity, organisational stability, pharmacy efficiency and service maximization.
5. Pharmacists occupying the senior management grades will be more managerially orientated than those occupying the more junior grades.

CHAPTER 2.

THE HISTORICAL AND SOCIAL SETTING

JOHNSON [1972] states "The sociology of the professions received much of its initial impetus from two fundamental questions. The first concerned the extent to which professional occupations could be regarded as a unique product of the division of labour in society. The second question posed the problem: do the professions perform a special role in industrial society, economic, political or social?" Commenting on the second question he states: "As sociologists set about analysing the part which the professions play in the various spheres of social life - in the economy or political system, as innovators or experts - they have tended to narrow down the original problem in order to handle it or as a reflex to demands for answers to specific social problems. They have split up the large question into smaller and more manageable components, dealing with such fashionable questions of the time as: what are the consequences of the growth of bureaucratic scientific organisations for the 'creative' role of the professional scientist; or, more pragmatically, can we expect the scientist-bureaucrat to deliver the goods?"

Arguments in line with this statement can be found in KORNHAUSER [1962], COTGROVE and BOX [1970] and HIRSCH [1968]. Pharmacists, as scientists, find themselves faced with the consequences of the growth of bureaucracy. This study is concerned with this aspect and asks the question:

What are the consequences of the simultaneous trends towards bureaucracy and professionalism, for senior hospital pharmacists, where the two trends converge?

To understand this question fully it is necessary to trace the development of the profession of pharmacy and set it in the broader context of the professions' historical development. This chapter seeks to provide such a setting.

The Historical Development of Pharmacy

KREMERS AND URDANG consider the development of pharmacy in Britain to be a peculiar one. Peculiar in the sense of its being different from that in other large cultural zones such as the Italian, the French and the German. The development of pharmacy in Britain can be seen as an evolutionary process in which "a profession based entirely on the art of pharmacy, with the purpose of developing the professional and social standards of its members, did not exist in England, Wales and Ireland before the 19th Century and in Scotland before the 18th Century."

POYNTER considers that the early history of pharmacy is obscure but it probably started in the twelfth or thirteenth century. At this time there were no essential differences among the functions of physicion, apothecary and surgeon. Practitioners known as leeches performed all three and the trade in drugs and spices was handled by mercers [merchants in small wares including spicers and pepperers]. As time went by some of the spicers who were more knowledge-

able and skilful specialized increasingly in the dispensing and compounding of medicines. So much so that by the late 13th Century some were being called spicer or apothecary interchangeably. Whilst this was happening the pepperers (wholesalers and shippers of spicery, etc.) became known as the Grocers Company. Still without legal regulation it was not surprising that the functions of medicine and pharmacy remained poorly separated.

The first regulations for the practice of medicine and pharmacy were issued by King Henry VIII in 1511 introducing examination, approval and admittance. Seven years later the Royal College of Physicians of London was founded and in 1540 was empowered to "search, view and see the apothecary wares, drugs and stuffs." Further legal measures in later years tended to make the practice of medicine the monopoly of physicians licensed as such. The next significant event was the forming of the Society of Apothecaries in 1607 granting them independence. From its founding the Society grew in status, finances and influence. It found itself in a fight against the physicians and the "druggists" and "chemists". The fight was a long one lasting over a century. The outcome was that the apothecaries became recognized as medico-pharmaceutical practitioners and eventually became the general practitioners of today. In relation to the druggists and chemists the apothecaries did not do so well "and failed to get powers to search chemists shops ....., prohibit druggists from practising pharmacy and to make it unlawful for physicians and surgeons to prepare and sell medicines." (PHARMACEUTICAL JOURNAL 116: 457, 1926)

The APOTHECARIES ACT of 1815 forbade unqualified persons to judge disease by external indications and further strengthened their role as general medical practitioners. With the apothecaries focus of attention on the medical aspects of their work the chemists and the druggists claimed an increasing share of the pharmaceutical work. Eventually it became custom and practice for them to render the pharmaceutical service and in 1841 The Pharmaceutical Society of Great Britain was formed.

The Pharmaceutical Society was founded "to benefit the public and elevate the profession of pharmacy, by furnishing the means of proper instruction." (BELL AND REDWOOD)

Jacob Bell, one of the founders of the Society, voiced the idea in 1842 that pharmacy had become so complicated and had embraced so many sciences "that a complete knowledge of the subject can only be acquired by those who devote their exclusive attantion to the pursuit."

KREMERS and URDANG state "The Pharmaceutical Society continued on a road diverging from that of the apothecaries, moving slowly but continuously toward professional status for a new class of practitioners of pharmacy."

A Charter was granted to the Society in 1843 which empowered the Society to regulate the education and admission of members. The specified objectives were:-

1. Advancement of chemistry and pharmacy;
2. Promotion of a uniform system of education for practitioners;

3. Protection of "those who carry on the business of Chemist Druggist";

4. Relief of needy members, associates and their widows and orphans.

The PHARMACY ACT 1852 empowered the Society to conduct examinations and to grant certificates of qualification for "pharmaceutical chemists". This title was restricted legally to those so registered. This meant that medical men in practice could not be registered as pharmaceutical chemists although they could dispense. A further PHARMACY ACT in 1868 made qualification and registration compulsory for all members of the profession and the sale of poisons was only permitted in pharmacies serving the general public.

Further legislation in 1898 brought the Chemist and Druggist within the ambit of the Society. The PHARMACY ACT of 1933 was a major stage in the move of pharmacists towards full professionalism. It made membership of the Society compulsory for those registered and practising as pharmacists. The titles "pharmaceutical chemist", "pharmacist", "chemist and druggist", and "druggist" became protected.

This Act was recognised as a milestone by the pharmacists and in an Editorial in the PHARMACEUTICAL JOURNAL (130: 549 1933) it was stated:-

"Pharmacy is recognized as a self-governing community, free to conduct its own affairs and subjected to governmental control only in those matters where its activities affect the public."

Other legislation (eg. 1941 and 1953 Acts etc.) continued to mould the form of the Society and a Supplemental Charter was granted to the Society in 1954. This amended the objectives of the Society to read:

1. To advance chemistry and pharmacy;
2. To promote pharmaceutical education and the application of pharmaceutical knowledge;
3. To maintain the honour and safeguard and promote the interests of the members in the exercise of the profession of pharmacy;
4. To provide relief for distressed persons.

From its earliest times the Pharmaceutical Society was concerned to form a class of uniformly and sufficiently educated pharmaceutical practitioners on whom it could confer the legal right to supply people with drugs and medicines.

KREMERS and URDANG usefully make a key point when they state:

'Because of the central importance of education as a tool for shaping a new profession out of the original heterogeneous group of "chemists" and "druggists", the Society consistently has fostered and valued the role of education in the life of British pharmacy. The Society's commendable history in this area, says FAIRBAIRN "rises up from the past like a signpost pointing out that the only way to maintain and improve professional status in an increasingly scientific society is by continually increasing academic standards". FAIRBAIRN recalls that the two levels of qualification

characteristic of British pharmacy go back as far as the founding generation of the Society:

'Originally they envisaged a society of registered pharmaceutical chemists and registered assistants, but by 1869 the Assistants' examination [Chemist and Druggist Diploma] became the basic one for membership while the Pharmaceutical Chemist Examination became an extra qualification which carried with it higher status. Those with the Pharmaceutical Chemist Diploma [Ph.C.] tended to enter the manufacturing, teaching, or hospital branches of pharmacy whereas those with the Chemist and Druggist Diploma remained in retail practice. This two-class system of pharmaceutical education persisted for almost a hundred years, and, although the Pharmaceutical Society in 1954 abolished the old chemist and druggist course, the idea of an ordinary and a more advanced pharmacist still persists.'

Since then a number of changes have taken place and since 1970 it has only been possible to register as a pharmacist consequent upon the obtaining of an approved degree. This is in keeping with the Pharmaceutical Society of Great Britains' objectives in the educational field and the promotion of the professional* pharmacist.

* Author's underlining.

CHAPTER 3.

THE ORGANISATION OF THE HOSPITAL PHARMACEUTICAL SERVICE

In order to understand the significance and types of changes that have occurred in the hospital pharmaceutical service it is necessary to understand its present organisation and the immediate organisation out of which it grew. A convenient starting point is the NOEL HALL Report of 1970. A Working Party, under the chairmanship of Sir Noel HALL, was appointed in April 1968 with the following Terms of Reference: "to advise on the efficient and economical organisation of the hospital pharmaceutical service with particular reference to:

1. the most suitable unit(s) of organisation for the whole or parts of the service;
2. the best use of pharmacists, including the need and facilities for their post-graduate training;
3. the best use of supporting staff (including their recruitment and training);
4. a suitable career structure for pharmacists and supporting staff."

It is clear from the above Terms of Reference that the organisation of the hospital pharmaceutical service was to be a major concern. The Working Party reported in February 1970 to the Secretary of State for Social Services.

In the Preface to the Report the Working Party state:-

"The report reflects our conviction that this service as at present organised, staffed and accommodated is inadequate

to meet the requirements of the Hospital Service as they are developing. Our recommendations aim to give the hospital pharmaceutical service a new structure, so that it can properly utilise its resources and obtain full benefit from the appeal which it should hold for pharmacists and their supporting staff.

"Although we are not in a position to predict accurately the extent of future developments in the use of drugs, far-reaching changes can be expected. If future demands are to be satisfied there must therefore be active and informed management at all levels in the hospital pharmaceutical service, and close co-operation between the doctors, nurses, pharmacists and administrators concerned with drug-use in hospitals."

It is clear from this that "a new structure was needed and informed management" was required.

EXISTING ORGANISATION

Chapter 4 of the NOEL HALL Report, and Part 1 in particular, describes the existing position prior to re-organisation. In general the basis of organisation was the hospital. "in the main the hospital pharmaceutical service has failed to break free from a tradition in which each hospital of any size supported its own independent pharmacy." ..... "This involves much duplication and inefficiency."

The FIRST LINSTEAD (1955) Report had "recommended that the organisation of hospital pharmaceutical services should be on a Group basis but less than half the service today is

organised in this way. "This was inspite of circulars HM (55)22 and HM(59)43 being issued by the Ministry of Health. (ie. Hospital Memorandum 1955 No.22, and Hospital Memorandum 1959 No.43) which clearly defined the chief functions of a hospital pharmaceutical department.

"Even where Group appointments have been made they have not always carried with them the authority necessary to introduce improved and more economical methods"

"In their evidence the Manchester Regional Hospital Board said that "This Board has gone a long way towards implementing (Group organisation) ... Even so, where a group pharmacist has been appointed he is not always given the executive authority he needs to do his job. In many cases he acts only in an advisory capacity and he has no real authority over the pharmaceutical staff apart from those who work in the hospital in which he is chief pharmacist."
and finally:

"Our evidence and observations confirmed that sharing of services by more than one hospital Group was rare" ...

Thus the picture that emerges is one of a pharmaceutical service largely organised on an individual hosptial basis, with little sharing of services or optimum use of resources and senior staff limited in their managerial powers. This latter point is further developed by NOEL HALL, Chapter 4 paragraph 4.7:-

"As it happens the present organisation is such that there are not a sufficient number of posts carrying high level responsibilities to which younger pharmacists can

aspire and which are necessary if the right relationship between pharmacists and the medical and nursing services are to be established and developed. The cumulative results are inadequate career prospects, faltering recruitment, high wastage among the younger pharmacists, and inadequate presentation of the views of pharmacists at the levels of management and formation where it is increasingly required."

and finally .....

"The Working Party understands that there is uncertainty about the pharmacist's position in the management structure of the hospital and no clearly defined practice by which the Group, or Chief, Pharmacist has access to the chief officers of his authority or to the Management Committee or Board. Sometimes he may report to the Chief Administrative Officer of the hospital, or of the Group, or of both if he is Chief Pharmacist in a hospital and Group Pharmacist; at others he may report directly or indirectly to the Medical Superintendent. Where uncertainty of this nature exists, it is difficult for the Chief Pharmacist to play an effective part on committees dealing with drug expenditure or other matters affecting the pharmaceutical services."

To complete the picture the following grades of staff were in use as at 1st January 1970:

Chief Pharmacist (Grades I - V)

Deputy Chief Pharmacist (Category IV & V hospitals only)

Senior Pharmacist

Basic Grade Pharmacist

Post Graduate Student

PROPOSED ORGANISATION

The proposed organisation for the hospital pharmaceutical service was set out in Part II of Chapter 4 and Summarised under paragraphs 1 - 6 of the Summary of Principal Recommendations. The key features relevant to this study are:

1. "Hospital pharmaceutical services should be organised on a scale large enough to ensure that pharmacists are fully occupied on duties requiring their professional and managerial ability: to provide scope for the optimum use of technicians and other supporting staff; and to create the conditions needed for a satisfactory career structure.

2. The unit of organisation for pharmaceutical services should be the Area Pharmaceutical Service providing all the basic pharmaceutical services for an area which would almost always be larger than that of a single Hospital Management Committee, Board of Management, or Board of Governors. It should normally include some 4,000 - 6,000 beds of all types.

3. For reasons of geography and communication some smaller Pharmaceutical Areas may be required, but no Area should be so small as not to provide adequate work for a team of at least eight pharmacists, with their supporting staff. In these circumstances the number of beds of all types in such an Area might be as low as 2,500.

4. The Regional Hospital Boards should draw up plans for the re-organisation of pharmaceutical services on an area basis. To be effective any survey must include teaching hospitals. Regional Boards should determine which of their

hospitals should be served by each Area Pharmaceutical Service in the region, and agree with Boards of Governors on how teaching hospitals may provide, or be included in, Area Pharmaceutical Services.

5. The early appointment of a Regional Pharmacist is highly desirable to assist Regional Hospital Boards to undertake the responsibilities envisaged.

6. The executive structure adopted for each Area Pharmaceutical Service should be a matter for determination by the Regional Board in the light of local circumstances, but it should be such that the Area Pharmacist is in a position to plan and run all pharmaceutical services in the Area and to arrange staffing on an Area basis."

Paragraphs 7 and 12 of this summary are also relevant and are as follows:-

7. "The pharmacist should be fully employed on duties appropriate to his professional training. These are primarily the management of his Area, section, or activity, the laying down of safe systems of work, the proper exercise of his advisory role some research and the development of and participation in systems which enable the pharmacist to co-operate with doctors, nurses and administrators in securing the safe, efficient and economical use of drugs.

12. Training courses to keep pharmacists abreast of developments in their own field, should be encouraged and developed. Courses to qualify pharmacists to undertake the managerial and supervisory duties authorised in the report should be

provided as a matter of urgency where they are not already available."

Finally recognition of managerial responsibilities is discussed in paragraph 6.16:-

"The pharmacists in charge of Area Services and sections will be co-operating with senior members of their authorities in the planning and operation of a complex service. We consider that pharmacists must share fully in training for supervisory and managerial responsibilities."

The picture of the organisation which emerges from these recommendations is one of a larger, area based service with clearer lines of responsibility and communication.

IMPLEMENTATION OF PROPOSALS

The proposals of the NOEL HALL Report were accepted by the Department of Health and Social Security in 1970 and recommended to Health Authorities in HM(71)75. The implementation of the proposals and new organisation was carried out over the next few years on a gradual basis and given further impetus by the Re-organisation of the Health Service on the 1st April 1974 as a result of the National Health Service (Re-organisation) Act 1973.

Health Circular HRC(73)28 introduced a new series of grades in 1974 and these are now as follows:

Regional Pharmaceutical Officer

Area Pharmaceutical Officer *

District Pharmaceutical Officer

Principal Pharmacist

Staff Pharmacist

Basic Grade Pharmacist

Pre-Registration Student

* Area Pharmacists manage smaller "NOEL HALL Areas". There are few appointments of this type.

DIFFERENCES IN ORGANISATION

Table 1, on the following page, illustrates the major differences between the old and new organisations.

Table 1.

ORGANISATIONAL DIFFERENCES

PRE- AND POST- NOEL HALL

Feature	Pre Noel Hall	Post Noel Hall
Basic Unit	Individual hospital	Large area
Authority and Responsibility	Not clear in practice	Clear Hierarchy of control established
Collaboration and Liason with Doctors, Nurses, Administrators and Para-medical staff	Unclear in non-clinical areas	Positive attempt to ensure co-operation and teamwork
Voice and power of pharmacist in decision making at highest levels	No power at the highest levels of decision making. Influence through Advisory Committees	Regional and Area Pharmaceutical Officers have power and act as voice of profession at highest levels
Effectiveness and Efficiency	Left to local initiative. Lack of co-ordination between hospitals and Groups	Clear feature of Noel Hall proposals under constant review
Relationship with other Health Components	Largely isolated department except in relation to Doctors and Nurses	More closely identified as a member of Health Team

CHAPTER 4.

PROFESSIONALISATION AND PROFESSIONALISM - A REVIEW OF THE PERTINENT LITERATURE

One of the problems facing those who wish to study professions and professionalism is that of semantics. Review of the literature shows use of such terms in different ways by different authors. VOLLMER and MILLS [1966] provide a definition of the terms professionalization, professionalism, professionals, professional groups and professions. On page vii and viii of their introduction they state:
"We suggest, therefore, that the concept of "profession" be applied only to an abstract model of occupational organization, and that the concept of "professionalization" be used to refer to the dynamic process whereby many occupations can be observed to change certain crucial characteristics in the direction of a "profession," even though some of these may not move very far in this direction. It follows that these crucial characteristics constitute specifiable criteria of professionalization.

"What we have called the process of professionalization here has been frequently referred to as "professionalism," and you will see it so labelled in several of the readings in this book. However, we have similarly been led to the conclusion that it is useful to distinguish between "professionalization" and "professionalism." We would prefer to use "professionalism" to refer to an ideology and associated activities that can be found in many and diverse occupational groups where members aspire to professional status. Profes-

sionalism as an ideology may induce members of many occupational groups to strive to become professional, but at the same time we can see that many occupational groups that express the ideology of professionalism in reality may not be very advanced in regard to professionalization. Professionalism may be a necessary constituent of professionalization, but professionalism is not a sufficient cause for the entire professionalization process.

"Finally, we suggest that "professional groups" be used to refer to associations of colleagues in an occupational context where we observe that a relatively high degree of professionalization has taken place. "Professionals," then, are those who are considered by their colleagues to be members of professional groups."

From the above statement professionalization is viewed as a process with an end-state towards which certain occupations are moving and others have arrived. The end-state being the possession of certain crucial characteristics. The definition of what a profession is, is becoming a matter of pinpointing what these "crucial characteristics" are. There are many such models in the literature. Indeed GOODE [1960] concludes from a review of the literature that "If one extracts from the most commonly cited definitions all the items which characterise a profession ..... a commendable unanimity is disclosed; there are no contradictions and the only differences are those of omission." This view is not shared by all and MILLERSON [1964] asserts " Of the

dozens of writers on this subject few seem able to agree on the real determinants of professional status."

The considerations of the concepts so far seem to imply three areas of concern: one is concerned with problems of semantic definition, a second with problems of deriving the fundamental characteristics of a profession and the third with the dynamics of the process of professionalism. Many writers have addressed themselves to these areas and often quoted examples are the works of CARR-SAUNDERS and WILSON [1933], MILLERSON [1964], ETZIONI [1969], JACKSON [1970] and WILENSKY [1964].

JOHNSON [1972] reviews such approaches and suggests that the various approaches can be divided into two broad types, "namely the 'trait' and 'functionalist' models of the professions".

Trait Model

He illustrates the 'trait' model from the work of MILLERSON [1964] who after a careful canvass of sociological literature listed twenty-three elements which have been included in various definitions of 'profession'. The most frequently mentioned traits being:

[1] Skill based on theoretical knowledge;

[2] The provision of training and education;

[3] Testing the competence of members;

[4] Organisation;

[5] Adherence to a professional code of conduct;

[6] Altruistic service.

JOHNSON's view however, is that the 'trait' approach is "inadequate in a number of ways." Firstly such a model assumes as a starting point that there are, or have been in the past "true" professions which exhibit to some degree all of the essential elements. Thus an "ideal type" is abstracted from the known characteristics of these existing occupations - medicine, law and the church being taken as the "classical cases". However, it can be argued that professions are slipping from the "ideal type". LEWIS and MAUDE [1952] illustrate this point in relation to professions in general and pharmacists in particular. They stress "independent practice is an essential element of professionalism" and see a loss of independence in post Second World War British society. Increasing industrial and governmental bureaucracy is said to account for this along with other social changes. LEWIS and MAUDE's work being published in 1952 could take account of the changes brought about as a result of the NATIONAL HEALTH SERVICE ACT, 1948. A move towards increasing bureaucratic control took place swiftly. In 1949, for instance, the Ministry of Health imposed reductions in profit margins on NHS prescriptions in relation to retail pharmacists. "The 1949 cut brought home to the pharmacists the vulnerability of their new position, in which the state was their largest single customer. In addition, they suffered considerable hardships from the bureaucratic delays in payments made for NHS prescriptions."

Although LEWIS and MAUDE do not illustrate their point in relation to hospital pharmacists their arguments can be

carried forward to this area. Thus the increasing bureaucratisation of hospital pharmacists, and thus some loss of independence, can be seen to result from the NOEL HALL proposals described in Chapter 3. Thus the "ideal" becomes what it ought to be rather than what it is. Bureaucracy has led to a dilution of the degree of professionalism within the organisational setting of the National Health Service.

Secondly the bias of the analysts seems to alter the situation too. MILLERSON [1964] draws this conclusion from his survey of the literature: "... authors begin as historians, accountants, lawyers, engineers, philosophers, sociologists, etc. As a result group affiliations and roles determine the choice of item and bias. Usually the measures are presented with their own occupations in mind." Thus, according to JOHNSON, the 'trait' theory, because of its atheoretical character, too easily falls into the error of accepting the professionals' own definitions of themselves."

It can also be observed that there are many similarities between the "core elements" as perceived by sociologists and the preambles to, and contents of, professional codes. Professional rhetoric relating to community service and altruism may be in many cases a significant factor in moulding the practices of individual professionals, but it also clearly functions as a legitimation of professional privilege. Professionals exist in a community and GOODE [1975] points out there is a necessary relationship between

the existence of a developed professional community based on shared identity, values, role definitions, etc., and the acceptance of professional authority by laymen. Recent history has shown changes in this relationship between professionals and laymen. Technological change, continuous differentiation within existing professions, [see BUCHER and STRAUSS (1961) for a discussion of this aspect], changing client demands, the growth of new sources of external authority are all challenging the professional community. Thus changes are occurring over time which is not usually taken account of by the 'trait' approach.

HICKSON and THOMAS (1969) attempted to go beyond mere catalogues of "elements" or "characteristics". Theirs was an attempt to operationalise the attributes which characterise the ideal-type profession in order to provide a number of measurable indicators of the process of professionalisation. Thus they attempted to establish an hierarchy of professions in Britain by feeding measurable indicators of 'professionalism' into a GUTTMAN cumulative scale. In spite of the limitations of their work it led to a conclusion that professionalisation is a "long-drawn-out process." Thus there may be a "natural history of professionalism" as expressed by CAPLOW (1954) and WILENSKY (1964).

The 'trait' approach to theorising about professionalization ignores variations in the historical conditions under which occupational activities develop. JOHNSON comments: "We may conclude that one of the underlying assumptions of

the approach is that it is the inherent qualities of an occupational activity which autonomously determine the way in which institutional forms of control will develop - neglecting any reference to the effects of such factors as the prior existence of powerfuland entrenched occupational groups, or the extent to which governments or academic institutions may impose their own definitions on the organisation of the occupation and the content of practice. Neither is there any systematic discussion of the fact that variations in the character of an existing or potential clientele are crucial in affecting the forms of development which are possible." Thus in recent years there has been a rejection of straight 'trait' theory and definitional exercises as fruitless and misguided activities. The Editors' Introduction to VOLLMER and MILLS [1966] starts with a quotation from EVERETT HUGHES "in my own studies I passed from the false question "Is this occupation a profession?" to the more fundamental one, "What are the circumstances in which people in an occupation attempt to turn it into a profession, and themselves into professional people?"

Following this line of argument may enable us to focus on two phenomena of our times: group mobility through occupational upgrading and the expansion of professionalism as a result of the growth of occupational group-consciousness.

Functional Model

To illustrate the functionalist school JOHNSON quotes the work of BARBER [1963] and TALCOTT PARSONS [1968]. BARBER claims "sociological definition of the professions should

limit itself, so far as possoble, to the differentia specifica of professional behaviour." He claims professional behaviour may be defined in terms of 'four essential attributes':

1. A high degree of generalised and systematic knowledge;
2. Primary orientation to the community interest rather than to specific self-interest;
3. A high degree of self-control of behaviour through codes of ethics internalised in the process of work socialisation and through voluntary associations organised and operated by the work specialists themselves;
4. A system of rewards [monetary and honorary] that is primarily a set of symbols of work achievement and thus ends in themselves, not means to some end of individual self-interest.

So far, BARBER's approach is very similar to the 'trait' theory. Subsequent analysis makes clear the functionalist orientation. The first attribute, "a high degree of generalised and systematic knowledge" stems from the fact that knowledge provides as BARBER argues a "powerful control over nature and society, [and as such] it is important to society that such knowledge be used primarily in the community interest." Thus the repositories of such knowledge will exhibit a community rather than an individual interest, and as only the practitioners fully understand the implications of their own practices, it is natural that they should be allowed the dominant role in controlling its application. While state power may play some part in controlling occupational activities, it will always be subsidiary to professional authority in the field of practice. "Society", likewise, rewards

practitioners in the form of money and honour as an appropriate means of regarding such highly valued occupational performance. Honour tends to be more significant to professional practitioners because it is associated with the primacy of community as against individual interest.

PARSONS also points to the significance of central values in the emergence of professional occupations. He states that the professions represent "a sector of the cultural system where the primacy of the values of cognitive rationality is presumed." JOHNSON feels "PARSONS overemphasises the degree to which rationality dominates not only the content of professional practice but also colleague and client relationships." Nevertheless, PARSONS' views add weight to the functional approach.

The Profession of Pharmacy

Writers such as ETZIONI and MILLERSON argue that members of the newer or emerging professions claim the status of doctors and lawyers, as full professionals, whilst their claim is not fully established.

ETZIONI describes such situations as semi-professions and considers pharmacy to be such a semi-profession whilst MILLERSON considers that there is a range of professions separating the 'best' from the mediocre or indifferent. MILLERSON considers pharmacy to be an emerging profession striving to join those at the 'best' end of the continuum. JOHNSON argues that "the conditions which gave rise to the institutions of professionalism are no longer dominant in

industrialised societies." With moves away from patronage and mediative systems of control JOHNSON argues variations in the institutional framework of professional practice have occurred due to social changes. Thus professionals are increasingly employees of large organizations with the consequent implications of bureaucracy and attempts at external control. The public or clients professionals serve are better educated and more demanding. Thus increasing emphasis needs to be given to the client - professional relationship. Linking these ideas together the senior hospital pharmacist may be seen to be serving two quite different client groups. On the one hand they have the patients, colleagues, doctors and nurses as their clients (in a professional capacity) and on the other hand administrators, members, authorities and the Department of Health and Social Security on the other.

It would appear that JOHNSON's views are very relevant to the area under study as they appear to describe what has been happening to pharmacists in the hospital service as discussed in Chapters 10 and 11.

CHAPTER 5.

MANAGEMENT AND MANAGERIALISM - A REVIEW OF THE PERTINENT LITERATURE

Chapter 4 commenced with an examination of semantics in relation to professionalisation and professionalism. In a similar way when considering management and managerialism it will be necessary to be clear about the context in which I am using the various terms. A further complication, when management and managerialism are considered, is the very wide spectrum encompassed within those terms. Management is a very diverse subject applying to a very large number of occupations. It will therefore be necessary to focus on the area covered by management, to identify those aspects which are relevant to the hypotheses listed in Chapter 1. The purpose of this chapter is to define the way in which relevant terms will be used, to narrow down a wide subject, to identify relevant significant aspects and to examine what information can be obtained from a review of the literature.

The starting point is an examination of the definitions of management. No commonly accepted definition of management exists. There are many different definitions but they do have features in common. KOONTZand O'DONNELL [1972] define management "as the creation and maintenance of an internal environment in an enterprise where the individuals, working together in groups, can perform efficiently and effectively toward the attainment of group goals". DRUCKER [1969] suggests "a manager can be defined only by a man's

function and by the contribution he is expected to make". "The manager is the life-giving element in every business. Without his leadership 'the resources of production' remain resources and never become production. In a competitive economy, above all, the quality and performance of the managers determine the success of a business, indeed they determine its survival." BRECH [1963] describes management as follows:

"Management - A social process entailing responsibility for the effective and economical planning and regulation of the operations of an enterprise, in fulfilment of a given purpose or task, such responsibility involving:

[a] judgement and decision in determining plans and in using data to control performance and progress against plans: and

[b] the guidance, integration, motivation and supervision of the personnel composing the enterprise, and carrying out its operations."

BARNARD [1958] stresses "executive work is not that of the organization, but the specialised work of maintaining the organization in operation". RENOLD [1949] described management as "the process of getting things done through the agency of a community". ROSEMARY STEWART [1963] defined management as "deciding what should be done and getting other people to do it".

When you begin to compare and contrast these definitions two significant points emerge in my view. Firstly managers work by influencing others and secondly the concepts of

efficiency and effectiveness are either included or implied in most of the definitions.

It may be argued that the above definitions are related to business organisation and do not necessarily apply to the Health Service. That this is not the case, can easily be demonstrated. MILNE and CHAPLIN [1969] say "Hospital administration or management is a specilaised form of management. Thus the general principles, methods and tools of modern management are applicable to the hospital field ...". SPENCER [1967] likewise clearly indicates the Health Service should use business principles of management.

If these ideas are linked with the NOEL HALL Report, the starting point of this research, one can see the concepts of effectiveness and efficiency are important concepts in relation to the hypotheses. Indeed, the terms of reference of the NOEL HALL Report were "to advise on the efficient* and economical* organisation of the hospital pharmaceutical service ...".

BRECH [1963] usefully comments on the concepts of effectiveness and efficiency. "The inclusion of "effective" and "economic" is a significant item in the essence of executive responsibility ... the operation [of a business] could proceed without management, but [except for the chance case of accidental good luck!] it would be likely to proceed with waste of materials and manpower, loss of time, poor

* Author's underlining

quality results - all adding up to excess costs and the misuse of resources. The purpose of adding management is clearly to obviate such losses and waste. Put another way, the attainment of efficiency and economy of operations is inherent in the essence of the management process."

KOONTZ and O'DONNELL (1972) provide generally acceptable definitions of these concepts. "An organization structure is efficient if it facilitates accomplishment of objectives by people (that is, effective) with the minimum of unsought consequences or costs." "Assuming one of the major goals of any society is productivity (even though this appears sometimes to be unrealistic), managerial effectiveness is defined as simply how well and efficiently the managers of an enterprise in a given environment accomplish enterprise objectives." ie.

$$E = \frac{O}{I}$$

where E = effectiveness, O = output and I = input

Whilst this concept is very easy to understand real difficulties occur when one tries to use the concept in practice. FARMER and RICHMAN (1966) drew attention to this because:

1. There is often uncertainty because management decisions deal with the future.
2. Goals may be difficult to define and therefore outputs cannot always be easily measured.
3. Because management occurs overtime the conceptual ability and measuring techniques are not always available to

evaluate adequately.

4. There are limitations on the extent to which resources can be mobilised if this is necessary.

Nevertheless, because the concept of effectiveness is essential to sound management attempts must be made to create effective organisations inspite of the difficulties that are likely to be encountered.

Two further aspects that need discussion at this point are the concepts of the "Professional Manager" and "bureaucracy". The first because it may be considered a sub-division of professionalism and the second because it may be argued that the management of the hospital pharmacy service takes place in a bureaucratic setting.

BRECH (1963) devotes chapter VIII of his book to what he calls "The Profession of Management". He quotes at length from the work of LOUIS D. BRANDEIS (1914) to support his arguments that management may be considered a profession. Writing in 1914 BRANDEIS stated "Business should be, and to some extent already is, one of the professions". BRECH is forced to agree that public acceptance of management as a profession is not yet with us. Nevertheless, he clearly sees the process of professionalisation taking place among managers. KOONTZ and O'DONNELL whilst not writing about the professional manager do refer to business and professional codes. They consider there is a "rather widespread tendency of business groups, professional people, and even politicians to adopt

or to consider the adoption of codes of conduct". Examples of such codes may be found in the work of LANDIS [1955]. McGREGOR [1967] quite clearly sees management as a profession and some managers as professional managers irrespective of whether they are managing professionals or non-professionals. DRUCKER [1969] sees significant differences between managing professional and non-professionals. He is at pains to identify the distinctions between a professional employee and a manager. It is perhaps best summed up by the following quotation: " ... what distinguishes the professional employee from the non-professional worker, whether skilled or unskilled? It is primarily that he is a professional, that is, that his work, its standards, its goals, its visions, are set by the standards, the goals, the vision of a profession, that in other words, they are determined outside the enterprise. The professional must always determine himself what his work should be and what good work is. Neither what he should do nor what standards should be applied can be set for him. Moreover, the professional employee cannot be 'supervised'. He can be guided, taught, helped - just as a manager can be guided, taught, helped. But he cannot be directed or controlled."

From the foregoing discussion it can be seen management and professionalism are not quite separate aspects but overlapping concepts with much complexity. Many managers may well be orientated towards professional values as they assume the mantle of professionalism whilst carrying out the

role of manager. In Chapter 4 a definition of professionalism was given based on VOLLMER amd MILLS (1966). In contrast managerialism may be considered to be the instrumentalisation of managing. ie. A focus on the business of achieving goals efficiently and effectively. Thus it differs from professionalism in that managerialism is concerned with achieving goals rather than the nature of those goals or the advancing of a particular issue. Thus a managerialist can manage anything and is indifferent to values.

The second area identified was that of bureaucracy. Bureaucracy has a specific sociological meaning and is used to describe a particular form of organization with specific characteristics. WEBER (1947) discusses bureaucracy and much subsequent work on bureaucracy has its origins in WEBER's ideas.

The distinctive features of bureaucracy are specialization of jobs, a hierarchy of authority, a system of rules and impersonality. Specialization of jobs is usually highly developed in a bureaucracy. The specialization applies to the job and not the individual job-holder thus ensuring continuity when the present holder leaves. The hierarchy of authority makes clear who manages and who is managed. It is normally made quite explicit by the use of job descriptions and organizational charts. The third and fourth characteristics, a system of rules and impersonality are linked, in that the aim of rules is an efficient and impersonal operation.

Looking at these aspects in more detail MAX WEBER in MERTON [1952] spells out the criteria relating to bureaucracy. Thus the Managerial Ideal Type [Bureaucrat], as viewed by WEBER, can be identified by the following criteria:

1. They are personally free and subject to authority only with respect to their impersonal official obligations.
2. They are organized in a clearly defined hierarchy of offices.
3. Each office has a clearly defined sphere of competence in the legal sense.
4. The office is filled by a free contractural relationship. Thus in principle, there is free selection.
5. Candidates are selected on the basis of technical qualifications ... . They are appointed not elected.
6. They are remunerated by fixed salaries in money, for the most part with a right to pensions ... .
7. The office is treated as the sole, or at the least the primary, occupation of the incumbent.
8. It constitutes a career ... .
9. The official works entirely separated from ownership of the means of administration and without appropriation of his position.
10. He is subject to strict and systematic discipline and control in the conduct of the office.

ROSEMARY STEWART [1963] suggests that "in a bureaucracy greater emphasis is placed on the value of professional skill, or a rational matter-of-factness". On the other hand, "his freedom of action will be curtailed. He will be

restricted by the definition of his job's responsibilities and authority." ... "He must manage within the rules of the organization and accept the limitations on his authority, including his authority over his staff." These matters will be further developed in Chapters 10 and 11.

CHAPTER 6

HALL'S PROFESSIONALISM SCALE

In Chapter 4 I referred to the distinctions drawn between the terms profession, professionalization and professionalism. Reference was made to the work of VOLLMER and MILLS (1966) who clearly distinguish between them. In particular they prefer to use professionalism "to refer to an ideology and associated activities that can be found in many and diverse occupational groups where members aspire to professional status".

HALL (1967) developed an attitude scale to measure the degree of professionalism among practitioners of various occupations. Using LIKERT scaling procedures HALL used ten items to measure each of five attitudes of professionalism: use of the professional organization as a major referent, belief in public service, belief in self-regulation, sense of calling to the field, and a feeling of autonomy. The fifty questions developed as HALLS' professional inventory scale are listed in Appendix 1.

HALL's views were first presented as a paper, "Components of Professionalization", at the 1967 Annual Meeting of the American Sociological Association, San Francisco. They were subsequently published in "Professionalization and Bureaucratization" and "Occupations and the Social Structure" in 1968 and 1969 respectively.

In "Occupations and the Social Structure" he specifies on pages 81 and 82 the attitudinal attributes of professionalization that appear to be crucial. They are:

1. The use of the professional organization as a major reference. Both the formal organization, such as a bar association, and informal colleague groupings can be the major source of ideas and judgment for the professional in his work.
2. A belief in service to the public. This component includes the idea that the occupation is indispensable and that it benefits both the public and the practitioner.
3. Belief in self-regulation. This involves the belief that, since the persons best qualified to judge the work of the professional are his fellows, colleague control is both desirable and practical.
4. A sense of calling to the field. This attitude reflects the dedication of the professional to his work and his feeling that he would probably want to continue in the occupation even if fewer extrinsic rewards were available.
5. Autonomy. This involves the feeling that the practitioner ought to be allowed to make his own decisions without external pressures from clients, from others who are not members of his profession, or from his employing organization.

In studies involving both structural and attitudinal components of the professional model HALL used his scale to obtain data on groups of physicians, nurses, accountants, teachers, lawyers, social workers, stockbrokers, librarians, engineers, personnel managers, and advertising executives.

HALL's work was further developed by SNIZEK. SNIZEK (1972) explains how he came to the conclusion that HALL's scale could be simplified to a 25 item scale with clearer more precise measurement. In essence he used HALL's original data togehter with his own data to carry out a rotated factor matrices. The object was to determine the "fit" of the items used to measure each of the five theoretical dimensions of professionalism. This analysis revealed "that approximately half of the fifty items formulated by HALL have less than an acceptable factor loading on their appropriate theoretical dimension."

Further examination led to the view "that the scales difficulties lie with its items, rather than its sampling idiosyncracies. A study of item contents suggests several possible sources of these difficulties. One such may be the rather sporadic references to "self" noted within items. And their replacement by referents such as "the profession," "its work," and "others" detaches the respondent further. By the same token, respondents very likely interpret differently ambiguous words and phrases like "professional standards," "severe penalties," "colleagues," "competence," and even "society." To some "colleagues" may mean "professional associates," to others, "co-workers"; the two need not be synonymous. Some may interpret "society" to mean "mankind," others to mean one's immediate "clients." In summary, I believe HALL's scale would benefit from extensive item content modifications."

Since it would appear that SNIZEK's simplified scale

would give the measurements that were being looked for in this research his 25 item scale was adopted for use in the pilot survey. It also presented opportunities to reduce the amount of time required by respondents to answer the questionnaire and approximately halved the volume of subsequent analysis work. I agree with SNIZEK "deleting items of the type specified commends itself pragmatically and empirically."

The final scale was therefore developed using the HALL question numbers as given in the following table:

Table 2.

PIA Question Numbers

HALL Question Nos. Eliminated	HALL Question Nos. Retained (SNIZEK)	Professional Inventory Analysis. Item No. used in Pilot and Main Survey
3	1	1
4	2	2
10	5	3
11	6	4
13	7	5
19	8	6
20	9	7
21	12	8
22	14	9
23	15	10
25	16	11
27	17	12
28	18	13
29	24	14
30	26	15
31	33	16
32	36	17
34	39	18
35	40	19
37	43	20
38	45	21
41	47	22
42	48	23
44	49	24
46	50	25

If the questionnaire to be sent to the respondents (pharmacists) retained the numbers shown above I felt it might

cause some confusion as there would be apparent gaps with missing numbers. I therefore re-numbered the items sequentially 1 to 25. Allocating 1 to 1, 2 to 2, 3 to 5, etc. and 25 to number 50. For clarity these numbers are also shown in the preceding table.

The final area where modification to HALL's original inventory was necessary was the introduction. Minor alterations were made to make it specific to the pharmacy situation and to adapt to English usage. The alterations made were as follows:

1. The sentence "The referent in the questions is your own profession" was replaced with "The area to be considered in the questions is your own profession of pharmacy."
2. The last word of the first paragraph "profession" was replaced by "a pharmacist."
3. The words "in one fashion or another" were removed from the last but one line.

CHAPTER 7.

ENGLAND'S MEASUREMENT OF PERSONAL MANAGERIAL VALUES

ENGLAND (1975) reports on "nearly ten years of study and research concerning the personal value systems of managers." He is particularly interested in describing, measuring and understanding the personal value systems of managers and how values impact on behaviour. Examination of the book indicated it might well assist in the study being undertaken and described in this thesis. This chapter seeks to describe ENGLAND's work, comment on its strengths and weaknesses and relate the concepts to the problems being researched.

The Manager and His Values

In his introductory chapter, "The Nature of our Inquiry," ENGLAND argues "a personal value system is viewed as a relatively permanent perceptual framework which shapes and influences the general nature of an individuals behaviour." He sees similarities between values and attitudes but states that values are more ingrained, permanent, stable in nature and are less tied to any specific referent object than is the case with many attitudes. Value, as used by ENGLAND, is closer to ideology or philosophy than is attitude.

The significance and importance of studying the value systems of managers, ENGLAND suggests, can be seen when one considers seriously the following reasonable assertions and

their implications:

1. Personal value systems influence the way a manager looks at other individuals and groups of individuals, thus influencing interpersonal relationships.
2. Personal value systems influence a manager's perceptions of situations and problems he faces.
3. Personal value systems influence a manager's decisions and solutions to problems.
4. Personal value systems influence the extent to which a manager will accept or will resist organizational pressures and goals.
5. Personal value systems influence not only the perceptions of individual and organizational success, but their achievement as well.
6. Personal value systems set the limits for the determination of what is and what is not ethical behavior by a manager.
7. Personal value systems provide a meaningful level of analysis for comparative studies among national and organizational groupings of individuals."

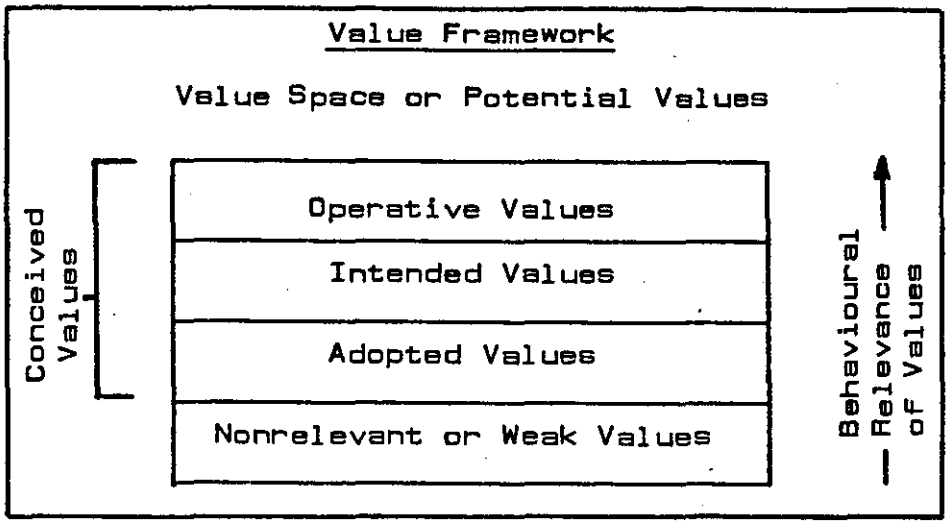
In developing a framework for ENGLAND's study it was felt that it must:

1. be responsive to relevant theoretical and definitional notions of contemporary value theory;
2. take account of the characteristics of the group being studied [managers];
3. be fully aware of the primary importance of the behavioural relevance and significance of values.

The Value Framework developed by ENGLAND is illustrated

by figure 3.

Figure 3.



All the possible values which might be held by an individual or by a specific group are defined as potential values. (Value space.) This value space can be divided into two. First there are nonrelevant or weak values and these are the values of an individual or specific group which have little or no impact on behaviour. Secondly there are conceived values which are those which may be translated from the intentional state into behaviour. In terms of the likelihood of behaviour change conceived values can be sub-divided into three sub-divisions. Adopted values are less a part of the personality structure of the individual or individuals and therefore affect behaviour largely because of situational factors. Intended values are those their holders view as important but which may have only a moderate probability of being translated from the intentional state into behaviour because of situational factors. Operative values, on the other hand, are those values which have a high probability of being translated from the intentional state into actual behaviour because they are part of the personality structure

of the individual or individuals. Thus the behavioural relevance of the values increases as one moves from non-relevant or weak values, through adopted and intended values to operative values which have the greatest chance of translating intention into behaviour.

In order to gather data on managerial values ENGLAND developed a questionnaire entitled "Personal Values Questionnaire" (PVQ). The development of the questionnaire was influenced by the work of OSGOOD et al (1957) and represents an adaptation of their methodology. ENGLAND argued that "the meanings attached by an individual to a carefully specified set of concepts will provide a useful description of his personal value system, which may in turn be related to his behaviour in systematic ways."

To develop a "carefully specified set of concepts" a pool of 200 concepts was selected from literature dealing with organizations and with individual and group behaviour. Additionally ideological and philosophical concepts were included to represent major belief systems. A panel of expert judges was used to reduce this pool to 96 concepts and the pilot studies reduced it to the final number of 66. The concepts were then divided into five categories to ease administration of the questionnaire:

1. Goals of business organizations.
2. Personal goals of individuals.
3. Groups of people and institutions.
4. Ideas associated with people.
5. Ideas about general topics.

With 66 concepts in five sub-groups it was now necessary to develop scales to be used in conjunction with them.

Since the general value of an object or idea to an individual is thought to be largely a function of its degree of importance to him, the primary mode of valuation utilized was the importance scale, which consisted of three points - high, average and low.

Because of the emphasis on the behavioural effect of values, it was necessary to make operational the theoretical distinction between the intentionality of values and their translation into behaviour. To the extent that it is possible to determine a consistent rationale as to why an individual or a specific group thinks certain concepts are important, it was argued, one has a reasonable basis for determining the behavioural significance of different classes of values. To make the theoretical distinction operational three secondary modes of valuation were developed from the literature.

The pragmatic mode of valuation suggests that an individual has an evaluative framework that is primarily guided by success-failure considerations: will a certain course of action work or not; how successful or unsuccessful is it apt to be? The pragmatic mode of valuation runs throughout much of the literature dealing with managers and finds support in various analyses of the ALLPORT-VERNON-LINDZEY (1960) Study of Values which suggest a major dimension of values as being "pragmatic and utiliterian" or the finding of a major value factor being "idealism vs. practicality".

The ethical-moral mode of valuation implies an evaluative framework consisting of ethical considerations influencing behaviour toward actions and decisions which are judged to be "right" and away from those judged to be "wrong". The existence of a moral-ethical orientation is at the very heart of most religious beliefs and is supported by analyses of the Study of Values which find value dimensions or factors such as "social and altruistic" and "idealism".

The affect or feeling mode of valuation suggests an evaluative framework which is guided by hedonism; one behaves in ways that increase pleasure and decrease pain. The Affective component of values has an extensive philosophical and psychological background and seemed important to include as an orientation.

In the PVQ, the pragmatic mode of valuation is represented by a "successful" scale; the ethical-moral mode of valuation is obtained through a "right" scale; and the affect or feeling mode of valuation is measured through use of a "pleasant" scale. A combination of primary and secondary modes of valuation was thought to be a better behavioural predictor than would be either mode alone. Thus those values, which were most likely to be operative, could be identified as those seen as of high importance and in line with an individuals' primary orientation. ie. Successful if pragmatic, right if moralistic and pleasant if of affect orientation. By definition mixed orientation cannot be predicted in terms of operative concepts because mixed individuals vary their approach through time.

In addition to the areas described above ENGLAND included in his PVQ a section to collect personal data on respondents and the HOPPOCK Job Satisfaction Scale. This scale has been used extensively in job satisfaction research. The four items which compose it are in figure 4 as follows:

Figure 4.

HOPPOCK Job Satisfaction Scale

A. Choose the ONE of the following statements which best tells how well you like your job. Place a check mark in front of that statement.

.... 1. I hate it.

.... 2. I dislike it.

.... 3. I don't like it.

.... 4. I am indifferent to it.

.... 5. I like it.

.... 6. I am enthusiastic about it.

.... 7. I love it.

B. Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job.

.... 1. All the time.

.... 2. Most of the time.

.... 3. A good deal of the time.

.... 4. About half of the time.

.... 5. Occasionally.

.... 6. Seldom.

.... 7. Never.

C. Check the ONE of the following which best tells how you feel about changing your job:

.... 1. I would quit this job at once if I could get anything else to do.

.... 2. I would take almost any other job in which I could earn as much as I am earning now.

.... 3. I would like to change both my job and my occupation.

.... 4. I would like to exchange my present job for another job.

.... 5. I am not eager to change my job, but I would do so if I could get a better job.

.... 6. I cannot think of any jobs for which I would exchange.

.... 7. I would not exchange my job for any other.

D. Check one of the following to show how you htink you compare with other people.

.... 1. No one likes his job better than I like mine.

.... 2. I like my job much better than most people like theirs.

.... 3. I like my job better than most people like theirs.

.... 4. I like my job about as well as most people like theirs.

.... 5. I dislike my job more than most people dislike theirs.

.... 6. I dislike my job much more than most people dislike theirs.

.... 7. No one dislikes his job more than I dislike mine.

The developed questionnaire, described above, can be found in appendix A of ENGLAND[1]. In summary the general rationale for ENGLAND's study is best summarised by him as follows: "Our starting point is the individual manager in a work organization; our interest is in his personal values and what they tell us about his work behaviour and outcomes of this behaviour. We are not studying organizations, industries, nations or cultures although each manager in our studies certainly can be placed within these broader frames of reference. It is apparent, however, that we must aggregate the individual results to focus on many questions of interest."

Strengths and Weaknesses

ENGLAND's approach was then considered in relation to the area being researched. It appeared to offer both strengths and weaknesses. The main strenghts and advantages appeared to be as follows: -

1. The area being researched was closely related to the assertions listed at the beginning of this chapter on page . In particular the fourth assertion, "Personal value systems influence the extent to which a manager will accept or resist organizational pressures and goals," is directly related to the hypotheses.
2. It was recognised that both attitudes and values would affect managerial behaviour and the actual behaviour would be a result of a mixture of both. This concept can be related to the idea that values and attitudes are important in shaping the actions of professionals in managerial positions.

[1] ENGLAND (1975) op cit pp 131-139

3. The methodology used was based on a well-known and extensively tested method developed by OSGOOD et al.

4. The managerial values assessed by the procedures are related to important outcomes such as dicision making and problem solving, personal success of managers and their levels of job satisfaction.

5. The study included an individual value profile of an American manager who was pragmatic in orientation. The value profile presented is not atypical to any large extent from that of the overall American manager value profile. It was felt this profile might offer a valid means of comparison with the pharmaceutical manager being studied.

6. The study provides a standard of value - success relationships. ENGLAND states: "Successful managers favor pragmatic, dynamic, achievement-oriented values while less successful managers prefer more static and passive values, the latter forming a framework descriptive of organizational stasis rather than organizational and environmental flux. More successful managers favor an achievement orientation and prefer an active role in interaction with other individuals useful in achieving the managers' organizational goals. They value a dynamic environment and are willing to take risks to achieve organizationally valued goals. Relatively less successful managers have values associated with a static, protected environment in which they take relatively passive roles and often enjoy extended seniority in their organizational positions."

The main weaknesses and disadvantages of ENGLAND's approach appear to be:

1. The large sample (over 2,500) is international with significant differences in culture among the countries studied. However, it does include America where direct comparisons may be more meaningful.
2. The study is concerned with business managers whereas my study is concerned with professional managers operating in a bureaucracy.
3. The analysis of the data which is collected is complex and time-consuming.

Use and Modifications

In considering ENGLAND's approach and its usefulness in relation to this research it is not intended to replicate his work in an identical manner and to draw exact comparisons. The intention is to use his methodology to gather relevant data which might provide pointers for more detailed investigation at a later interview stage. It is also intended to see to what extent his methodology is useful in this context. If it yielded signnficant and suggestive results with this group it would constitute an extension of his approach; extending a study of business managers to professional managers and American culture to English culture.

Thus the basic methodology would be followed but not all the detailed analysis stages carried out as it was not anticipated this would be necessary. However, if after administration the initial results indicated it would be useful then the data would be available.

The cultural differences and business orientation of ENGLAND necessitated modifications to ENGLAND's questionnaire if it was to be used in England with pharmacists. The reasons for this and the modifications are described in Chapter 8.

CHAPTER 8.

THE PILOT STUDY

The literature search and desk-work described in the previous chapters led to a decision to test out possible research instruments through a pilot survey. This chapter describes how the survey was designed, administered and analysed.

DESIGN

The purpose of the pilot survey was to test out possible research instruments for use in the main survey. In particular I wished to establish:

(a) Whether the instruments prepared would discriminate between individuals;

(b) Whether any difficulties would be experienced in completing the instruments (questionnaire);

(c) Approximately how long completion of the questionnaire would take.

Two possible measuring instruments had been identified. These were HALL'S Professionalism Scale as discussed in Chapter 6 and ENGLAND'S Personal Values described in Chapter 7. They would enable data to be collected on the degree of professionalization of hospital pharmacists and their attitudes towards personal (managerial) values.

The first stage in the design of a suitable questionnaire consisted of discussions with an Area Pharmaceutical Officer to assess the questionnaires' suitability to the work situation and to identify any modifications that might be necessary. The two instruments to be used were explained

to him in detail and his views sought. He explained that "pharmacists are quite used to filling in questionnaires and the HALL part, measuring the degree of professionalization, should present no problems at all" as far as completion was concerned. Further discussion of this point with him confirmed that the HALL questionnaire could be used in an unaltered form.

ENGLAND'S personal values questionnaire (PVQ) was seen as far less straight forward. As ENGLAND'S research was based on managers in business organizations on an international basis some of the concepts would be unfamiliar to pharmacists. The 66 concepts listed by ENGLAND were therefore considered individually against criteria of ease of common understanding, relevance to the research and relevance of terminology. As the list was discussed it became clear the possible modifications fell into two groups. Firstly there was a group of 13 concepts which could be removed from the list. This would simplify the questionnaire by reducing its length from 66 to 53 values. As the PVQ part of the questionnaire was likely to be the time consuming and more difficult part of the pilot survey questionnaire it was agreed that the following concepts should be removed as per the following table:

Table 5.

Concepts Eliminated	
England's Concept No.	Concept
2	Industry Leadership
12	Craftsmen
20	Stockholders
21	Technical Employees
37	Honour
54	Competition
57	Conservatism
60	Force
61	Government
62	Liberalism
63	Property
64	Rational
65	Religion

It was felt by the Area Pharmaceutical Officer and myself that the concepts were either inappropriate to the hospital pharmaceutical situation or already covered by other values. Eg. Pharmacy Technicians would cover concept 21 technical employees. (Concept of Pharmacy technicians follows in second group.)

The second group consisted of 11 concepts where it was agreed by the Area Pharmaceutical Officer and myself that although the concept applied the terminology was not appropriate to the health service. The agreed changes are listed in the following table:

Table 6.

Changes in Concept Terminology

England's Concept No. and Concept		Revised Terminology
3	Employee Welfare	Staff Welfare
5	Profit maximization	Service maximization
6	Organizational Efficiency	Pharmacy Efficiency
9	Employees	Staff
10	Customers	Patients
15	Owners	AHA members [Area Health Authority members]
17	Labourers	Pharmacy technicians
18	My Company	My Hospital
19	Blue collar workers	Ancillary staff
23	Labour Unions	Unions
24	White collar employees	Clerical staff

In addition it was agreed that:

1. The initial instructions were simplified but no changes were made in respect of the examples.
2. ENGLANDS' first group heading "Goals of Business Organizations" was replaced with "Goals of Hospital Pharmacy".

The final area for discussion centred around the personal information and job satisfaction parts of ENGLANDS PVQ questionnaire. After discussion it was adapted to show sex, grade, number of years since registration and age in place of questions 1 - 15 of ENGLANDS' questionnaire. Questions 16 - 19 of ENGLANDS' questionnaire were used as given with minor adaptations to change from American to English expression. They were re-numbered 5 - 8.

In the light of the foregoing comments a revised questionnaire was developed for use in the pilot survey. It is illustrated in its final form at Appendix 2.

ADMINISTRATION OF QUESTIONNAIRE

In order to test out the questionnaire the Area Pharmaceutical Officer agreed to invite a sample of twelve selected members of his staff to complete the questionnaire. The sample would include himself, as head of the pharmaceutical service within an Area Health Authority, and the following criteria were established to guide him in selecting the other eleven people:

1. All grades of qualified pharmacists should be covered as well as pre-registration students.

2. Both men and women should participate.

3. The sample should cover a cross-section of varying work situations. eg. Both acute and psychiatric hospitals, large and small, etc.

4. It should be administered to both those who were likely to find it easy to complete and those who were likely to find it difficult.

The basic details of those selected for the sample are shown in Appendix 3.

Once the sample had been selected the Area Pharmaceutical Officer agreed to administer the questionnaire on my behalf. During discussions with him it had become clear that some of the items on the questionnaire were of a confidential nature and this could give rise to difficulty if he handled all twelve personally. It was therefore agreed that the questionnaires should not contain names but a serial number.

The key to the identification numbers would be held by his secretary and made available to me, as the researcher, if required at a later date. In addition it was agreed that the distribution, completion, collection and return of the questionnaires would be undertaken by his secretary. This method of administration being chosen to ensure a quick, high response rate whilst protecting confidentiality.

ANALYSIS OF PILOT SURVEY QUESTIONNAIRES

Response Rate

All twelve pharmacists had completed and returned the questionnaire giving a 100% response rate.

Professional Inventory Analysis [P.I.A.]

The Professional Inventory Analysis had presented no problems in completion and all had completed it fully. In

order to analyse the data each question was allotted a score based on the following table:

Table 7.

Scores used to analyse P.I.A.

For questions 1, 2, 8, 10, 12, 13, 15, 16, 17, 19, 20 and 25 scoring was as follows:

Answer Circled	Score Allotted
VW	5
W	4
?	3
P	2
VP	1

For questions 3, 4, 5, 6, 7, 9, 11, 14, 18, 21, 22, 23 and 24 scoring was as follows:

Answer Circled	Score Allotted
VW	1
W	2
?	3
P	4
VP	5

Maximum possible score 25 X 5 = 125 points

Key

Answer	Meaning
VW	Very well
W	Well
?	Neutral opinion
P	Poor
VP	Very poor

The scores derived from the analysis are shown at Appendix 4. This Appendix shows the scores for individual questions, the sub-scores for the five attitudinal attributes and the overall score measuring the degree of professionalisation of the individuals in the survey.

The distribution of the P.I.A.scores was calculated using a programme from the "Statistical Package for the Social Sciences" on a Burroughs B6700 computer. The distribution of the P.I.A. scores is shown at Appendix 4. The mean score was 72.833, the standard deviation 14.6897 and the skewness -0.026. Although the sample was of limited size examination of the scores as shown at Appendix 4 seemed to indicate that managers (Principal, District and Area Pharmaceutical Officers) scored higher P.I.A. values than Basic grade or Staff pharmacists. The two pre-registration students scores lay either side of the mean.

The average score for each pharmacy sub-group was calculated. The results are shown in table 8.

Table 8.

Average P.I.A. Score - Pilot Study	
Pre-Registration Students	75.50
Basic Grade Pharmacists	58.25
Staff Pharmacists	75.50
Principal Pharmacists and District Pharmaceutical Officers	84.75

Thus aggregation of the scores for each pharmacy sub-group, and the calculation of the arithmetic mean for each pharmacy sub-group, began to confirm a rise in score as grade increased. The exceptions to this were the pre-registration students who scored 75.50.

The next analysis carried out was an examination of the data according to the five attitudinal attributes of professionalization as defined by HALL. The data on which this analysis was carried out is shown at Appendix 4.

In order to make the analysis more meaningful the scores were aggregated for each pharmacy sub-group by grade and weighted figures calculated as though each sub-group consisted of one person. The results of this exercise gave the following table.

Table 9.

P.I.A. Weighted Scores

Grade	Prof	Pub S	Self-Reg	Senscall	Auton
Pre-Reg	15.50	12.50	21.00	15.50	11.00
Basic	11.25	9.75	15.00	11.00	11.25
Staff	18.00	11.50	18.00	14.50	18.50
Principal/ District	16.70	13.00	17.70	16.70	17.30
Area	23.00	16.00	19.00	18.00	19.00

Key: Pre-Reg - Pre-Registration Students

Basic - Basic Grade Pharmacist

Staff - Staff Pharmacist

Key: Principal/ District - Principal Pharmacist/ District Pharmaceutical Officer

Prof - Using the Professional Organisation as a Major Referent

Pub S - Belief in Public Service

Self-Reg - Belief in Self Regulation

Senscall - Sense of calling to the field

Auton - Autonomy

Again examination of the scores in the table showed a tendency for pharmacy sub-group scores to increase with grade allowing for the different results from pre-registration students.

With trends by grade appearing from the analysis of the data it was thought further light might be shed by plotting the individual scores on graph paper against HALL sub-groups. Appendices 5, 6, 7, 8 and 9 , show the completed graphs. Examination of the graphs shows increase of HALL sub-group scores by grade in respect of the Use of the Professional Organization as a Major Referent, Sense of calling to the field and Autonomy. In respect of Belief in Public Service and Belief in Self-Regulation a similar pattern did not appear to be the case.

Personal Values

When the questionnaires were examined I found the personal values had presented some difficulties for three members of the sample. They had left blank 3, 1 and 2 concepts respectively out of the 53 concepts they were asked to assess. I discussed the position with these individuals and it became clear that they were unsure about the concepts

involved and therefore had not answered that part. The areas of difficulty related to:

In the first case, the concepts:

Patients, My Co-Workers and Conformity.

In the second case, the concept:

Organisational Stability.

In the third case, the concepts:

Organisational Stability and Service Maximisation.

I discussed the difficulties with each of the three respondents and the ease with which they were able to complete these concepts, after further thought, suggested little advantage would be gained from modifying the questionnaire as the concepts involved did not appear to be key areas. The other nine had completed the questionnaires without apparent difficulty.

The personal values were then analysed following the scoring and data analysis procedures given in Appendix C of ENGLAND. This is a complicated and lengthy procedure and therefore the main aim at this stage was to carry out a "By Person Analysis". The "By Person Analysis" enables each person to be classified according to their primary orientation. The four primary value orientations being: pragmatic, moralistic, affect or mixed. These orientations and their significance were explained in Chapter 7.

The detailed analysis of the pilot survey data is contained in the working papers and is not included in this thesis. However, for ease of understanding the methods used are now described.

Each PVQ concept can be scored in two ways. The primary or power mode of evaluation, importance can be evaluated on a three point scale - high, average and low rated 1, 2 and 3 respectively. The secondary mode of evaluation indicates the meaning a concept has for a respondent. Three rankings are used and the concept ranked one is the concept most likely to be associated in meaning with the term being evaluated. The terms ranked two and three are ignored in scoring.

The instrument does not yield a total score in the traditional sense. Instead a response matrix is constructed and from this the probability of a respondent making a given response is calculated from the frequency distribution of the total number of concepts scored.

The questionnaires were regarded as incomplete and excluded from the analysis if the respondent had left blank or not responded completely to more than 5% of the total number of concepts. In the pilot survey this did not apply as all respondents had completed the questionnaires fully. [In the three cases discussed previously they were easily completed after discussions with me.]

The first stage in the analysis, after exclusion of any incomplete questionnaires, consists of preparing a response matrix for each person. An example of a completed response matrix is shown in the following table 10.

Table 10.

Response Matrix Respondent No.2

	High Importance	Average Importance	Low Importance	Total
Right 1st ranked	3	1	2	6
Successful 2nd ranked	23	2	2	27
Pleasant 1st ranked	19	1		20
Total	45	4	4	53

To achieve this table each concept is examined and it is noted whether the concept has been marked high, average or low importance. Having identified this it is then observed which term has been ranked 1st of the terms, right, successful and pleasant. Once this has been discovered the score can be tallied into the appropriate box of the matrix. In the above example for instance, the respondent scored 23 concepts as high importance and successful, 2 concepts as average importance and successful and 2 concepts as low importance and successful. This process is continued until all concepts have been examined and a completed matrix produced. The response matrix is then converted into a matrix with proportions in the cells and margins. This is done by converting the numbers into percentages of the total number of concepts. These proportions are the probabilities that a concept will be placed in a given cell. The data shown at table 10 above is shown in this further form at table 11.

Table 11.

Proportion Matrix Respondent No.2

	High Importance	Average Importance	Low Importance	Total
Right 1st ranked	0.056	0.019	0.038	0.113
Successful 1st ranked	0.434	0.038	0.038	0.510
Pleasant 1st ranked	0.358	0.019	0.000	0.377
Total	0.848	0.076	0.076	1.000

Now that a proportion matrix has been established for each respondent the analysis can proceed to the second and third stages which consist of "By Person Analysis" and "By Concept Analysis".

By Person Analysis

The aim of the "By Person Analysis" is to classify each person into one of the four primary value orientations of pragmatic, moralistic, affect or mixed. To achieve this three steps must be carried out. Step one consists of selecting the largest category under the column High Importance. In the example given above in table 11 this is 0.434 [High Importance, Successful 1st ranked]. Step two consists of comparing this value [conditional probability] with its complement. The complement is the probability of responding Successful, given a rating of Average Importance and Low Importance. In the case of the example this is 0.076 [0.038 + 0.038]. If the largest conditional probability [0.434]

is greater than its complement (0.076) then the individual's primary orientation would be classified as pragmatic. If however, the complement is greater it would imply a mixed orientation. In the example the orientation is pragmatic. (ie. 0.434 is greater than 0.076.) If the largest conditional probability had turned out to be right or pleasant then the final classification would have been moralistic or affect respectively.

If when making the above examination the two highest conditional probabilities are tied the difference between each of these conditional probabilities and its complement is calculated. The primary orientation is then represented by the conditional probability having the largest difference between itself and its complement.

The final step provides a means to determine whether or not the primary orientation should be re-classified by utilising the joint probability of the operative cell. To achieve this, knowing the primary orientation of the person, the value in his operative value cell is examined. If this joint probability is less than 0.15, implying that less than 15% of the total concepts are operative values for the individual, his primary orientation is re-classified as mixed. The calculation is represented by:

$$P[S \cap HI] = \frac{\text{Number of concepts rated "successful" and high importance}}{\text{total number of concepts}}$$

In the example as 0.434 is higher than 0.15 no re-classification is necessary.

The results of the "By Person Analysis" of the pilot study sample are shown at Appendix 10.

By Concept Analysis

This involves looking at responses to each concept across all individuals in the sample. In Chapter 7 the theoretical model explained a concept may be operative, intended, adopted or weak. "By Concept Analysis" aggregations across all individuals in the group shows the proportion of the group for whom the concept is an operative, intended, adopted or weak value. In carrying out this procedure it is necessary to exclude those with a mixed orientation as it is not possible to obtain the relevant scores for them.

ENGLAND defines the values as follows:

Operative "A concept is classified as an operative value for an individual if it is rated as being of "high importance" and fits his primary orientation."

Intended "Intended values are those concepts which are viewed as being of "high importance" by an individual but do not fit his primary orientation."

Adopted "Adopted values are those concepts which fit the primary orientation of an individual but which he regards as being of only "average" or "low importance"."

Weak "Weak values are those concepts which are regarded as neither highly important by an individual nor fit his primary orientation."

To score the concepts a system of weighting is introduced:

Operative values scores	4
Intended values scores	3
Adopted values scores	2
Weak values scores	1

For purposes of identification the concepts were numbered 1 - 53 in sequence as listed in the questionnaire. eg.

High productivity = 1

Staff welfare = 2

Organizational stability = 3

down to Risk = 53

A matrix was now prepared by scoring each concept according to the rules given above to produce an analysis which showed a "By Concept Analysis" for each individual. This data is displayed at Appendix 11.

In order to draw attention to significant aspects of the analysis it was now necessary to aggregate the scores for each individual to total scores in relation to each concept. This was achieved by listing the 53 concepts and identifying which of the respondents had operative, intended, adopted or weak values in relation to each concept. For example, in relation to concept 1, High Productivity, it was found that respondents numbers 2, 9, 10 and 12 had High Productivity as an operative value, no respondents held High Productivity as an intended value, respondent number 3, regarded High Productivity as an adopted value and for respondents 6, 7 and 11 it was a weak value. The weighting figure, described previously, was applied to the number of respondents in any one of the four classifications, giving total scores for the pilot study sample as a whole against the 53 concepts. These results are listed at Appendix 12.

Possible Relationships between PIA Data and PVQ Data

Whilst the main survey questionnaire was being administered it provided an opportunity for work to be undertaken

on the pilot survey data to give further indicators which might be of help in analysing the main survey data. In particular I was interested in relationships between the data collected on professionalism (PIA) and the data on managerial values (PVQ).

The first investigation consisted of plotting the PVQ sub-group scores on graph paper against individuals. Thus graphs were produced showing sub-group scores for, Goals of Hospital Pharmacy, Groups of People, Ideas associated with People, Personal Goals of individuals and Ideas about General Topics. In addition individuals total PVQ score was plotted on a graph. The PIA score of individuals was also plotted on a graph against their primary PVQ orientation. These graphs have been retained in the working papers as they added little to our understanding.

In order to seek relationships between the PIA and PVQ data which were statistically significant it was decided to carry out a factor analysis on a computer. A computer package from the "Statistical Package for the Social Sciences" was used on a Burroughs B6700 computer. The factor analysis was principal-component analysis with varimax rotation.

The distribution of the PVQ data was first analysed showing a mean score of 140.25, a skewness of 0.381 and a standard deviation of 16.5831.

To carry out the factor analysis the data for the eight pilot study respondents who were of either pragmatic, moralistic or affect primary PVQ orientation was used.

(The four excluded being of mixed orientation.) For the analysis the following ten sub-group scores were used:

PIA Sub-groups

PROFREF	Professional Referent
PUBSERV	Public Service
SELFREG	Self Regulation
SENSCALL	Sense of Calling
AUTON	Autonomy

PVQ Sub-groups

GOALS	Goals of Hospital Pharmacy
GROUPS	Groups of People
IDEAS	Ideas associated with People
PRSGOALS	Personal Goals of Individuals
GENERAL	Ideas about General Topics

The results are shown in appendices 13-18.

Four principal factors accounted for 100% of the variance. (See appendix 17 for detailed percentages.) They appear to describe relationships in the fit between HALL data and ENGLAND data:-

Factor 1	Personal Values versus Professional Autonomy
Factor 2	Idealism
Factor 3	People orientation
Factor 4	Professional

Examining each one in turn the following comments can be made:

Personal Values versus Professional Autonomy

Factor 1 is strongly correlated with Personal Goals (0.91531) and strongly negatively correlated with Autonomy (-0.95033). It also correlates with General (0.88646) and

negatively with Sense of Calling (-0.69462). Other sub-groups have a low correlation.

Idealism

Factor 2 is very high on Public Service (0.87369) and high on Ideas (0.71469). It also correlates with Sense of Calling (0.60235) and has a low correlation with other sub-groups.

People Orientation

Factor 3 correlates with Groups (0.73723) and Self Regulation (0.52791). Personal Goals (0.25138) and General (0.21560) show low correlations. All other sub-groups show very low correlations.

Professional

Factor 4 correlates with Professional Reference (0.72611) and lowly with Autonomy (0.30908). All other sub-groups show low scores.

Notable is the high correlation of 'Personal Values versus Professional Autonomy' with Personal Goals. This aspect will be further discussed in Chapter 10.

Personal Data and Job Satisfaction

The final stage of the analysis was to analyse the personal data and job satisfaction questions. The personal data was easily summarised and is listed in Appendix 3.

In order to analyse the job satisfaction questions it was necessary to score them. This was completed using the scores given in the following table:

Table 12.

Job Satisfaction Scoring

Question Numbers	Answer Ticked	Score Allotted
5 and 6	1	1
	2	2
	3	3
	4	4
	5	5
	6	6
	7	7
7 and 8	1	7
	2	6
	3	5
	4	4
	5	3
	6	2
	7	1

Maximum possible score 28.

The results of this analysis are recorded in Appendix

Time to Complete Questionnaire

The length of time it had taken the pilot survey respondents to complete the questionnaire was discussed with them. It was established from these discussions that completion took between 20 and 30 minutes. In view of the volume of data being collected it was felt by the Area Pharmaceutical Officer and myself that this represented a reasonable completion time. The Area Pharmaceutical Officer also stated that in his view pharmacists would be prepared to give up to half an hour of their time to completion of the questionnaire.

CHAPTER 9.

THE MAIN SURVEY

The pilot study had been restricted to twelve respondents selected to give a cross-section of managerial and other posts within one Area Health Authority. Whilst this provided valid data for one NOEL HALL Area it provided a very limited sample of pharmacists working in the hospital service. The basic organisational unit developed by the NOEL HALL proposals was a "NOEL HALL Area". If the main survey was to be representative of pharmacists in the hospital service it must clearly encompass more than one NOEL HALL Area in order that any variations between Areas could be taken into account. In selecting the number of NOEL HALL Areas to be surveyed the following points were considered to ensure the survey was representative:

1. Both Teaching and Non-Teaching hospitals must be covered.
2. Both urban and rural areas must be included.
3. Acute, psychiatric, long-stay (chronic) and mental handicap hospitals should be encompassed as well as Regional specialities such as spinal injuries or neuro-surgery.

Consideration of these points led naturally to a decision to survey all the qualified pharmacists working within the boundaries of one Regional Health Authority. The statement "all the qualified pharmacists" needs explanation. This study is concerned with pharmacy managers and these are formally considered by Health Authorities to be:

The Regional Pharmaceutical Officers (RPhO), Area Pharmaceutical Officers (APhO), District Pharmaceutical Officers (DPhO) and Principal Pharmacists. Below these grades are Staff Pharmacists, Basic Grade Pharmacists, Pre-Registration Students, technicians, clerical and ancillary (manual) staff. Both Staff and Basic Grade pharmacists are qualified pharmacists. Staff pharmacists are considered to be the first level of management but their management responsibilities are very limited. Basic Grade pharmacists and Pre-Registration Students do not have management responsibilities but it is from within their ranks that managers develop. Technicians, clerical and ancillary staff provide supportive functions to the professional pharmacists and thus were excluded as they are not the direct concern of the study.

The researcher had previously worked for the Regional Health Authority within which the Pilot Study Area was situated. As both the geographical area and the "key" people were well known to him access would be easier if this Region was used. His knowledge and understanding of the hospitals and pharmaceutical service within the Region would also provide valuable insights provided any "researcher bias" was considered when analysing and discussing the data. The extension of the study to other Regions was also considered and rejected on the basis it would complicate the administration and analysis of the data without necessarily adding significant benefits at this stage.

Access to Respondents

The RPhO was known to the researcher and initially informal discussions were arranged with him to see whether he would be willing to provide access to all qualified pharmacists within his Region. The purpose and methods likely to be used in the research were explained and he agreed to support and encourage the research. He invited the researcher to attend his next monthly meeting with the APhO's to explain the research proposals and to seek their support.

Meeting with RPhO and APhO's

At the meeting with the RPhO and the seven APhO's the researcher was provided with an opportunity to explain the research, describe the Pilot Study and explain what would be involved in conducting the Main Survey. Examples of the questionnaire to be used were tabled and discussed. As a result of these discussions the following points were agreed:

1. The research was of definite interest to the group and they would be pleased to provide access, support and assist in the administration of the questionnaire.
2. On completion of the research I agreed to meet the group again and discuss my findings with them.
3. It was stated that pharmacists were used to receiving questionnaires and completing them but this did have drawbacks as well as advantages. In particular, it was felt there might be resistance to completing "another questionnaire", which at first glance appeared lengthy and complicated. With this in mind any idea of direct mailing to and from respondents was quickly

abandoned as likely to produce a very low response rate. In place of direct mailing the APhO's agreed to distribute and collect the questionnaires on behalf of the researcher.

4. This latter offer whilst overcoming the problem of distribution and collection raised another issue, that of confidentiality. The introduction to the questionnaire stated "The information you give will be treated as confidential and used for my research purposes only. Under no circumstances will your individual responses be made available to anyone except the research workers. The data I am attempting to gather is for use only in my research project." Firstly, it was felt that if the APhO's distributed and collected the questionnaires themselves, there might be suspicions that they would be party to the contents, inspite of the confidentiality undertaking given. Secondly, the questionnaires contained spaces for personal names and Area Health Authority name. These had been included as a means of identification was necessary in order that any queries arising out of the questionnaires on analysis could be followed up.

These problems were overcome by the APhO's agreeing:

1. To make it clear to their staff they were only acting as the researchers' "agent" and would not see the questionnaires once completed.
2. The distribution of the questionnaires to the staff and their subsequent return to the researcher would be undertaken by the APhO's secretary and the APhO would not personally be involved.

3. Once completed the questionnaires would be returned in sealed envelopes which only the researcher was empowered to open.
4. The personal name and Area Health Authority name sections would not be completed but would be replaced by an identification number. This number would be allocated by the secretary and a master identification list maintained by her for release, to the researcher only, if this was necessary.

Although these measures were not entirely foolproof, in the event they seemed to satisfy the staff. Evidence for this is demonstrated in Chapter 10 where some of the very frank comments expressed on the questionnaires are given. It would seem that respondents would have been very unwilling to make such comments if they had been in doubt about confidentiality.

Administration of Questionnaires

Bulk supplies of the questionnaires were distributed to the seven APhO's. They, in their turn, made arrangements for internal distribution and explanations, and their secretaries assisted as described earlier. The researcher asked for completion within one month and on the whole this was achieved. A small amount of telephone chasing was necessary but brought responses within a further week to ten days. The Main Survey Questionnaire was as shown at Appendix 19.

Returned Questionnaires

A total of 138 questionnaires were returned out of a population of 212 giving a response rate of 65%. Of the

138, twelve were subsequently not used as they had not been completed in sufficient detail for them to be analysed. Further comments on these 12 can be found in Chapter 10 which discusses the results.

Lecturers, School of Pharmacy

Lecturers in a School of Pharmacy are clearly instrumental in the socialisation process of pharmacy students. In order to provide data on the early stages of professionalisation of pharmacists the Professional Inventory Questionnaire was administered to the teaching staff in a School of Pharmacy. The population was 23 and 11 completed questionnaires were returned giving a response rate of 47.8%.

Analysis of Data

The questionnaires were examined and analysed in detail following the procedures described in Chapter 8. In particular the following results were established for each respondent:

Total P.I.A. Score.

P.I.A. Sub-group scores.

Sex.

Age Group.

Job Satisfaction score.

Primary Management Orientation.

Secondary Management Orientation for those whose Primary orientation was Mixed.

The data relating to these analyses is listed in appendices 20-30.

Literature Searches

Two literature searches were carried out during the

course of the research. In the early stages a manual search and in the later stages an automated search.

The initial manual search was confined to the Social Sciences Citation Index and the International Encyclopaedia of Social Sciences. The object was to establish whether similar studies had been undertaken and published elsewhere covering the ground identified by the Hypotheses listed in Chapter 1. No identical studies were discovered during the course of this search although many relevant references were identified to throw light on aspects of the research.

Towards the end of the research a further literature search was carried out to identify any further relevant publications. Initially a manual examination was made of:

Cumulative Index Medicus

Psychological Abstracts

Social Science Citation Index

Anbar Abstracts

Hospital Abstracts

Sociological Abstracts

Management Contents

International Pharmacy Abstracts

This manual examination led to the conclusion that the International Pharmacy Abstracts and the Social Sciences Citation Index were the most likely sources of relevant references.

The next stage in developing a search logic for the automated search was to decide on the key-words to be used. This presented a major difficulty as entries might be listed under any of the following terms:

Manager, Management, Administration, Public Administration, Bureaucracy, Role, Role Conflict, Pharmacist, Hospital Pharmacist, Profession and Professional.

In addition to the large number of key works that might be involved other problems of semantics occured. Administration as such, is used in some cases to refer to the administrative aspects of management and on other occasions to the administration of drugs in a pharmacological sense. Clearly the first use would be relevant to this research whereas use of the second meaning would probably produce a long list of irrelevant references.

A decision was therefore reached to confine the computer assisted automated literature search to the two most likely sources:

International Pharmacy Abstracts

Social Science Citation Index

covering the last ten years. The key-words to be used were:

MANAGE (which would cover, manager and management)

BUREAUCRACY

ROLE CONFLICT (which would cover role and role conflict)

PHARMACIST (which would cover pharmacy and hospital pharmacist as well)

Examination of these two sources with the above four key words produced 66 references from the International Pharmacy Abstracts and 33 references from the Social Science Citation Index. Manual examination of the print-outs identified 17 and 2 references respectively which appeared by their titles and descriptions to be relevant to the research. Photocopies of these articles were obtained and some of

these are commented upon in Chapter 11. A list of the 19 references is given in appendix 31.

Department of Health and Social Security (DHSS) Library

Telephone enquiries were made to the DHSS library for relevant references. This produced a list of 25 references of which 13 appeared to be relevant. Photocopies of these articles were obtained for study and they are listed at appendix 32.

Interviews

The questionnaires were designed to provide basic data with which to examine the hypotheses. It was also anticipated analysis of the data would indicate further areas for more detailed follow-up by interview. A range of semi-structured interviews was planned and carried out with 14 respondents. The 14 consisted of 4 Area Pharmaceutical Officers, 6 District Pharmaceutical Officers, one Principal Pharmacist (Psychiatric Hospital) and 3 other Principal Pharmacists (Drug Information, Quality Control and Production). The 14 were within four NOEL HALL Areas and provided a geographic spread as well as a spread of pharmacy functions. Thus the views of a range of pharmacy managers was obtained.

Each interview was held in private with only the interviewer and respondent present. The respondent was encouraged to speak freely and assurances of confidentiality were given. As it was necessary to explore the respondents views, attitudes and values the methodology adopted was that of a semi-structured interview lasting 1½ - 2 hours per respondent. Their agreement to the interviewer taking notes

was obtained.

Six discussion areas were identified for exploration. In each case the starting point was an opening question which was then followed up by the interviewer to clarify explanations and gain evidence of critical incidents. The six questions used were as follows:-

1. Since NOEL HALL has there been any change in the emphasis on management? If Yes, give examples. (Critical incidents).
2. Does this lead to conflict in relation to professional values and attitudes? If Yes, give examples. (Critical incidents). How were the conflicts resolved?
3. How do you get round rules which limit what you would like to do as a manager or professional?
4. How do you view career opportunities post NOEL HALL? Especially for the Senior grades? (Principal upwards).
5. If you had to make a decision which involved conflict between your values and attitudes as a manager and as a professional what points would you bear in mind in reaching a decision?
6. If you chose to resolve the conflict in favour of the professional viewpoint what sanctions could be used against you?

In addition information was gathered as to the range of work related contacts each respondent had and the frequency of such contacts. The results of the interviews are discussed in Chapters 10 and 11.

CHAPTER 10

DISCUSSION OF RESULTS

This chapter discusses and comments on the results of the Main Survey described in Chapter 9. It commences with a report on the difficulties encountered in administering and completing the main survey questionnaires. It then discusses the data collected and the results of the interviews. Chapter 11 makes more generalised comments on the findings relating them to theoretical considerations and possibilities for the future. Chapter 12 will then set out a summary of the research and its conclusions.

Main Survey - Hospital Pharmacists - Difficulties encountered

A response rate of 65% was achieved during the course of administering the main survey. Whilst this is overall an acceptable level it was lower than the researcher had anticipated bearing in mind the means of administration adopted and described in Chapter 9. The question thus arises, why is this so and how did it come about? A number of points are relevant in answering this question.

First, although all Area Pharmaceutical Officers had said that they would be willing to administer the questionnaire through their secretaries, clearly different degrees of involvement had occurred. Some, whilst not instructing their staff to complete the questionnaire, had clearly gone out of their way to encourage completion. A minority had very much left it to their staff to decide. This point can

be illustrated by the following quotation from a letter received from one of the APhO's. "I enclose all the questionnaires which I have received back from pharmacists in my Area. I am sorry for the poor response but as you will appreciate there is no way in which I can compel them to complete what is essentially a very detailed and personal questionnaire."

Secondly, one or two individuals had obviously reacted strongly about completing the questionnaire at all. One respondent returned a blank questionnaire with the following comment written on it:- "I regret that I find it quite impossible to complete this questionnaire. A large number of the questions asked are quite irrelevant to what I think and feel about pharmacy and professionalism, and in any case I could not answer them without qualification. The idea that one can give a 'near enough' reply so that the responses can be fitted into categories and analysed seems to me quite dishonest. In fact I could say that I am heartily sick of 'managing' and being 'managed'. Roll on my retirement."

The third type of difficulty arose in relation to completing the form itself. On the whole the P.I.A. part of the questionnaire was well completed and it was only necessary to contact four people out of the total sample to complete one or two unanswered questions. The PVQ part had caused more difficulty. Some questions had not been answered in some cases and occasionally a complete sub-section would be blank. This can be illustrated by an extreme case. The respondent had left blank all the "Groups of People" questions

and made a note - "You cannot generalise about groups of people and call them either 'right', 'successful' or 'pleasant'. Therefore I find it impossible to complete these sections."

Where only a few questions were incomplete the respondents were contacted and the form completed. This presented no difficulty where respondents had the opportunity to discuss their difficulties with the researcher. Where a group or a number of questions were incomplete the questionnaire was excluded from the subsequent analysis. ie. Of the 138 returned, 126 were used in the main analysis.

Professional Inventory Analysis - School of Pharmacy Staff - Difficulties encountered

When considering the values of pharmacists and the way in which they are formed and modified it is necessary to consider the socialisation of the pharmacist during the various stages of his career. The starting point is his time as a student in a School of Pharmacy. A major influence here is the teaching staff and therefore the main survey sought to gain data on their degree of professionalism by use of the P.I.A. Questionnaire. This proved a much more difficult problem than had been the case with the hospital pharmacists and is reflected by a final response rate of 47.8% compared with one of 65% for hospital pharmacists. The difficulties encountered provide useful information on the lecturers attitudes and values and also provide insights of value to future researchers in this area of study. A full explanation and discussion therefore follows.

Initial discussions were held with the Head of the School of Pharmacy to seek his agreement to the administration of the P.I.A. Questionnaire. The purpose and methods of administration were discussed and he agreed to support the investigation. The first problem to be overcome was the identification of the population to be surveyed. The School had 30 full-time staff plus a significant number of post-graduate research students who also undertake limited teaching. Of the 30 full-time staff some were wholly engaged in research, some were not qualified pharmacists and others had only limited contacts with undergraduate pharmacy students. After thorough discussion it was agreed the population should be the 23 full-time teaching staff who were qualified pharmacists and who had direct teaching responsibilities for undergraduates.

The next matter of concern was how the questionnaire might be administered. The Head of School, whilst agreeing I could state the survey was being undertaken with his backing felt it would be better if the researcher administered the questionnaire himself. This view arose out of his concern for the work overloads being experienced by some of his staff and his concern not to personally add another "burden" to their load. He also said "I cannot compel my staff to complete the questionnaire" and the distinct impression was left with the researcher that although the Head was personally supportive, due to other pressures and concerns, he would not be able to personally press for completion of the questionnaires by his staff. A list of those to be

surveyed was agreed and the researcher prepared to administer the questionnaire himself.

A letter to explain the purpose of the survey and to seek the co-operation of the staff was prepared and agreed with the Head of School. This letter is attached as Appendix 33. The letter and its attachment together with blank numbered P.I.A. Questionnaires were circulated to the 23 staff who had been identified. The staff were invited to return the questionnaires direct to me in sealed envelopes which were provided. The letter gave assurances of confidentiality.

The initial response was very disappointing. Only 4 of the 23 had returned completed questionnaires by the requested date for returns. A few days later the position had not changed. The researcher therefore decided to enquire whether difficulties were being experienced and if so could be helped. The Head of School was away from the office on other duties and therefore an approach was made to one of the four who had completed the questionnaire and who was a senior member of the staff. A very co-operative and useful discussion ensued from which the following explanations of the low response emerged:

1. The term "an emerging profession," used at the end of the Synopsis of the Study, had annoyed quite a large number of staff. Perhaps this is best illustrated by the following quotation from a letter I received from one staff member: "Your letter seems to reiterate what to me is an objectionable misconception of our profession.

Apothecaries, our natural predecessors, have been practising their profession for many centuries and the Pharmaceutical Society of Great Britain received its Royal Charter in 1840. How you can describe such an honourable profession as "emerging" is beyond me?

"Like all professions we are continually developing to meet the changing demands of our age. The problem with pharmacy is the competition between the commercial interests, eg. multiple companies, and professional demands. In this respect we are only still emerging after 140 years."

2. Some were objecting to the questionnaires as an affront to their personal liberty and objected to questionnaires in principle.
3. Some had commenced completion of the questionnaires but stopped when they thought it was getting repetitious. eg. Questions 5 and 12, 9 and 14, etc.
4. Some staff were carrying heavy work-overloads. Therefore any additional "work" that was not compulsory tended to end up in the waste paper basket.

Inspite of these objections the senior staff member held the view that an approach to individuals, on a personal basis, to clarify misunderstandings etc. would almost certainly increase the response rate considerably. In the event, this was the case.

The interviewer therefore personally met the 19 individuals who had not responded, either individually or in small groups of two or three at a time, in their offices or coffee

lounge. Once initial mis-understandings had been clarified all, with one exception, agreed to complete the form. Some completed it there and then on the spot whilst others agreed to return it through the post within a day or two. As a result of having had an opportunity to discuss the research some were particularly keen to get personal feedback of their own results and this was done on four occasions. The individual who refused to complete the questionnaire, whilst receiving me very civilly, said he objected to questionnaires in principle and would not complete it no matter what I said.

In the final event a total of 11 were completed and returned. Of those who returned completed questionnaires several had added annotations at the side of the questions to explain their thinking in answering that specific question. In addition some notes of a general nature were supplied without being requested. Two particular examples seem relevant here:

Firstly, "You will be misunderstood if you refer to pharmacy as an emerging profession. But in the profession, the idea of changing roles is well accepted. Hospital pharmacists at certain higher levels now have a developing role in management."

Secondly, "In the synopsis, the term 'emerging profession' is used more than once. This suggests that professional aspects, values and training are of greater import now than previously. I wouldn't agree with this at all. In many respects, I would say that the converse obtains and a

judgement made looking only in the direction your phrase suggests would risk the danger inherent in many enquiries based on questionnaires - they are designed to confirm bias intrinsic in the questions chosen. This is particularly so when they frustrate appropriate responses."

"As members of staff in Pharmacy Schools may generally do, and as I certainly do; care is taken to withhold personal criticism of aspects of the profession [from students] that I may hold. This is to allow students to acquire their own unproselytised attitudes. Humans of student age have a natural optimism and a willingness to acquire ethical attitudes that needs to be encouraged and allowed, to some degree, to shape itself. It is all too easy [and quite contemptible] to oversell the limits of one's profession."

A final relevant point arising from the individual discussions held between the researcher and the respondents relates to the terms "emerging profession" and "semi-profession". These two terms are used in similar ways by sociologists as both meaning the same thing. ie. An emerging or semi-profession is one that is moving along the continuum of degrees of professionalism towards the classical end of the spectrum as illustrated by the law or medicine. [See GOODE 1960 and ETZIONI 1969]. Whilst the term "emerging profession" seemed to have negative connotations causing annoyance and anger the term "semi-profession" was much more acceptable. Indeed two staff said they recognised pharmacy as a semi-profession.

Professional Inventory Analysis

One of the hypotheses listed in Chapter 1 read as follows: Senior pharmacy managers (APhO's, DPhO's and Principal Pharmacists) reduce their professional attitudes and values in favour of a managerial attitude and values as a way of coping with conflict. The question which now arises is, reduce from what? The answer is a reduction from the professional attitudes and values they held when they had minimal or no management responsibilities. (ie, Staff Pharmacists, Basic Grade Pharmacists or Pre-Registration Students.) In theory a group of newly qualified pharmacists could be identified and studied at intervals over a period of ten to twenty years as they progressed through their careers. This would be ideal but clearly presents many practical problems and was not within the time-scale of this research. The alternative approach adopted was to survey a representative group of pharmacists, covering the different stages in their career, and teachers in a School of Pharmacy. This would provide some measure of their attitudes and values as they progressed from School of Pharmacy to the top posts in managerial terms (APhO). Lecturers in a School of Pharmacy are a major socialising influence on pharmacists in training and were therefore included. Chapter 9 describes the sample covered and the detailed results derived from the questionnaires are listed at Appendices 20-25. It will already have become clear from Chapter 6 that HALL's Professionalism Scale was used for this measurement.

In order that more meaningful conclusions can be drawn

from the detail of this data the group mean scores, standard deviation and t-test of significance were calculated for each group by grade. The results of these calculations are shown in Tables 13 and 14 which follow:

Table 13

P.I.A. - GROUP MEAN SCORES, and STANDARD DEVIATION BY GRADE

Grade	Group Total Score / Number in Group	Group Mean P.I.A. Score	Standard Deviation
APhO	561 / 6	93.50	± 3.77
DPhO and Principals	995 / 12	82.92	± 7.71
Staff Pharmacists	3417 / 43	79.47	± 9.03
Basic Grade Pharmacists	3538 / 46	76.91	± 9.79
Pre-Registration Students	1413 / 19	74.37	±11.08
Pharmacy Lecturers	1106 / 13	85.08	± 9.58

Examination of table 13 shows two interesting features. Examining the mean scores by grade there is a marked increase in score by grade from 74.37 for the Pre-Registration students to 93.50 for APhO's. The Pharmacy Lecturers fall between the DPhO/Principal Pharmacists and the APhO's with a mean score of 85.08. Turning next to the degree of variability as measured by the standard deviation the APhO's stand out as a group as being much more consistent than the other grades. [APhO's = ±3.77]. As the level of grade reduces the degree of variability increases and the Pre-Registration

Table 14

PIA - t-TEST FOR DIFFERENCE BETWEEN GROUP MEAN SCORES BY GRADE

	APhO			DPhO/ Principal			Staff Pharmacists			Basic Grade Pharmacists			Pre-Registration Students		
	t	df	p=	t	df	p=	t	df	p=	t	df	p=	t	df	p=
DPhO/Principal Pharmacists	2.995	16	0.01												
Staff Pharmacists	3.681	47	0.001	1.184	53	0.20									
Basic Grade Pharmacists	4.030	50	0.001	1.938	56	0.10	1.265	87	0.20						
Pre-Registration Students	3.983	23	0.001	1.349	29	0.20	1.713	60	0.05	0.930	63	0.20			
Pharmacy Lecturers	1.874	17	0.10	0.573	23	>0.20	1.880	54	0.10	2.580	57	0.02	2.690	30	0.02

students are the least consistent group with a standard deviation of ±11.08.

To calculate the results given in Table 14 "the t-Test for a difference between two independent means" was used as described in BRUNING and KINTZ [1968]. The alpha level of significance for non-directional [two-tailed] tests is shown as p=.

From these results it can be seen that the differences between APhO's PIA mean score and those of the other pharmacist grades are very significant. [p = 0.01 for APhO/District/ Principal Pharmacists and p = 0.001 for APhO/all other grades.] The difference of means of APhO's from Pharmacy Lecturers is only significant at the 0.10 level. It can also be seen that there are very significant differences between the PIA mean scores of Pharmacy Lecturers and Basic Grade Pharmacists and Pre-Registration Students. [p = 0.02 in both cases.] There is little significance in other differences.

Sex

Pharmacy is a profession that attracts both men and women to its ranks. Table 15 on the following page lists the sex distribution of the sample surveyed.

It is not the purpose of this research to examine the sex structure of hospital pharmacists in relation to career progression in detail. Nevertheless it is reasonable to ask the question: Does sex type make any significant difference in relation to professional attitudes and values and manage-

Table 15

DISTRIBUTION OF SEXES BY GRADE

Grade	Men	Women
APhO	6	0
DPhO and Principal Pharmacists	8	4
Staff Pharmacists	22	21
Basic Grade Pharmacists	14	32
Pre-Registration Students	8	11
Total	58	68
Grand Total (Both sexes)	126	
Pharmacy Lecturers	13	0

ment orientation? To examine this question the group mean scores, standard deviation and significance of difference of means (t-Test) were calculated for each group by grade and by sex. The results of these calculations are shown in Tables 16 and 17 which follow.

Table 16 demonstrates for this sample that, overall, women have a higher PIA mean score than men but their scores are more widely spread. The male DPhO's and Principal Pharmacists are more consistent than their female equivalents. (Standard deviations $\pm$ 5.39 and $\pm$8.32 respectively.) For Staff Pharmacists the situation is reversed with standard deviations of $\pm$10.35 and $\pm$7.35 respectively. Basic Grade Pharmacists and Pre-Registration Students have similar consistency for men and women. The consistency of the all male APhO group is marked. (Standard deviation $\pm$3.77.)

Table 16

PIA - GROUP MEAN SCORES and STANDARD DEVIATION BY GRADE AND BY SEX

Grade	Group Mean Score		Standard Deviation	
	Men (n)	Women (n)	Men	Women
APhO	93.50(6)	ALL MALE	± 3.77	ALL MALE
DPhO and Principal Pharmacists	80.00(8)	88.75(4)	± 5.39	± 8.32
Staff Pharmacists	78.86(22)	80.10(21)	±10.35	± 7.35
Basic Grade Pharmacists	76.36(14)	77.16(32)	±10.10	± 9.64
Pre-Registration Students	67.25(8)	79.55(11)	± 9.00	± 9.47
Pharmacy Lecturers	85.08(13)	ALL MALE	± 9.58	ALL MALE

Table 17

PIA - t-TEST FOR DIFFERENCE BETWEEN GROUP MEAN SCORES BY GRADE AND SEX

M = Men W = Women		APhO			DPhO/Principal Pharmacist						Staff Pharmacist					
		Men			Men			Women			Men			Women		
		t	df	p=	t	df	p=	t	df	p=	t	df	p=	t	df	p=
DPhO/Principal Pharmacists	M	4.790	12	0.001												
	W	1.090	8	0.20	1.430	10	0.20									
Staff Pharmacists	M	3.220	26	0.01	0.260	28	>0.20	1.720	24	0.10						
	W	4.090	25	0.001	0.030	27	>0.20	2.010	23	0.10	0.420	41	>0.20			
Basic Grade Pharmacists	M	3.810	18	0.01	0.790	20	0.20	2.120	16	0.05	0.680	34	0.20	1.220	31	0.20
	W	3.960	36	0.001	0.640	38	>0.20	2.170	34	0.05	0.790	52	0.20	1.130	49	0.20
Pre-Registration Students	M	6.130	12	0.001	2.590	14	0.05	3.480	10	0.01	2.640	28	0.02	3.730	27	0.001
	W	3.240	15	0.01	0.100	17	>0.20	1.550	13	0.20	0.180	31	>0.20	0.170	30	>0.20
Pharmacy Lecturers	M	1.874	23	0.10	1.070	19	>0.20	0.600	15	>0.20	1.630	33	0.20	1.520	32	0.20

Table 17 is continued overleaf.

Table 17 (continued)

PIA - t-TEST FOR DIFFERENCE BETWEEN GROUP MEAN SCORES BY GRADE AND SEX

M = Men
W = Women

		Basic Grade Pharmacist						Pre-Registration Student					
		Men			Women			Men			Women		
		t	df	p=	t	df	p=	t	df	p=	t	df	p=
Basic Grade Pharmacists	M												
	W	0.250	44	> 0.20									
Pre-Registration Students	M	2.00	20	0.10	2.540	38	0.02						
	W	0.780	23	0.20	0.700	41	0.20	2.670	17	0.02			
Pharmacy Lecturers	M	3.090	25	0.01	2.390	19	0.05	3.820	19	0.01	1.310	22	0.10

These differences are analysed in more detail and the results shown at Table 17. From this data the following observations can be made:

(a) The APhO group mean scores are very significantly different from those of the other groups with the exceptions of Female DPhO's/Principal Pharmacists and Pharmacy Lecturers. (p = either 0.001 or 0.01 for all except DPhO's (Female) p = 0.20 and Pharmacy Lecturers p = 0.10).

(b) There is a significant difference between DPhO/Principal Pharmacists and Male Pre-Registration Students. (p = 0.05).

(c) There are significant differences between Female DPhO/Principal Pharmacists and Male Pre-Registration Students (p = 0.05 and 0.05 respectively).

(d) There is a significant difference between Male Staff Pharmacists and Male Pre-Registration Students (p = 0.02).

(e) There is a very significant difference between Female Staff Pharmacists and Male Pre-Registration Students (p = 0.001).

(f) There is a significant difference between Male and Female Basic Grade Pharmacists and Pharmacy Lecturers (p = 0.01 and 0.05 respectively).

(g) There is a significant difference between Male Pre-Registration Students and Pharmacy Lecturers (p = 0.01).

(h) No other differences are significant.

From the foregoing three points arise:

1. The APhO's as a group, appear to be "different" from the other grades, as their PIA scores are more consistent and

statistically significant than other grades.

2. There are differences between men and women in PIA scores.

3. The scores of the Pharmacy Lecturers are significantly different from those of Male Pre-Registration Students and Basic Grade Pharmacists but not at Staff Pharmacist level and above.

These three points will be further discussed in Chapter 11.

Sex and Management Orientation

A comparison was made between sex-type and primary management orientation. Comparisons both by groups and by grade yielded no significant differences. Orientations of Pragmatic, Moralistic and Mixed appeared to be equally distributed between the sexes. The only slight bias was for more women to be Affect oriented than men, (4 women and 2 men), but the numbers are so small they are of little significance.

Age

Hospital pharmacy is a predominantly young profession. (Majority in 20-40 years age group.) With the exception of Pre-Registration Students older people occur in all groups. It is apparent from a study of the age groups and grades as given in Appendices 26-30 that many of the senior posts (APhO's, DPhO's and Principal Pharmacist posts) are occupied by relatively young people for the level of responsibility. This is a direct result of the combined effects of NOEL HALL appointments and the Health Service Re-organisation in 1974. It is likely to produce career blocks in future years as many people in the senior posts at present are likely to hold them for some foreseeable time. This will limit the career

prospects of more junior staff and may well affect job satisfaction.

When age is compared with PIA scores the older age groups tend to have higher scores (ie. Professional orientation), but there are wide variations within age groups. Three possible explanations may account for this. First, it may be that promotion acts as a stimulus to professional orientation and thus increases in PIA score could be expected to occur in parallel with promotion. Secondly some pharmacists, after a few years, leave the hospital pharmaceutical service permanently or for a substantial period of time. The reasons may be varied. Women pharmacists marry and leave to bring up families. Both men and women leave to join retail practice or the pharmaceutical industry where, in both cases, salaries are higher. (eg. Currently a Retail Pharmacist in employment can obtain £2,000 a year more salary than as a Basic Grade Pharmacist.) If such people return to the hospital service they do not usually expect promotion and tend to rejoin it for the security if offers. Alternatively, a third explanation that I tend to believe as a result of my interviews, is that those who are initially more professionally orientated, remain in the profession, and seek and gain promotion.

Job Satisfaction

The degree of jobsatisfaction of the hospital pharmacists was measured by means of the HOPPOCK job satisfaction scale. (Questions 5-8 in final part of questionnaire.) The method of scoring was described in Chapter 8. The individual scores can be found at Appendices 26-30. The group mean scores and standard deviations were calculated by grade and are shown at Table 18 on the following page.

Table 18

JOB SATISFACTION - GROUP MEAN SCORES AND STANDARD DEVIATION BY GRADE

Grade	Group Mean Score (n)	Standard Deviation
APhO	22.33 (6)	±1.70
DPhO/ Principal Pharmacist	19.42 (12)	±4.68
Staff Pharmacist	20.55 (42)	±2.81
Basic Grade Pharmacist	19.80 (46)	±1.92
Pre-Registration Student	20.95 (18)	±5.49

APhO's and Basic Grade Pharmacists are more consistent in their scores than the other grades. (Standard deviation of ±1.70 and ±1.92 compared with ±4.68, ±2.81 and ±5.49 for other grades. Least consistency is found amongst Pre-Registration Students (±5.49) whilst DPhO/Principal Pharmacists are also less consistent with a standard deviation of ±4.68.

The job satisfaction data was then checked for significance using the t-Test for the Difference between Group Mean Scores. The results are shown at Table 19 (see over).

Examination of Table 19 shows little significant differences between grades. There is however a significant difference between APhO's and Pre-Registration Students where the p value = 0.05.

Table 19

JOB SATISFACTION - t-TEST FOR DIFFERENCE BETWEEN GROUP MEAN SCORES BY GRADE

	APhO			DPhO/ Principal			Staff Pharmacists			Basic Grade Pharmacists					
	t	df	p=	t	df	p=	t	df	p=	t	df	p=			
DPhO/Principal Pharmacists	1.39	16	0.20												
Staff Pharmacists	1.48	44	0.20	0.02	52	>0.20									
Basic Grade Pharmacists	0.05	50	>0.20	0.43	56	>0.20	1.56	86	0.20						
Pre-Registration Students	2.074	22	0.05	1.06	28	0.20	0.49	58	>0.20	1.77	62	0.10			

Overall the levels of job satisfaction were higher than the researcher had anticipated. There was some variability within the population covered but a feature of the above results is their relative uniformity and closeness. Area Pharmaceutical Officers seem to enjoy a higher job satisfaction than other grades. As a result of the interviews, described later, the researcher came to the firm conclusion that job satisfaction is fairly steady but with indications of both improvements and reductions to come as a result of the forthcoming Re-Structuring of the Health Service in 1982.

Managerial Orientation - Personal Values Question

Chapter 9 describes the administration of ENGLAND's PVQ Questionnaire and Chapter 8 described the methods of analysis used on the data. The outcome of analysing the main survey is listed in Appendices 26-30. In the case of those respondents who had been classified as of Mixed orientation their second orientation was identified in addition and is included in Appendices 26-30.

As a total group the respondents Primary orientations were as given in Table 20 on the following page:-

Table 20

MAIN SURVEY - PRIMARY ORIENTATIONS

Primary Orientation	Percentage of Respondents in Orientation Classification	ENGLAND Data USA %	ENGLAND Data International Reference Group %
Moralistic	43.7	30.3	24.4
Mixed	40.5	11.2	17.6
Pragmatic	6.3	57.3	52.9
Affect	4.8	1.2	5.1
Not classified*	4.7	-	-
	100.0%	100.0%	100.0%

* Not classified - due to failure to meet analysis rules

ENGLAND on page 20 of his book, tables the proportions of managers falling into the orientation categories for the five countries he studied and his international reference group. From this data the comparative figures for the USA and the international reference group have also been included in Table 20 as a means of comparison.

Examination of comparisons between these figures shows notable differences between the figures as is the case with the ENGLAND data when compared across all five countries. The most marked differences for the hospital pharmacists are the high (43.7%) level of moralists, the high level of mixed orientations (40.5%) and the low level of pragmatists (6.3%). It would appear pharmacy is a profession where ethical considerations (moralist) are of the uppermost importance.

A further hypothesis stated "Senior pharmacy managers

will have pragmatic orientations and will hold as important, values such as high productivity, organisational stability, pharmacy efficiency and service maximisation". This view follows on directly from the major emphasis on effectiveness and efficiency which can be seen as a central feature of managerialism as discussed in Chapter 5. ENGLAND identifies the value profile of a "successful" USA manager. He gives a thumb-nail sketch of such managers on page 10 of his book.

"USA Managers"

"Large element of pragmatism.
Have a high achievement and competence orientation.
Emphasize traditional organizational goals such as Profit Maximization, Organizational Efficiency and High Productivity.
Place high value on most employee groups as significant reference groups."

In more detail he lists the Operative values (ie. Concepts rated as High in Importance and viewed as successful) for such a manager on page 114. Those concepts listed are:

Organizational Efficiency
High Productivity
Profit Maximization
Organizational Growth
Organizational Stability
Achievement
Creativity
Success
Job Satisfaction

Influence

Ambition

Ability

Aggressiveness

Skill

Authority

Change

Competition

Rational

Risk

My Company

Customers

Me

Managers

Owners

The question now arose: How do the ratings of hospital pharmacy managers compare with their USA counterparts? To investigate this aspect a detailed analysis was carried out into the values listed above (or their health service equivalents). (eg. Organizational Efficiency became Pharmacy Efficiency.) Each respondents questionnaire was examined individually and for each of the concepts listed above it was noted where it had been rated, Highly Important and Successful. A running total was maintained by grade and the percentage of each grade which had rated each concept as Highly Important and Successful was calculated. These results are displayed in Appendix 34.

Examination of these figures leads to the following comments on each concept:

High Productivity - all grades similar

Organisational Stability - marked increase in importance with grade.

Service Maximisation - marked increase in importance with grade.

Organisational Efficiency - all scores high and increase with grade.

Organisational Growth - low score but increase with grade.

Patients - all very high scores.

Managers - very marked increase with grade.

AHA Members - low scores but marked decrease with grade.

My Hospital - Area Pharmaceutical Hospitals marked increase on other grades.

Me - low figure for District Pharmaceutical Officers.

Ambition - higher scores for Area Pharmaceutical Officers and Pre-Registration Students.

Ability - all high scores.

Aggressiveness - all very marked low scores.

Skill - marked increase with grade.

Achievement - marked increase with grade.

Job Satisfaction - all high. Some decrease with grade.

Influence - marked increase with grade.

Creativity - marked increase with grade.

Success - Pre-Registration Students scores higher than other grades.

Authority - low priority all grades.

Change - high figure for District Pharmaceutical Officers stands out.

Competition - increase with grade.

Rational - tendency to reduce with increase of grade.

Risk - low priority for all.

If the managerial grades of hospital pharmacists (APhO's, Principal and Staff Pharmacists) held values relating to effectiveness and efficiency in a similar way to the pragmatic USA business manager, one would expect some convergence of the results for the USA and UK. It might also be argued that a higher score could be expected with increase in grade. Clearly this is not the case. Results are much more randomly distributed without any overall pattern emerging. Some useful comments can be made on the data giving pointers for further investigation:-

Organizational Stability is important for APhO's and DPhO's.
Organizational Efficiency is very important for all grades.
Patients are highly rated by all grades.
Managers are important for APhO's.
AHA members are of low importance to all grades.
Ability is important to all grades.
Aggressiveness is very unimportant for all grades.
Skill is very important for all grades.
Job Satisfaction is very important for all grades.
Influence is more important for APhO's and DPhO's.
Authority is of low importance for all grades.
Change is very important for DPhO's.
Risk is of low importance for all grades.

When the pilot study was completed a Factor Analysis was carried out on the PIA and PVQ data as described in Chapter 8. The results were disappointing in that they did not substantially increase our understanding of the relative motivations and satisfactions obtained from meeting professional as opposed to managerial criteria. The most useful

finding was the high correlation [.92] between "Personal Values versus Professional Autonomy" and Personal Goals. After careful thought the possibility of carrying out a further Factor Analysis with the Main Survey data was rejected as unlikely to provide valid information which would help the researcher further understand the area being researched. It also would not provide opportunities to investigate some of the questions raised by the analysis of the concept data discussed in the preceding paragraphs. A more appropriate approach appeared to be the conduct of a series of semi-structured interivews to deepen understanding of the evidence obtained to date. The interviews were based on this material and on the extensive knowledge of the Health Service and the hospital pharmacy service of the researcher. The next section describes this aspect.

Semi-Structured Interviews

The range of staff that were interviewed, the method of interviewing and the six initial questions used was described in Chapter 9. A semi-structured interview was used, as it was necessary to guide the respondents into the areas for discussion on a common basis, whilst at the same time being careful not to ask leading questions. Each question was put to the respondents in turn and their replies noted. Follow up questions were used to ensure the researcher clearly understood their answers. Follow up questions were also used to gain illustrations and examples of the points they made and in particular to identify and obtain detail of critical incidents realting to the questions.

The detailed record of the interviews amounts to over seventy A4 pages of notes and contains a wealth of information. To present such detail in this thesis would not only be repetitious but would cloud the conclusions it is necessary to draw from the interviews. The detail has therefore been retained in the working papers and the salient and significant points arising from the discussions are described here.

Each question will be repeated. The thinking behind the question explained and the points arising from the interviews described and commented upon. Where appropriate critical incidents will be described and quotations from the discussion given.

Question 1. Since NOEL HALL has there been any change in the emphasis on management? If Yes, give examples?

Chapter 3 described the organisation of the Hospital Pharmaceutical Service both prior to and post NOEL HALL. The NOEL HALL Working Party was asked "to advise on the efficient and economical organisation of the hospital pharmaceutical service ... ." The report created a new organisational structure and placed a major emphasis on the management aspects of the service. Pre- and Post-NOEL HALL differences can be seen clearly from Table 1 in Chapter 3. Had there been any change in emphasis on management in practice since the NOEL HALL proposals were implemented and if so in what form? Question 1 was designed to answer this.

Answer

In every case there was an immediate response, Yes - management is a much more important aspect of our job now. Examples of this are: a DPhO - "Yes, very much so. We now manage. Our function and sub-functions have been rationalised. We have become accustomed to managing. We have seen its possibilities. We have realised we are managers."
An APhO - "I am a manager first and a professional pharmacist second."
Respondents then spelt out the way in which the emphasis had changed. The main points which were given as illustrations were:
There has been an increasing emphasis on effectiveness and efficiency. Started by the NOEL HALL report it gained further momentum from the 1974 Health Service Re-Organisation and the financial constraints which have arisen since 1975. Respondents found it almost impossible to separate these three aspects but it was clear there had been a substantial change of emphasis. This pressure for effectiveness and efficiency pervaded all aspects of the pharmacy service and covered both manpower, finance and equipment.

A second significant point was the increasing emphasis on the financial aspects of management and in particular cost containment and reduction. This aspect will be developed more fully in answers to Question 2 dealing with conflict.

The change in attitude on the part of pharmacy managers in terms of a greater awareness and acceptance of their management role was implied by the initial quotations in this section. The fact that they would initiate management action

much more frequently than in the past, rather than respond to others initiatives, was quoted by several as a significant change.

Attention was drawn to the increasing amount of time devoted to management training activities which previously had not accurred or had occurred only on a very limited and spasmodic basis.

It was stated future planning was now a prominent feature of managing and roles and relationships were much more clear.

An interesting feature, also arising in answers to other questions, was an increasing emphasis on the bureaucratic aspects of the Health Service. This was not primarily identified with NOEL HALL but with the 1974 Health Service Re-Organisation. Relationships with the personnel function was frequently quoted and incidents seem to relate to problems over replacing staff who were leaving, "unnecessary" returns, etc.

This latter point, growth in bureaucracy, seemed on the surface to clash with a final point - that pharmacy managers now had more professional autonomy in the management of pharmacy staff then previously. It was said by a DPhO - "The APhO is very much the King of his Castle. He has almost complete power in the line management of his Area." Bureaucracy seemed to creep in, not in their own departments but when the work situation required the co-operation or active support of other departments or disciplines such as personnel.

Question 2. Does this lead to conflict in relation to professional values and attitudes? If Yes, give examples. (Critical incidents.) How were the conflicts resolved?

A hypothesis listed in Chapter 1 stated - "Hospital pharmacists who hold both managerial and professional responsibilities will tend to be drawn into situations of conflict between their values and attitudes as managers and as professionals." If there had been an increasing emphasis on management and the hypothesis was true then examples of such conflicts should be apparent. Conflict in this sense was defined as making managerial decisions where the outcome or solution that was desirable from the managerial point of view was at variance with the outcome that was desirable from the professional point of view. A simple example is the conflict between the managerial concern to reduce costs and the professional concern with standards of service.

Of all the questions this question gave the respondents most difficulty initially. Two-thirds seemed to have difficulty in understanding the question. The reason for this appeared to be that conflict as such was not at the forefront of their minds. Open conflict or conflict of a dramatic type was a rare event in their work situations. They accepted there were disagreements but few conflicts. (The distinction seemed to be a matter of degree. Disagreement was inevitable but conflict a rare event.) The attitude seemed to be Summed up by one DPhO who said - "If there is conflict it

is Profession versus Profession not Profession versus Management." The other third of the respondents could identify conflict areas immediately. After further discussion all accepted that conflict as defined by the researcher did exist and was on the increase with the increase of management activity. It is significant that of the seventy pages or so of notes on the interivews thirty four pages (approximately 50%) were on this question.

The conflicts themselves fell into two groups. Firstly there were conflicts with others external to the hospital service. An example of this would be with the pharmaceutical manufacturing industry where an APhO said - "Industries' major objective is to sell their products. It is not necessarily the most appropriate product for patients on effectiveness nor efficiency grounds. This can lead us into conflict with them."

A more specific critical incident relates to the development of health centres for general practitioners and other health professionals. It was stated that it is a statutory requirement for pharmacy provision if the local general practice pharmacists want it. This decision is a matter of need and discussion at the local pharmaceutical committee. Such situations can lead to conflict for the APhO who may be torn between the managerial requirement to support his fellow health service colleagues, who are planning the health centre, and his professional loyalties to the general practice pharmacists whose difficulties and

point of view he can understand from his professional view point. When asked how such conflicts were resolved an APhO (supported by similar comments from his colleagues) said - "The provision of the best service for the patient is the key to this situation. I act as a negotiator* between the parties involved (Planners, G.P.'s, local general practice pharmacists etc.) to bring about the best possible service to the patient within the constraints operating." This theme of negotiating I shall return to later.

The second and largest group of conflicts was within the hospital service itself. This can and does involve pharmacist managers in conflict with a wide range of people - their own staff, medical staff, administrators, finance staff, nurses, etc. The circumstances which give rise to these situations are many and varied - staffing levels, equipment, quality standards, cost reductions and cost containment are typical examples. Out of the many critical incidents described during the interviews three have been selected as typical or important.

APhO's, DPhO's and Principal Pharmacists all mentioned conflict with their own staff. A typical incident would develop this way. It had been custom and practice for many years for pharmacists in an outpatient dispensary to collect prescription charges from outpatients on behalf of the finance staff. With increasing pressure of pharmacy work (increased OPD attendances with same staffing level) and increases in cash handled (government increases in prescription charges) pharmacists were objecting to handling cash as they regarded

* Author's underlining

it as an activity which did not require their professional skills. The pharmacists demanded that the DPhO/APhO should arrange for a cashier, from the finance department, to be available; to collect the charges and thus release the pharmacists for professional activities. The DPhO/APhO having sympathy for the professional viewpoint of his pharmacists would represent their views to the District Finance Officer (D.F.O.). The D.F.O. whilst understanding and accepting the pharmacists' point of view would be unable to agree to it for two reasons. He had no spare staff and due to financial shortages no funds to appoint an extra post. Secondly, the job would be very much a part-time one and if such a person was appointed there would be long periods of unoccupied time which would be inefficient. The DPhO/APhO having a wider appreciation of the management aspects of the situation than his staff, and bearing in mind the benefits to the service as a whole, would back the D.F.O.'s view. He reports this to his staff telling them they will have to continue to collect prescription charges. The staff's reaction would typically be one of disappointment and a feeling they had been let down professionally by their boss with subsequent strained relations and conflict. In some cases DPhO's/APhO's accepted this as "a cross they had to bear." In other situations the staff would not accept the decision and the conflict was ultimately resolved by either the introduction of ticket machines that the patients could use or the use of unpaid volunteers to collect the charges.

A second example might concern quality control. Quality

control is a Regional function and its task is to ensure quality standards are maintained for all manufactured products in accordance with the MEDICINES ACT 1968. Manufactured products are placed "in bond" until released by quality control (Q.C.) after tests have proved the products safe. An incident arose in this way. On a Saturday morning a particular fluid was required urgently for an in-patient. The hospital pharmacy was out of stock but it was known that stock was available "in bond" whilst tests were proceeding It had not yet been released by Q.C. The local APhO said that in his professional judgement sufficient quantities should be released from bond now to meet this need. The local Q.C. pharmacist refused to do this as to do so would be contrary to the MEDICINES ACT 1968 as interpreted by the Medicines Inspectors. This led to a conflict of views between the two in which the APhO argued his professional and managerial responsibilities were being undermined. In the event the immediate crisis was overcome by the special manufacture of a one-off batch but this was inefficient from the management point of view as it is more costly and not subject to as stringent controls on quality standards.

The third and final example of conflict within the hospital service is a very complex one of national concern. It is related to the rising cost of drugs on a national basis and is a major concern of Central Government represented by the DHSS. There have been pressures nationally for many years but the interviews made it very clear that this had been an area of increasing concern particularly over the past five years. That it is still a very current concern

is illustrated by the concluding paragraph of Sir Patrick NAIRNE's (Permanent Secretary DHSS) letter dated 21st November 1980, to Chairmen of Area Health Authorities which states: "The Department fully understands the problems which confront Health Authorities in the control of drug costs. The financial pressures on the NHS, reinforced by the views of the Public Accounts Committee, underline the importance of the measures I have outlined above, and of looking for all possible means of restraining this large area of national expenditure."

The size of the problem can be gauged from paragraph 1 of the Twenty-Fifth Report of the Public Accounts Committee which states:

"In 1979 the cost of pharmaceutical prescribing borne by the National Health Service reached a total of £1,084 million, an increase of £134 million over the previous year. Under the NHS general practitioners and hospital doctors may prescribe any drugs that they consider to be necessary for the treatment of their patients. But the health departments have recognised the need for methods of influencing prescribing costs which would be both effective and acceptable to the medical profession. The Secretary of State for Social Services issued a joint statement with the British Medical Association in 1978 drawing the attention of the general public and family doctors to the need for a greater appreciation of the real value and limitations of drugs, and for an improved awareness of their place in treatment and cost. The Secretary of State said that over £20 million a year was being spent on preparations such as cough mixtures,

laxatives, slimming pills and vitamins and that there was scope for saving some £40 million a year on the proportion of sleeping pills, tranquillisers and anti-rheumatic preparations which resulted from patient demand and pharmaceutical advertising."

Pressure is being placed on GP's to restrain prescribing costs but also on the hospital service. One of the ways this occurs is described in paragraph 10 of the Public Accounts Committee Report. It states:

"Hospital doctors are not in general provided with details of their prescribing costs, but the health departments have recommended to health authorities other measures to encourage efficiency in prescribing. These include the formation of local prescribing committees to review drug costs and disseminate information, and the restriction to senior medical staff of authority for the use of new and expensive preparations. DHSS told us that as a kind of self-imposed limitation, hospitals sometimes produced a simple formulary providing a broad limited basis for the drugs which they expect clinicians to use."

Pharmacist managers frequently find themselves drawn into conflicts relating to this area either as a result of their own initiatives or the initiatives of others. The researcher specifically asked the respondents if they were ever asked to cut or reduce drug costs and if so by whom. They were very immediate in their answer that they are <u>not</u> asked to do this as it lies outside their power. The cost is incurred as a direct result of prescribing and the power to prescribe is legally restricted to qualified Doctors and

Dental Practitioners (save in very exceptional circumstances). They were then asked how they become involved in conflict in this area and it became clear it was as a result of their involvement in Drug and Therapeutic Review Committees, preparation of local formularies, development of stock-control systems, etc.

Discussions with the respondents drew attention to a number of valid points:

1. Prescribing is the main aspect of cost increases.
2. APhO's have the power to buy in the most efficient way but that sometimes means extra resources are needed. eg. Computerised stock control systems.
3. Prescribing hanits of Doctors and Dentists can only be changed as a result of influence.
4. An APhO will "go along with economies if it gives better patient service. We must make the best use of money. Resources are limited. We should use a suitable drug not an expensive one where suitable alternatives are available."
5. "Emphasis should be on value for money - cost effective prescribing."
6. APhO's would be unwilling to supply cost information only for decision making in this area. The pharmaceutical properties of the drugs must also be taken into account. Indeed, some APhO's would "be quite happy to see an <u>increase</u> in drug expenditure if it:
   1. Cured patients more effectively; or
   2. Reduced the patients overall length of hospital confinement and therefore total hospital costs."
7. Pharmacy managers were very concerned with "the patient".

Some argued it was ingrained in their profession as part of their values.

8. There was total acceptance that drug costs must be contained in the interests of the health service at large. (See 4 above.)

One APhO felt that "credible advice is the key to solving problems in thes area." Interestingly this lines up very closely with the views of FULMER and RUE (1973) who give their view that in the future, a demonstration of competence will be a major consideration for any manager who is to succeed.

This latter point takes us into the way in which conflicts in this area are resolved. They could be with Doctors, Dentists, finance staff or other pharmacists. Because of the nature of the decisions rational judgement based on the facts was often not always an appropriate decision making process. A great deal of professional judgement was often involved and therefore professional negotiation was the usual means of resolving conflict in the area of drug cost restraint. Negotiation was often lengthy and not always successful. However, some very good examples of success were also quoted, particularly where over a period of time pharmacist "competence" had been demonstrated and accepted by the medical and dental professions.

Question 3. How do you get round rules which limit what you would like to do as a manager or professional?

STOUFFER et al. (1949) holds the view that selective disregard of official rules is essential for carrying out bureaucratic work. ZIMMERMAN (1970) suggested "Rules and policies are to some degree abstract and general, and hence by their very nature incapable of completely encompassing the perversely contingent features of manifold and changing organizational situations."

As "getting round rules" might be one way of resolving conflict that exists for pharmacists managers the question was designed to seek evidence as to what actually happened.

Initially some respondents were clearly hesitant to answer the question. Re-assurances about confidentiality and the "circumstances" in which bending the rules was "justified" obviously re-assured them. Examples were then forthcoming to illustrate this situation. Ways of getting round rules involved one or more of a variety of approaches. The main ones were:

"Just ignore them."

Virement to other budget heads unofficially or in collusion with finance.

Using local sources instead of Area or Region.

Telling "white lies" .

Going along with the principle but not the letter of the "law".

Many caveats were expressed as qualifications to getting round rules. Among the main ones were:

"I would not bend rules if professional standards are lowered."

"I won't break rules but I will bend them."

"If I think the rules are wrong I would probably take up battle to get them changed."

"I will not be dishonest."

Clearly many were unhappy with the idea of breaking rules but would "bend" them in certain circumstances to resolve the conflict.

Question 4. How do you view career opportunities post NOEL HALL? Especially for the senior grades? (Principal pharmacist upwards.)

The NOEL HALL Working Party in making recommendations for the hospital pharmaceutical service was specifically asked to make recommendations which would provide "a suitable career structure for pharmacists and supporting staff." In order to progress through the career structure it is necessary to move into management. To do this one needs to demonstrate management potential or success in minor management situations. As a junior manager (Staff Pharmacist) one needs to demonstrate success as a manager if one is to progress further. One way of demonstrating management ability is to show that you can cope successfully with the handling of conflict - an essential feature at the more senior levels. Those who aspire to promotion are therefore more likely to be keen to handle conflict successfully in order to demonstrate to their "boss" that they have potential for advancement, thus enhancing their career prospects. Conversely, if career prospects are limited, the motivation to deal successfully with conflict may be significantly

reduced.

It follows from this that a knowledge as to how hospital pharmacists view their career prospects is important in understanding issues of conflict and how it is resolved.

Answers

There was universal recognition (with qualifications which will follow) that the career structure was much improved. As one APhO stated, "The tree has got higher," or a DPhO "It has dramatically improved post NOEL HALL". Improvements have been in terms of increased seniority of posts, increased number of posts, increased salary and younger promotion. Also management training has been increased with career development in mind. For many pharmacists the post NOEL HALL period has been a "boom time" in terms of promotion. This signals some of the qualifications.

The time for the Re-Structuring of the Health Service (1982) is nearing. The Governments proposals as published in "Patients First" and Health Circular (80)8 make existing staff feel very uneasy. Although the circular suggests NOEL HALL areas might be maintained it is by no means mandatory. As AHA's are to be abolished and replaced by smaller District Health Authorities (DHA) the pharmacists fear a fragmentation of their service with loss of status and career prospects. This follows on from the Governments decision that local organisations are to be determined by DHA's themselves. Thus it was said more than once "The forthcoming re-structuring will undo all the good NOEL HALL has done." Whether this

is so remains to be seen.

The second qualification concerned specialists in hospital pharmacy. "Specialists" work in sub-functions of hospital pharmacy namely Drug Information, Quality Control and Production. To work in these areas requires specialist knowledge and experience. The most senior level that such a specialist can reach is Principal Pharmacist which is three stages below the maximum possibilities for other pharmacists in the hospital service. Thus the career ladder is appreciably shorter. The only way they can overcome this difficulty is to give up their specialisation to move into general pharmacy management. Whilst one can advance arguments in favour of this many of the specialists do not wish to do this in terms of job satisfaction.

The final area of concern was related to the young age of many at present in senior posts. With the Re-Organisation of the Health Service following on so quickly after the introduction of the NOEL HALL proposals the situation now existed where many of the senior posts (RPhO, APhO, DPhO) are occupied by relatively young people. (Age groups 30 - 45 approximately) Whilst this has been very good for those in post it is likely to "lead to a period of stagnation career wise" as one Principal put it. This not only reduces the opportunities for junior staff to gain promotion (ie. progress is blocked) but means many existing senior managers have many years ahead of them with no further prospects of career advancement.

Question 5. If you had to make a decision which involved conflict between your values and attitudes as a manager and as a professional what points would you bear in mind in reaching a decision?

It was suggested by ENGLAND (Chapter 7) that a number of assertions can be made about personal value systems. Of the seven listed the following four relate to Question 5:

Personal value systems:

1. influence a managers' perceptions of situations and problems he faces.
2. influence a managers' decisions and solutions to problems.
3. influence the extent to which a manager will accept or will resist organizational pressures and goals.
4. set the limits for the determination of what is and what is not ethical behaviour by a manager.

The question was designed to investigate what aspects of the respondents personal value system would be brought to bear in conflict decision making and to what extent did the above assertions apply in this situation.

Answers

A number of different answers (reflecting different personal value systems) as well as a number of common themes emerged from discussions on this question. The most lucid reply came from a DPhO who said: "My view of management is - you must do the best you can within the constraints - one of the constraints is your professional role. I try to seperate out professional standards. I ask the question -

what must I not compromise? The patient is ingrained in professional standards. Generally speaking I bear in mind the long term interests of the patient in making a decision." This theme of "what is in the patients' interest" was frequently mentioned. An APhO said: "I have no doubt at all. The patients' interest is the key. My job is to see, in so far as I am able, the people of the Area get the best pharmaceutical service. (best - "best within reason") It is the patients interests I would take into account."

A second theme was that of what is best in the medium or long term.

A further theme was related to the maintenance of professional standards. Statements like: "You must maintain professional standards. You must not let yourself or the profession down." "Is it clinically acceptable?" "It is the quality of service not the quantity which is important." "I won't break the law." (eg. Medicines Act 1968) "I would bend local rules if it does not affect the patient or standard of service." confirmed this view. Individual views expressed were: "At the end of the day I still have to manage the department. I should bear this in mind in reaching a decision." And another respondent: "I try to avoid this situation. I keep ahead of conflict. We innovate. We develop 5 year programmes. We use participative management. In that way we avoid conflicts before they have built up."

Coming through particularly strongly in these discussions was concern for the patient (highly important on ENGLAND

concepts) and a moralistic approach in ENGLAND's terms. This ties in with the ENGLAND data which showed 43.7% of the pharmacists surveyed to be moralistic in orientation. (Largest group.)

Question 6. If you chose to resolve the conflict in favour of the professional viewpoint what sanctions could be used against you?

The way in which conflicts are resolved or not resolved is to some extent a function of what sanctions are or might be applied. Question 6 was designed to see if sanctions were an issue for pharmacy managers and if used what form they took.

Answers

This question presented difficulty for the respondents. They had to think hard. It became clear "sanctions" as such was not a prominent feature of their working situation but rather something that was there in the background when they were reminded about it. As a DPhO said: "I do not feel there are sanctions. If we are in "dispute" we would talk it over and the other person would respect my professional point of view."

When pinned down the possible range of sanctions which might be used were given as:

A "telling off"

Be reported to their boss

The withholding of co-operation

Making attendance at conferences etc. difficult

Disciplinary procedures would be invoked

This latter point was an important one because it was always qualified. Qualifications took the form of: "It would have to be really serious - only if it had come to a head involving professional negligence would disciplinary action be invoked." or "Administrators do not press professionals if good arguments are put up. On many occassions it would be very hard to prove anyway." (Due to the complexity of the situations.)

One of the more telling comments was by a DPhO who said: "Sanctions are not used where there is conflict. What tends to happen is that there is a professional negotiation with some sort of compromise as an outcome." The same person said: "Decisions tend to emerge over time in the NHS from inter-actions between people. We do not sit down and make rational immediate decisions." Discussion of this statement with the individual made it clear he was contrasting it with industry. In industry if there was conflict the Managing Director or Departmental Head would weigh up the situation and make a decision. In the NHS this rarely happens. Much more usually decisions over conflicts are resolved by ongoing discussions between the parties over sometimes quite a lengthy time scale. This leads to one party influencing the other and resolving the conflict. Or, for various reasons the conflict disappears because either or both parties decide to drop the issue that had been causing the trouble.

CHAPTER 11

THE FINDINGS OF THE RESEARCH

The findings of the research are described and discussed in this chapter. Initially each hypothesis is examined in turn and other findings arising from the research follow. Speculation as to the future concludes the chapter together with comments which may assist other researchers who may wish to take the study a stage further. The findings are brought together briefly in Chapter 12 with a Summary and Conclusions.

HYPOTHESES

1. Hospital pharmacists who hold both managerial and professional responsibilities will tend to be drawn into situations of conflict between their attitudes and values as managers and as professionals.

Chapters 1, 3 and 9 referred to the managerial responsibilities of hospital pharmacists. It was stated that the RPhO, APhO, DPhO, Principal Pharmacist and Staff Pharmacist posts are considered to be the management grades. The RPhO has been excluded from this research as he is not the direct line manager of APhO's and their staff. The Staff Pharmacist has also been excluded as his managerial responsibilities are very limited in nature and scope compared with his more senior colleagues. This leaves the group of hospital pharmacists who hold both managerial and professional responsibilities as the APhO's, DPhO's and Principal Pharmacists.

Those people who occupy the above managerial posts are qualified pharmacists who have taken part in the professional

socialisation process as they moved up the career ladder. The fact that they are more professionally orientated than their more junior colleagues is evident from their degree of professionalism as measured by HALL's scale. (See Table 13.) The more senior the grade, the higher the degree of professionalism. Thus the most senior managers hold the "most professional" attitudes and values.

The evidence collected from the interviews described in Chapter 10 illustrates that conflict does exist for this group in spite of individual denials by a minority of the group. (Two out of fourteen.) The conflict may be due to a variety of causes but the main ones identified were:

1. Pressures by the Central Government to contain the escalating cost of drugs.
2. Self-generated pressures to contain the escalating cost of drugs.
3. Pressures by more junior staff (Staff Pharmacists in particular) to improve the professional level and standards of service.
4. Self-generated pressures to improve the professional level and standards of service.
5. Professional loyalty to professional colleagues to support them during the development of extensions to the service. eg. Health Centres.
6. Action by members of the pharmaceutical industry.
7. Clashes between professional and managerial standards over quality control.

That they "will tend to be drawn into situations of conflict" follows from the statements at interviews such as "we now accept* we are managers". In the view of the respondents', because management is about effectiveness and efficiency (see Chapter 5), conflict with other professionals and administrators will follow as each group strives to protect its own interests, in situations of shortage of resources of all types, or insist on its' professional independence. Further evidence to support this view is given in Chapter 10 where the concept of Organisational Efficiency is demonstrated to be very important for all grades.

Since the pharmacists behaviour is affected by their professional and managerial attitudes and values it follows the hypothesis is demonstrably true.

2. The conflicts referred to in hypothesis one will be intensified as a result of the implementation of the NOEL HALL Report and the Re-organisation of the Health Service.

The conflicts between managerialism and professionalism are not new. Many writers such as GOULDNER (1957) have written previously about such conflicts. The work of GROSS et al. (1974) is another example. What is claimed to be new, in this hypothesis, is the intensification of such conflicts since the NOEL HALL Report and the Re-organisation of the Health Service. Questions 1 and 2 of the interview scedule were planned to obtain facts on this issue.

The detailed points are given in Chapter 10. As all but one of the managers interviewed had hospital pharmaceutical experience both before and after NOEL HALL they were able to

* Author's underlining

make comparisons. It was clear from their answers that managers post NOEL HALL were much more conscious of their management responsibilities which had become a more conscious part of their behaviour as a result of changed attitudes and values. Not only was this so, but the management concerns of effectiveness and efficiency were pervasive in their actions. Management had become an operative concept for them. The period 1975/1976 onwards was consistently identified as a turning point. It seemed three factors accounted for this. First, the NOEL HALL proposals had been implemented, introducing grades whose main responsibility was that of "managing". Secondly, the upheaval of Health Service Re-organisation in 1974 had reinforced the NOEL HALL principles and by 1975/1976 the service was settling down. Thirdly, the national economic situation had deteriorated and after several years of financial expansion the tide had changed and the first of a number of financial cut-backs was introduced. The effect of these three together was to intensify the need to be concerned with effectiveness and efficiency with a resultant growth in the number of conflicts.

Two conflict themes emerged from the discussions as areas of intensification. The first was the result of constant pressures to contain the escalating drug costs. The second related to conflicts over shortage of resources resulting from pressures to improve the professional service. Examples of this were the introduction or extension of a 24 hour residency service, the development of ward pharmacists or replacement of equipment. All three examples require

additional financial resources which are in short supply. Hence conflict arises with other professional groups (eg. Doctors) who feel their demands are of a higher priority.

The evidence of the interviews seemed conclusively to support the hypothesis. It was confirmed by thirteen of the fourteen respondents at interview.

3. Senior pharmacy managers (APhO's, DPhO's and Principal Pharmacists) reduce their professional attitudes and values in favour of managerial attitudes and values as a way of coping with conflict.

GROSS et al. (1974) state that they "have shown that when confronted with a role conflict position incumbents adopt different resolution techniques". One possible way in which senior pharmacy managers could cope with conflict is to reduce their professional attitudes and values in favour of managerial attitudes and values. Thus when faced with situations where there is conflict between their professional attitudes and values they would give greater weight to the managerial aspects of the decision making at the expense of their professional attitudes and values. At the outset of the research the writer believed this to be true as a generalisation in relation to senior pharmacy managers. Subsequent examination of how senior pharmacy managers deal with conflict indicates the hypothesis is not true for the generality of senior pharmacy managers.

If the hypothesis were true one would expect to find that the professional attitudes and values of senior pharmacy managers would be reduced compared with the more junior grades of Staff Pharmacist, Basic Grade Pharmacist and Pre-Registration Student. Measurement of the professional attitudes and values by means of the HALL scale demonstrates this is not so. (See Table 16.) The reverse seems to be the case. There is an increase in professionalism with grade.

The supportive professional environment of hospital pharmacists leads to an increase in professionalism as measured by HALL's Professional Inventory Analysis. If this is the case, is it true that senior pharmacy managers adopt managerial attitudes and values? It had been anticipated by the researcher that measurement of managers attitudes and values as measured by ENGLAND's PVQ questionnaire would enable these facts to be examined. As was explained in Chapter 10 the results were disappointing in that they did not discriminate adequately between individuals. A number of pointers emerged for futher investigation. More useful evidence emerged from the interviews. At the end of the series of interviews it was very clear in the researcher's mind that senior pharmacy managers now saw themselves as managers. This is best illustrated by the reply of one of the APhO's in relation to Question 5. "I am a manager first and a pharmacist second. I would give priority to the management considerations in the medium or long-term, provided it was in the patient's interest."

Many of those interviewed obviously took a pride in their managerial achievements and gave numerous illustrations.* Thus it emerged that senior pharmacy managers saw as their prime task the management of their function. There was frequent reference back to the pre- NOEL HALL days when they argued pharmacy managers did not take their management responsibilities so seriously.

From this discussion a further finding can be stated. It is that the adoption of managerial attitudes and values

* See Chapter 10 for examples.

by APhO's, DPhO's and Prinicpal Pharmacists has not led to a decrease in professionalism.

If senior pharmacy managers hold both professional and managerial attitudes at one and the same time how can this be explained and how does it affect their dealings with conflict? The work of UTA GERHARDT (1975) throws some light on this situation. In examining how vocational guidance staff in a federal German agency deal with conflict she posits the view that there can be a "duality of bureaucratic and professional values". Indeed, "their" (vocational guidance staff) "occupational outlook includes professional as well as bureaucratic thinking". This seems to be the case with senior pharmacy managers. As professionals they have acquired professional attitudes and values as they progressed in their pharmacy careers. When they become pharmacy managers they add to their professional attitudes and values managerial attitudes and values without reduction of the professional aspects. Thus a duality of values is developed. In this discussion management and bureaucracy have been used as inter-changeable terms since bureaucracy is a particular form of management organisation and it is generally recognised that the Health Service is a bureaucracy.

A major point made by UTA GERHARDT is that a "situated role" may emerge in a bureaucratic setting. The term "situated role" was first introduced by GOFFMAN (1961). He described it as "a bundle of activities visibly preformed before a set of others and visibly meshed into the activities these others perform". The answers to questions 2, 5 and 6

relate to this idea. In discussion of question 6 in Chapter 10 a DPhO was quoted as saying: "Sanctions are not used where there is conflict. What tends to happen is that there is a professional negotiation with some sort of compromise as an outcome". "Decisions tend to emerge over time in the NHS from inter-actions between people. We do not sit down and make rational immediate decisions." The point was made that where conflicts arose there tended to be many people involved. eg. Discussions concerning control of escalating drug costs would involve pharmacists, doctors, nurses, finance staff, supplies staff and hospital administrators. Since in a situation such as this there was no one person or group of people with authority to make unilateral decisions, what would happen would be a series of professional negotiations, over a time period, ending usually in a compromise. Thus the situation they worked in became the major influence determining the way in which possible conflicts were dealt with. GROSS et al. (1974) describe "relationships among the perceived legitimacy of the expectations, the perceived sanctions resulting from non-conformity to them, the orientation of the individual to these legitimacy and sanctions dimensions, and his behaviour". Taking each in turn the following points are made:

Legitimacy dimension

Actors are predisposed to conform to legitimate expectations. Actors are predisposed to avoid conforming to illegitimate expectations. Failure to conform will result in negative internal sanctions.

Sanctions dimension

If failure to conform will result in the application of strong negative sanctions then the actor is predisposed to conform.

Orientation dimension

Individuals may be differentiated according to their primacy of orientation. There are three types: Moral, Expedient and Moral-Expedient.

The Moral Orientation "places stress on the right of others to hold the expectations he perceives they hold for him and de-emphasises the sanctions he thinks will be applied to him for non-conformity to them". The Expedient Orientation "gives priority to the sanctions over the legitimacy dimension of the expectations perceived as held by others. Such a person is primarily concerned with minimising the negative sanctions involved in the role conflict situation". The Moral-Expedient Orientation "takes both dimensions relatively equally into account and behaves in accordance with the perceived "net balance" of the two dimensions".

If senior pharmacy managers behave in accordance with the situated role how do they relate to GROSS's theory? Interview questions 2, 5 and 6 were designed to help increase our understanding. Examination of the answers and comments on these questions in Chapter 10 leads to a number of points in relation to GROSS's dimensions. Firstly legitimacy - Legitmate expectations were perceived by senior pharmacy managers. For example, it is the Doctor's right to prescribe not the pharmacists. It would be quite wrong to challenge this and the Doctor's expectations must be

upheld. The senior pharmacy managers' unwillingness to break the law came through too. "I will bend the rules but I will not break them. I will not break the law."

Secondly sanctions. As was stated in Chapter 10, sanctions as such are not a prominent feature of a senior pharmacist manager's working situation. Follow up questions made it clear they were aware the sanctions were there in the back-ground but would only be imposed if the non-compliance became serious. Sanctions did not seem to play a major part in dealing with role conflict. It should be made clear at this point that the sanctions being discussed are formal sanctions. It is these formal sanctions that would "only be used if the situation became very serious" as one APhO put it. Further discussion revealed more concern with informal sanctions such as failure to co-operate or com-municate. The respondents had difficulty in recalling typical incidents of this type (supporting the view that sanctions, of a formal or informal nature, are not a major feature) but where they could be recalled, they related to conflict with either medical or financial staff. Thus it would appear that formal sanctions are rarely used but informal sanctions may be used on occasions when there is serious conflict. eg. With Doctors over containment of escalating drug costs.

Thirdly the Orientation dimension. GROSS et al. suggest that managers differ in their 'orientations'; some may be described as 'Moral', some as 'Expedient' and some as 'Moral-Expedient'. The views of the senior pharmacy managers interviewed indicated they either resolved conflict in a

Moral way or less frequently in a Moral-Expedient way. Expediency in deferring to formal sanctions was, as we have indicated, barely relevant. Where conflicts led to informal sanctions being applied expediency would sometimes be considered. Nevertheless, the theme of Moral Orientation came through very strongly, and is illustrated by statements such as "I should do what is right for the patient". Interestingly this Moral orientation links with the ENGLAND data. Of the total sample surveyed 43.7% were classified MORALISTIC - the biggest percentage. (See Table 20.)

From the foregoing it can be concluded that the clash between managerial and professional orientations mainly turns out to be a convergence of managerial and professional values which is resolved by professional negotiation to a compromise often over a long time. In undertaking this negotiation the senior pharmacy managers tend to behave in a Moral or Moral-Expedient way.

A final feature for comment is the difference in PIA scores between men and women. (See Table 16). This may be accounted for by a number of possible explanations. It may be that we are seeing the "done very well syndrome". ie. Women who reach DPhO/Principal Pharmacist level are at the top of their effective career structure. To achieve this level is to be seen to "have done very well" and promotion beyond this point is not normally expected. At this level they achieve job satisfaction and do not seek further promotion. Furthermore, the contact with patients still remains at this level whereas at APhO level the job

is seen as "wholly managerial" in nature and therefore unattractive. An alternative explanation is that women, to get into the profession at all, have to be more highly professionally orientated or conscious of the need to develop professionalism. On reaching basic grade posts there is a tendency for equal socialisation but it requires greater professional orientation for women to rise in the profession. A third possible explanation is that the less professionally orientated women tend to leave the profession after a few years giving up the idea of a long term career in pharmacy. If they do return at all, after bringing up a family etc., it is to a junior post. They do not by then aspire to career advancement. These seem areas worthy of further investigation.

4. Senior pharmacy managers will have pragmatic orientations and will hold as important values such as high productivity, organisational stability, pharmacy efficiency and service maximization.

One of the major changes introduced by the NOEL HALL Report was the introduction of a management strucutre with an increased emphasis on management responsibilities. The officers in the roles of APhO, DPhO and Principal Pharmacist have as their major responsibility the management of their function. DRUCKER (1967) suggests effective managers have practical outlooks. They also value concepts such as effectiveness, efficiency, high productivity etc. As senior pharmacy managers are required to act for the main part as managers it was the writer's view that the above hypothesis

is true.

ENGLAND (p.10) describes the value profile of the "successful" USA manager. The concepts listed all occur in the PVQ questionnaire. It was anticipated that, if the hypothesis was true, more pragmatic managers would appear in the senior group than in the junior gorup of grades; and secondly, the senior grades would rate more importantly concepts such as high productivity, organisational stability, pharmacy efficiency and service maximisation.

In Chapter 10 comments are made on the orientation and values of the sample. Although there are indications that the more senior managers are as described in the hypothesis the results are too randomly distributed to support it. It does seem possible that senior pharmacy managers tend to have pragmatic or moralistic orientations rather than affect or mixed orientations. It also seems likely that they value highly the concepts of high productivity, organisational stability, pharmacy efficiency and service maximisation but are not the sole group who rate these concepts highly. Individuals in the more junior grades may do so too. These aspects seem worthy of more detailed study.

5. Pharmacists occupying the senior management grades will be more managerially orientated than those occupying the more junior grades.

As the major activity of the senior pharmacy grades of APhO, DPhO and Principal Pharmacist is that of management those promoted into those grades either need to be managerially orientated in advance of promotion or need to

acquire managerial attitudes, values and skills after appointment. Particularly important are the concepts of effectiveness and efficiency. The interviews indicated senior pharmacy managers do hold these concepts as important and this is confirmed by the PVQ data. What is not demonstrated is that they hold the concepts more strongly than do the junior grades. From the PVQ data it would appear that concepts such as efficiency are valued just as much by Pre-Registration Students as they are by APhO's at the other end of the spectrum of grades. It would seem that the explanation for this is that the senior managers have the opportunity to express these values in operation whereas the Junior grades can only express them as values. The hypothesis as stated does not seem to be borne out by the evidence. It could be more appropriately re-worded "Pharmacists occupying the senior management grades will be managerially orientated and will express their managerial values in operation."

Hospital Pharmacy in the Future - Possible Conflict Areas

The hospital pharmaceutical service is a dynamic system constantly adapting to changes brought about as a result of internal developments and pressures from the environment in which it operates. It would seem probable from this research that the conflict between professional and managerial values is likely to increase both in intensity and in volume over the next decade. For this reason comments related to these possible developments are given in the hope that they may be of use to future researchers.

The most immediate event on the horizon is the forthcoming Re-structuring of the National Health Service due to be introduced as from the 1st April 1982. The Government's proposals for the structure and the management of the service were announced in HEALTH CIRCULAR (80)8. Many senior pharmacy managers are very uneasy about the proposals. This became clear as a result of interview question 4. "How do you view career opportunities post NOEL HALL? Especially for the Senior Grades? (Principal upwards.)" The detailed replies are given in Chapter 10. From these replies it was universally recognised the career opportunities had been "vastly improved" post NOEL HALL. (With reservations about specialists in Drug Information and Quality Control where prospects were limited.) However, in almost every case there was an unsolicited comment, "I am not so sure about the future". When prompted to explain why they felt this respondents would say they felt the forthcoming Re-structuring would undo a great deal of the "good work" done by the NOEL HALL Report. The basis for these feelings is the Governments decision (HC (80)8 paragraph 1) that "all area health authorities and health districts in England will, subject to the enactment of the Health Services Bill, be replaced by one or more district health authority(ies), each served by one team of officers." The effect of this is to remove one management tier from the management structure (ie. AHA) and replace it by a newly established district health authority. More importantly, as far as senior hospital pharmacy managers are concerned, it is the decision in the Circular (paragraph 26) that "it will be for DHA's, in

shadow or substantive form, to decide what appointments to make and determine arrangements for accountability". This is in accordance with the Government's decision to delegate decision making to as low a level in the organisation as possible. Elsewhere (paragraph 14) in the Circular guidance is given that "Authorities should take full account of the experience during recent years of the many ways in which the quality of service has been improved" (for example, the follow-up to the NOEL HALL recommendations in relation to pharmaceutical services)." This view is also favoured by the profession itself. (See PHARMACEUTICAL JOURNAL, March 22, 1980 p342-344.) Nevertheless, because it is not obligatory many of the senior pharmacy managers are of the view some DHA's will not follow this guidance. If this view is correct (and only time will tell) then there will be less top posts and radical changes for DPhO's and Principal Pharmacists. They fear loss of opportunities for promotion and loss of status. This will have direct effects on their job satisfaction and long term career prospects.

A second concern expressed during interviews related to the cut back on finance that has occurred particularly over the last five years. With the current economic situation it seems that operating the service in a climate of financial stringency is likely to continue into the foreseeable future. With many pharmacists keen to improve the professional quality and standards of their work, as part of their continuing striving for full professional status, conflict arises as the resources to meet these needs are

either unavailable or limited. Not only does pharmacy find itself competing, with other disciplines and professions for very limited development funds, but also with itself. eg. Improvement in Quality Control versus improvement in Dispensary. With demand on the Health Service constantly increasing [eg. More Out-Patient attendances per year, more In-Patients etc. without corresponding increases in staffing], Pharmacists find that although they can put forward well supported cases for more funds, for extra staff, equipment, the up-grading of departments etc., the money is just not available. As they feel that their cases are sound and well proven, this leads to conflict between professional and managerial attitudes and values over decisions as to priorities and allocations of scarce resources. This will continue in the future.

The third area identified concerned professional developments that are currently occurring within the hospital pharmacy service. The development of Ward Pharmacists and the improvement of the Drug Information Service with the eventual appointment of Consultant Pharmacists are the two usually mentioned. Pharmacists are very concerned with developing their profession further. In Chapter 10 I referred to FULMER and RUE [1973] who suggested that in the future, a demonstration of competence will be a major consideration for any manager who is to succeed. If pharmacists are to advance their profession they need to demonstrate their competence at more advanced levels. Ways of demonstrating increased competence are to develop the concepts of Ward

Pharmacists or Consultant Pharmacists more widely or to demonstrate effective and efficient management activity. That these developments are occurring more widely than just in the UK can be illustrated by a short quotation from USA writers. BARNETT R. L., BUTLER J. L., DeLUCA P. P. and STRAUS R. (1976) state "pharmacists must seek to improve their individual and collective image with other health professionals and the public. This improved image can come through demonstration of competency and through showing a willingness to participate in total health care." How senior pharmacy managers participate in demonstrating their competence in future is another area for future research.

CHAPTER 12

SUMMARY AND CONCLUSIONS

This chapter summarises the work covered by this thesis and brings together the findings and conclusions. It is set out in three parts:-

The Problem

Methodology

The Findings

1. THE PROBLEM

Chapter 1 described the problem in detail. In essence the concepts of professionalism and managerialism among senior hospital pharmacists are examined and hypotheses generated concerning the inter-relationship of these concepts and how pharmacists, as members of an emerging profession, develop professional and managerial values and attitudes.

2. METHODOLOGY

Initial desk research into the literature was followed by a Pilot Survey, within one Area Health Authority, to test out possible research instruments. Following the Pilot Survey revised questionnaires incorporating HALL's Professional Inventory Analysis and ENGLAND's Personal Value Questionnaire, as measurement instruments, were distributed to all qualified pharmacists within one Health Region. The subsequent analysis of this data led to some of the findings and also provided pointers for a series of semi-structured interviews which provided further data. This completed the field work which is analysed and commented on in Chapters 9, 10 and 11.

Examining each aspect of the methodology in turn, what did I learn that may be of assistance to other researchers? The study started with the initial desk research (and towards the end the automated literature search). The greatest difficulty encountered here was that of semantics. In order to enter indices it was necessary to identify the key words. This was not always easy as was made clear in Chapter 9. For example, 'management' may be found under headings such as 'management', 'administration', 'public administration', 'bureaucracy', and 'manager'. Using these words further problems could arise. For example, the word 'administration' would give access to some relevant references but also many irrelevant references concerned with the administration of drugs. Whilst some trial and error approach is probably necessary in the early stages the more specific one can be in defining relevant terms the easier access to the literature is likely to be. The key words I found most useful are listed in Chapter 9.

If anything, the Pilot Survey went much too smoothly. It was administered to a selected small sample by an Area Pharmaceutical Officer and therefore I was shielded from difficulties which arose subsequently with groups such as the pharmacy lecturers. These difficulties have been written up fully in Chapter 10 since they provide further evidence on pharmacists values and attitudes. Nevertheless, the Pilot Survey met its objectives. (See Chapter 8.)

The HALL Professional Inventory Analysis instrument proved to be suitable for measuring the pharmacists degree

of professionalism. Analysis too, was very straight forward and on the whole respondents had little difficulty in completing it. The most constant comment made by respondents (a minority) was "it's too repetitive in places". Since the PIA used was SNIZEK's version, HALL's original questionnaire had already been reduced from 50 questions to 25. The query was raised in my mind - could it be reduced further without any loss of validity. This appears to be worthy of further investigation.

ENGLAND's PVQ measuring instrument proved to be disappointing in this situation. It failed to discriminate adequately between the different grades of pharmacists and comparisons with the international samples added little to our knowledge. Some pharmacists found it difficult to complete and it was very complex and time-consuming to analyse. It did provide pointers for further investigation by interview. All in all I would not recommend the ENGLAND instrument for use by other researchers with pharmacists.

Of the 14 respondents who took part in the semi-structured interviews three were known to the researcher personally and their co-operation was therefore expected. The other 11 were strangers initially but rapport was quickly established in each case and all 14 seemed to enjoy the interview process and frequently "volunteered" information without the interviewer having to "drag it out" of them. In only one case was major concern expressed over confidentiality but constant re-assurances enabled even this respondent to "open up" when discussing difficult conflict situations

involving personalities/status as well as the rational aspects of the conflict. After completion of the interviews I came to the conclusion it was a mistake to only interview the APhO who was involved in the Pilot Survey. Semi-structured interviews with some other members of the Pilot Survey sample might have led to a realisation of the unsatisfactory nature of the ENGLAND instrument at a much earlier stage.

3. FINDINGS

The findings of the research fall into two groups. First those findings directly related to the Hypotheses listed in Chapter 1 and secondly, those findings that add to our knowledge of the work of senior pharmacy managers. These two groups of findings will be examined in turn.

Hypotheses

Hypothesis 1.

Hospital pharmacists who hold both managerial and professional responsibilities will tend to be drawn into situations of conflict between their attitudes and values as managers and as professionals.

In Chapter 3 the point was made that prior to the NOEL HALL Report, the management of the pharmaceutical service was not as effective as was desirable, in view of the developing requirements of the service. The Chief Pharmacists and their Deputies (who were the managers) saw themselves primarily as Heads of Professional Departments and saw as their first priority the maintenance of high professional standards with management very much in second place. The

effect of the implementation of the NOEL HALL Report was to change this position. Whilst senior pharmacy managers continue to strive for increased professionalism [as demonstrated by the PIA data and interviews] they have, at the same time, accepted the primacy of their managerial responsibilities. This gives rise to a duality of roles as professional head and manager. Their objectives in these different roles [held simultaneously] may well be different and therefore conflict arises. [See Chapter 10 for examples].

Some of this conflict may be self-generated as they work to improve their professionalism and effectiveness and efficiency at the same time. On other occasions they will tend to be drawn into conflict situations as the result of the actions of others. eg. Pressure from Central Government to contain drug costs or by Doctors concerning drug availability.

The data collected supports Hypothesis 1.

Hypothesis 2.

The conflicts referred to in hypothesis 1 above will be intensified as a result of the implementation of the NOEL HALL Report and the Re-organisation of the Health Service.

The research supported Hypothesis 1. The question raised by this second hypothesis is the degree to which conflicts occur. Since all but one of those interviewed had hospital pharmaceutical experience both before and after the NOEL HALL Report, it was possible to make comparisons. All agreed that there had been a marked increase in emphasis

and time devoted to management. Because the implementation of the NOEL HALL Report (1972, 1973) was followed so quickly by the Re-organisation of the Health Service in 1974, respondents found it almost impossible to separate the two in relation to the increased number of conflicts they recognised. It seemed that the combination of both together had had the effect of intensifying the conflicts. It would therefore appear that Hypothesis 2 is correct.

A further factor was found to be a contributory cause of the intensification of the conflict. This was the increased pressures to make the Health Service (and the pharmacy service as a major cost centre) more effective and efficient in a time of financial stringency. Faced with a situation of constantly increasing demands for health care and severely limited finances, the Central Government has been forced to take measures to control costs and make the service more effective and efficient. Initial attacks were made on the ancillary (manual) and administrative and clerical staff areas to reduce costs but as these areas have been squeezed dry attention has turned to other areas. Pharmacy as a big spender (the drugs bill for a single Area Health Authority is typically £2 million per year at present) was a natural next target and since 1976 has had the spotlight increasingly turned on it. The forthcoming Re-structuring of the Health Service (April 1982) seems likely to continue this process.

Hypothesis 3.

Senior pharmacy managers (APhO's, DPhO's and Principal Pharmacists) reduce their professional attitudes and values

as a way of coping with conflict.

The general conclusion is that the above hypothesis is not true for the generality of senior pharmacy managers. It was not found to be the case within the sample surveyed. It was found:

1. That senior pharmacy managers are high on professionalism compared with more junior grades.
2. The supportive professional environment of hospital pharmacists leads to an increase in professionalism as measured by HALL's Professional Inventory Analysis.
3. The adoption of managerial attitudes and values by APhO's, DPhO's and Principal Pharmacists does not lead to a decrease in professionalism.
4. The occupational outlook of senior pharmacy managers includes professional as well as managerial (bureaucratic) thinking.
5. The clash between managerial and professional orientations mainly turns out to be a convergence of managerial and professional values which is resolved by professional negotiation to a compromise over a long time. In undertaking this negotiation the senior pharmacy managers tend to behave in a Moral or Moral-Expedient way.
6. There are significant differences in PIA score between men and women which could be usefully further researched.

By way of explanation of this hypothesis it is relevant to mention something of the researchers' background. A Health Service Administrator for ten years the researcher had frequent contact with pharmacists and pharmacy depart-

ments. In particular he carried out detailed studies of management problems in some hospital pharmacies. This gave him a sound working knowledge of the operation of the hospital pharmaceutical service. For the past ten years he has been teaching general management to Health Service personnel including pharmacists. Since his work is carried out on a National basis the range of staff met is very wide. In the early 1970's with the implementation of NOEL HALL in sight, his advice was sought by some senior pharmacists who clearly could foresee the increasing emphasis on management as a result of the implementation of the NOEL HALL Report. They wished to prepare themselves for these forthcoming changes and wished to learn more about management and how they should go about this. The researcher had always been aware of the high degree of professionalism of pharmacists and their eagerness to advance their profession. It appeared to him, from his knowledge and experience of management in the Health Service in general, that if greater priority were given to the management aspects of decision making rather than the professional aspects conflict would ensue. Since faced with conflict actors seek to resolve or reduce the conflict in various ways he formed the view that the senior pharmacy managers would reduce their professional attitudes and values as a way of coping with the conflict hence the hypothesis as stated. As has been stated, the research did not uphold the hypothesis and it illustrates the ease with which one can jump to the wrong conclusion.

The final feature arising out of this hypothesis which

is worth commenting upon is the question of professional negotiating. This was discussed fully in Chapter 11 and was seen to be the major way in which conflict between professional and managerial attitudes and values was handled. Because of this it seems to identify "professional negotiating" as a training need for senior pharmacy managers as it is essentially a skill that needs practice and training to develop.

Hypothesis 4.

Senior pharmacy managers will have pragmatic orientations and will hold as important values such as high productivity, organisational stability, pharmacy efficiency and service maximization.

The data did not prove this hypothesis conclusively. It seems possible that senior pharmacy managers tend to have pragmatic or moralistic orientations rather than affect or mixed orientations. It also seems likely that they value highly the concepts of high productivity, organisational stability, pharmacy efficiency and service maximisation, but are not the sole group who rate these concepts highly. Individuals in the more junior grades may do so too.

Since the above concepts are very important in relation to the increasing pressures to make the service more effective and efficient they seem to be concepts worthy of more detailed study.

Hypothesis 5.

Pharmacists occupying the senior management grades will

be more managerially orientated than those occupying the more junior grades.

The hypothesis as stated was not borne out by the evidence. Instead it was found that pharmacists occupying the senior management grades will be managerially orientated and will carry through their managerial values into action. In contrast it was found that although the more junior grades also held managerial values they were intended or adopted values and not carried through into action since their roles did not require them to do so.

General Findings

The second group of findings relate to our increased knowledge of the work of senior pharmacy managers and their colleagues and give indicators for the future. They relate to seven aspects, each of which will be discussed in turn.

1. Professionalisation and Professionalism

Chapter 2 described the historical and social setting of pharmacy and Chapter 4 Professionalisation and Professionalism. Comment has been made elsewhere on the PIA data and the fact that pharmacy is seen by many writers as an emerging or semi-profession. Evidence to show that the pharmacy profession is still striving for "full" professionalism arose from the interviews. Two specific examples to illustrate this are the moves towards Ward Pharmacists and Consultant Pharmacists. Each of these developments is seen as a move to improve effectiveness and efficiency but at the same time to improve the professions' standing. They were referred to in Chapter 11 and illustrate the continuing

professionalisation of pharmacy.

2. Management Emphasis

Chapter 3 brought out the point that the NOEL HALL Report was about the management of the pharmaceutical service. One of the findings of the research is that there has been a marked change in the attention paid to management over the last decade. The change has taken the form of:

1. An increasing awareness of their management responsibilities by senior pharmacy managers.
2. An increasing acceptance of their management responsibilities by senior pharmacy managers.
3. An increasing proportion of time is spent on management activity compared with professional and other activities.

The respondents made it clear that in their view this was a change that was here to stay and emphasis on the management of the service as opposed to its degree of professionalism was the form for the future. [This does not indicate that they themselves wish to move away from professionalism but rather that they work in a situation where the emphasis is on management.]

3. NOEL HALL Report and Re-structuring

A further finding of the research relates to the success of NOEL HALL. As reported in Chapters 10 and 11 the implementation of the NOEL HALL Report has led to substantial improvements in the pharmaceutical service. The improvements being in terms of the service provided, the career opportunities, and the effective and efficient management of the

service. However, the forthcoming Re-structuring of the Health Service as from April 1982 is seen by many pharmacists as being likely to undo much of the good that has been done by NOEL HALL. If in the event this is found to be true it will reduce career opportunities, job satisfaction and pharmacy service.

4. Resource Constraints

When the study commenced the Health Service was expanding with increasing finances being made available. The tide changed in 1975 and the evidence of the later part of the research is that whilst demand is still increasing the service operates within a period of severe financial constraint. This has had the effect of placing even more emphasis on effective and efficient management and the competition for very limited resources heightened the conlfict between professional and managerial values. This seems likely to continue.

5. Training

The research indicated that, as recommended by the NOEL HALL Report, management training for pharmacists was being undertaken. Training was taking place on both a uni-disciplinary and multi-disciplinary basis and consists of both course and on-the-job training. A further training need identified by the research was that of negotiation in a professional setting. No training is provided in this area at present. Senior pharmacy managers made it clear they would welcome such an initiative.

6. Male and Female Pharmacists

In Chapter 10 reference was made to the difference in PIA scores between men and women. Table 16 demonstrates that for this sample women have a higher PIA mean score than men but their scores are more widely spread. Other differences were identified, such as the fact that the more senior grades were predominantly occupied by men whereas many women enter the profession. The differences in career progression between men and women, and the reasons for their different paths, is an area for further research.

7. Assumptions of Researcher

The initial concepts of the researcher were based on his personal contact with senior hospital pharmacists. This led to the definition of the problem and the hypotheses listed in Chapter 1. Now that the research is complete I have learned to view the questions differently. I now see, that although people feel more conscious of the role requirements of the managerial aspects of their work, there is no necessary conflict in their minds between the better management of resources and professional excellence. They appear to be compatible values. It may be that the financial screw has not been turned enough yet, but any automatic assumption of conflict is an over-simplification of the situation.

I also began with the assumption that the most useful evidence would come from controlled methods of exploration. The conduct of this research has led me to value more the sources of knowledge gained from experience as illustrated

by the results of the semi-structured interviews.

8. Future Research

So far as I am aware this research has broken new ground in that it has investigated an area hithertoo unresearched. The Department of Health and Social Security have not formally evaluated the NOEL HALL Report implementation and the successes it has achieved. With continuing pressures in the Health Service on effectiveness and efficiency, and the forthcoming Re-structuring of the Health Service, it can only be a matter of time before some evaluation of the hospital pharmaceutical service is carried out. To the author's knowledge one or two individuals are interested in carrying forward some of the ideas investigated in this study. I hope that the work described in this thesis will be of help to them.

Appendix 1.

HALL'S Professional Inventory Scale

The following questions are an attempt to measure certain aspects of what is commonly called "professionalism." The referent in the questions is your own profession. Each item then, should be answered in light of the way you yourself both feel and behave as a member of your particular profession.

There are five possible responses to each item. If the item corresponds VERY WELL [VW] to your own attitudes and/or behaviour, circle that response. If it corresponds WELL [W], POORLY [P], or VERY POORLY [VP], mark the appropriate response. The middle category [?] is designed to indicate an essentially neutral opinion about the item. Please answer ALL items in one fashion or another, making sure that you have NO MORE THAN ONE RESPONSE FOR EACH ITEM.

1.	I systematically read the professional journals.	VW	W	?	P	VP
2.	Other professions are actually more vital to society than mine.	VW	W	?	P	VP
3.	A person who violates professional standards should be judged by his professional peers.	VW	W	?	P	VP
4.	A person enters this profession because he likes the work.	VW	W	?	P	VP
5.	I make my own decisions in regard to what is to be done in my work.	VW	W	?	P	VP

6.	I regularly attend professional meetings at the local level.	VW	W	?	P	VP
7.	I think that my profession, more than any other, is essential for society.	VW	W	?	P	VP
8.	My fellow professionals have a pretty good idea about each other's competence.	VW	W	?	P	VP
9.	People in this profession have a real "calling" for their work.	VW	W	?	P	VP
10.	It is easier when someone else takes responsibility for decision making.	VW	W	?	P	VP
11.	I enjoy seeing my colleagues because of the ideas that are exchanged.	VW	W	?	P	VP
12.	The importance of my profession is sometimes over stressed.	VW	W	?	P	VP
13.	There really aren't any penalties for the person who violates professional standards.	VW	W	?	P	VP
14.	The dedication of people in this field is most gratifying.	VW	W	?	P	VP
15.	I don't have much opportunity to exercise my own judgment.	VW	W	?	P	VP
16.	I believe that the professional organization(s) should be supported.	VW	W	?	P	VP
17.	Some other occupations are actually more important to society than is mine.	VW	W	?	P	VP
18.	A problem in this profession is that no one really knows what his colleagues are doing.	VW	W	?	P	VP
19.	Professional training itself helps assure that people maintain their high ideals.	VW	W	?	P	VP
20.	I know that my own judgment on a matter is the final judgment.	VW	W	?	P	VP

21.	The most stimulating periods are those spent with colleagues.	VW	W	?	P	VP
22.	Not enough people realize the importance of this profession for society.	VW	W	?	P	VP
23.	A basic problem for the profession is the intrusion of standards other than those which are truly professional.	VW	W	?	P	VP
24.	It is encouraging to see the high level of idealism which is maintained by people in this field.	VW	W	?	P	VP
25.	The fact that someone checks your decisions makes this work easier.	VW	W	?	P	VP
26.	The professional organization doesn't really do too much for the average member.	VW	W	?	P	VP
27.	More occupations should strive to make a real contribution to society the way my own does.	VW	W	?	P	VP
28.	Violators of professional standards face fairly severe penalties.	VW	W	?	P	VP
29.	Although many people talk about their high ideals, very few are really motivated by them.	VW	W	?	P	VP
30.	When problems arise at work, there is little opportunity to use your own intellect.	VW	W	?	P	VP
31.	The real test of how good a person is in his field is the layman's opinion of him.	VW	W	?	P	VP
32.	Any weakening of the profession would be harmful for society.	VW	W	?	P	VP
33.	We really have no way of judging each other's competence.	VW	W	?	P	VP
34.	It is hard to get people to be enthusiastic about their work in this field.	VW	W	?	P	VP

35.	There is little autonomy in this work.	VW	W	?	P	VP
36.	Although I would like to, I really don't read the journals too often.	VW	W	?	P	VP
37.	The benefits this profession gives to individuals and society are underestimated.	VW	W	?	P	VP
38.	The professional organization is really powerless in terms of enforcing rules.	VW	W	?	P	VP
39.	Most people would stay in the profession even if their incomes were reduced.	VW	W	?	P	VP
40.	My own decisions are subject to review.	VW	W	?	P	VP
41.	Most of my own friends are not fellow professionals.	VW	W	?	P	VP
42.	It is impossible to say that any occupation is more important than any other.	VW	W	?	P	VP
43.	There is not much opportunity to judge how another person does his work.	VW	W	?	P	VP
44.	Most of the real rewards of my work can't be seen by an outsider.	VW	W	?	P	VP
45.	I am my own boss in almost every work-related situation.	VW	W	?	P	VP
46.	The profession doesn't really encourage continued training.	VW	W	?	P	VP
47.	If ever an occupation is indispensible, it is this one.	VW	W	?	P	VP
48.	My colleagues pretty well know how well we all do in our work.	VW	W	?	P	VP
49.	There are very few people who don't really believe in their work.	VW	W	?	P	VP
50.	Most of my decisions are reviewed by other people.	VW	W	?	P	VP

Appendix 2

LEICESTER POLYTECHNIC - HEALTH SERVICE MANAGEMENT UNIT

RESEARCH INTO PROFESSIONALISM AND MANAGEMENT IN HOSPITAL PHARMACIES by Michael Barnwell

I would like to collect information concerning some of your views concerning the hospital pharmaceutical service. To this end I have devised this questionnaire and I would be grateful if you could spare me twenty minutes or so to complete it. You need not show your name and the information you give will be treated as confidential and used for my research purposes only.

Professional Inventory

The following questions are an attempt to measure certain aspects of what is commonly called "professionalism". The area to be considered in the questions is your own profession of pharmacy. Each item should be answered in light of the way you yourself both feel and behave as a pharmacist.

There are five possible responses to each item. If the item corresponds VERY WELL (VW) to your own attitudes and/or behaviour, circle that response. If it corresponds WELL (W), POORLY (P), or VERY POORLY (VP), mark the appropriate response. The middle category (?) is designed to indicate an essentially neutral opinion. Please answer all items, making sure that you have NO MORE THAN ONE RESPONSE FOR EACH ITEM.

1.	I systematically read the professional journals.	VW	W	?	P	VP
2.	Other professions are actually more vital to society than mine.	VW	W	?	P	VP
3.	I make my own decisions in regard to what is to be done in my work.	VW	W	?	P	VP
4.	I regularly attend professional meetings at the local level.	VW	W	?	P	VP
5.	I think that my profession, more than ony other, is essential for society.	VW	W	?	P	VP
6.	My fellow professionals have a pretty good idea about each other's competence.	VW	W	?	P	VP
7.	People in this profession have a real "calling" for their work.	VW	W	?	P	VP
8.	The importance of my profession is sometimes over stressed.	VW	W	?	P	VP
9.	The dedication of people in this field is most gratifying.	VW	W	?	P	VP
10.	I don't have much opportunity to exercise my own judgement.	VW	W	?	P	VP
11.	I believe that the professional organisation[s] should be supported.	VW	W	?	P	VP
12.	Some other occupations are actually more important to society than is mine.	VW	W	?	P	VP
13.	A problem in this profession is that no-one really knows what his colleagues are doing.	VW	W	?	P	VP
14.	It is encouraging to see the high level of idealism which is maintained by people in this field.	VW	W	?	P	VP
15.	The professional organisation doesn't really do too much for the average member.	VW	W	?	P	VP
16.	We really have no way of judging each other's competence.	VW	W	?	P	VP
17.	Although I would like to, I really don't read the journals too often.	VW	W	?	P	VP

18.	Most people would stay in the profession even if their incomes were reduced.	VW	W	?	P	VP
19.	My own decisions are subject to review.	VW	W	?	P	VP
20.	There is not much opportunity to judge how another person does his work.	VW	W	?	P	VP
21.	I am my own boss in almost every work-related situation.	VW	W	?	P	VP
22.	If ever an occupation is indispensable, this is one.	VW	W	?	P	VP
23.	My colleagues pretty well know how well we all do in our work.	VW	W	?	P	VP
24.	There are very few people who don't really believe in their work.	VW	W	?	P	VP
25.	Most of my decisions are reviewed by other people.	VW	W	?	P	VP

Managerial Values

1. The following questionnaire is an attempt to measure certain aspects of managerial values. A number of different concepts are listed and in respect of each one you are asked to say:

   [a] Whether you rate it of high or low importance, and
   [b] In what sequence you would list the three descriptive terms, right, successful and pleasant in relation to the concept.

   Two examples of this follow:-

   As an example, take the concept, Patriotism. If you felt that it is of average importance, you would make a check mark in the middle box as indicated. If you felt that of the three descriptions [right, successful and pleasant] "right" best indicates what the concept means to you, you would write the number "1" next to "right". If the description "successful" least indicates what the concept means to you, then you would write the number "3" next to "successful", as shown in the sample below. Then you would place the number "2" next to the remaining description, in this case, "pleasant".

   For some concepts you may feel none of the descriptions apply. For example, you may feel that for the concept Dishonesty, neither "pleasant", "right" nor "successful" indicates the meaning to you. If you have this trouble, you may begin by deciding which description least indicates the concept's meaning to you. For example, for the concept Dishonesty if you felt that "right" least indicates the concept's meaning to you, you would write the number "3" next to "right", and so on for the remaining descriptions as shown in the example.

   Example

   Patriotism

   High Importance | | X | | Low Importance

   1 Right
   3 Successful
   2 Pleasant

Dishonesty

High Importance | | X | | Low Importance

3 Right
1 Successful
2 Pleasant

You are now asked to complete the questionnaire that follows. Please answer all concepts.

1. Goals of Hospital Pharmacy

High Productivity

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Staff Welfare

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Organisational Stability

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Service Maximisation

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Pharmacy Efficiency

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Social Welfare

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Organisational Growth

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

2. Groups of People

Staff

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Patients

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

My Co-workers

High Imp.  Low Imp.

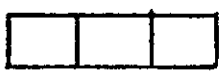
Right
Successful
Pleasant

My Boss

High Imp.  Low Imp.

Right
Successful
Pleasant

Managers

High Imp.  Low Imp.

Right
Successful
Pleasant

AHA Members

High Imp.  Low Imp.

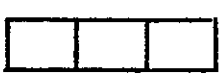
Right
Successful
Pleasant

My Subordinates

High Imp.  Low Imp.

Right
Successful
Pleasant

Pharmacy Technicians

High Imp.  Low Imp.

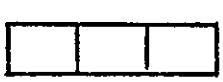
Right
Successful
Pleasant

My Hospital

High Imp.  Low Imp.

Right
Successful
Pleasant

Me

High Imp.  Low Imp.

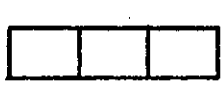
Right
Successful
Pleasant

Unions

High Imp.  Low Imp.

Right
Successful
Pleasant

Clerical Staff

High Imp.  Low Imp.

Right
Successful
Pleasant

Ancillary Staff

High Imp.  Low Imp.

Right
Successful
Pleasant

3. Ideas Associated with People

Ambition High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Ability** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Obedience High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Trust** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Aggressiveness High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Loyalty** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Prejudice High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Compassion** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Skill High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Co-operation** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Tolerance High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Conformity** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant

4. Personal Goals of Individuals

Leisure

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Dignity

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Achievement

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Autonomy

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Money

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Individuality

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Job Satisfaction

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Influence

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Security

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Power

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Creativity

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Success

High Imp. [ ][ ][ ] Low Imp.

Right
Successful
Pleasant

Prestige

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

5. Ideas about General Topics

Authority

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Caution

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Change

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Compromise

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Conflict

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Emotions

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Equality

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Risk

High Imp. [ ] [ ] [ ] Low Imp.

Right
Successful
Pleasant

Please tick appropriate space or enter appropriate detail

1. Sex

Male	
Female	

2. Grade

		*
Pre-Registration student		
Basic grade Pharmacist		
Staff Pharmacist		
Principal Pharmacist		
District Ph.O		
Area Ph.O		

3. No. of years Registered as a Pharmacist

Pre Reg year	
0 - 2 years	
3 - 5 years	
6 - 10 years	
11 - 15 years	
15 years and over	

* Please enter length of service in present grade in years and months in this column. Only present grade need be completed.

4. Your age

_____ 20 - 29 _____ 45 - 49

_____ 30 - 34 _____ 50 - 54

_____ 35 - 39 _____ 55 - 59

_____ 40 - 44 _____ 60 or over

5. Choose one of the following statements which best tells how well you like your job. Place a tick in front of that statement.

_____ 1. I hate it.

_____ 2. I dislike it.

_____ 3. I don't like it.

_____ 4. I am indifferent to it.

_____ 5. I like it.

_____ 6. I am enthusiastic about it.

_____ 7. I love it.

6. Tick one of the following to show how much of the time you feel satisfied with your job.

_____ 1. All the time.

_____ 2. Most of the time.

_____ 3. A good deal of the time.

_____ 4. About half of the time.

_____ 5. Occasionally.

_____ 6. Seldom.

_____ 7. Never.

7. Tick one of the following which best tells how you feel about changing your job.

_____ 1. I would leave this job at once if I could get anything else to do.

_____ 2. I would take almost any other job in which I could earn as much as I am earning now.

_____ 3. I would like to change both my job and my occupation.

_____ 4. I would like to exchange my present job for another one.

_____ 5. I am not eager to change my job, but I would do so if I could get a better job.

_____ 6. I cannot think of any jobs for which I would exchange.

_____ 7. I would not exchange my job for any other.

8. Tick one of the following to show how you think you compare with other people.

_____ 1. No-one likes his job better than I like mine.

_____ 2. I like my job much better than most people like theirs.

_____ 3. I like my job better than most people like theirs.

_____ 4. I like my job about as well as most people like theirs.

_____ 5. I dislike my job more than most people dislike theirs.

_____ 6. I dislike my job much more than most people dislike theirs.

_____ 7. No-one dislikes his job more than I dislike mine.

THANK YOU FOR YOUR HELP

Appendix 3.

Details of Composition of Pilot Survey Sample

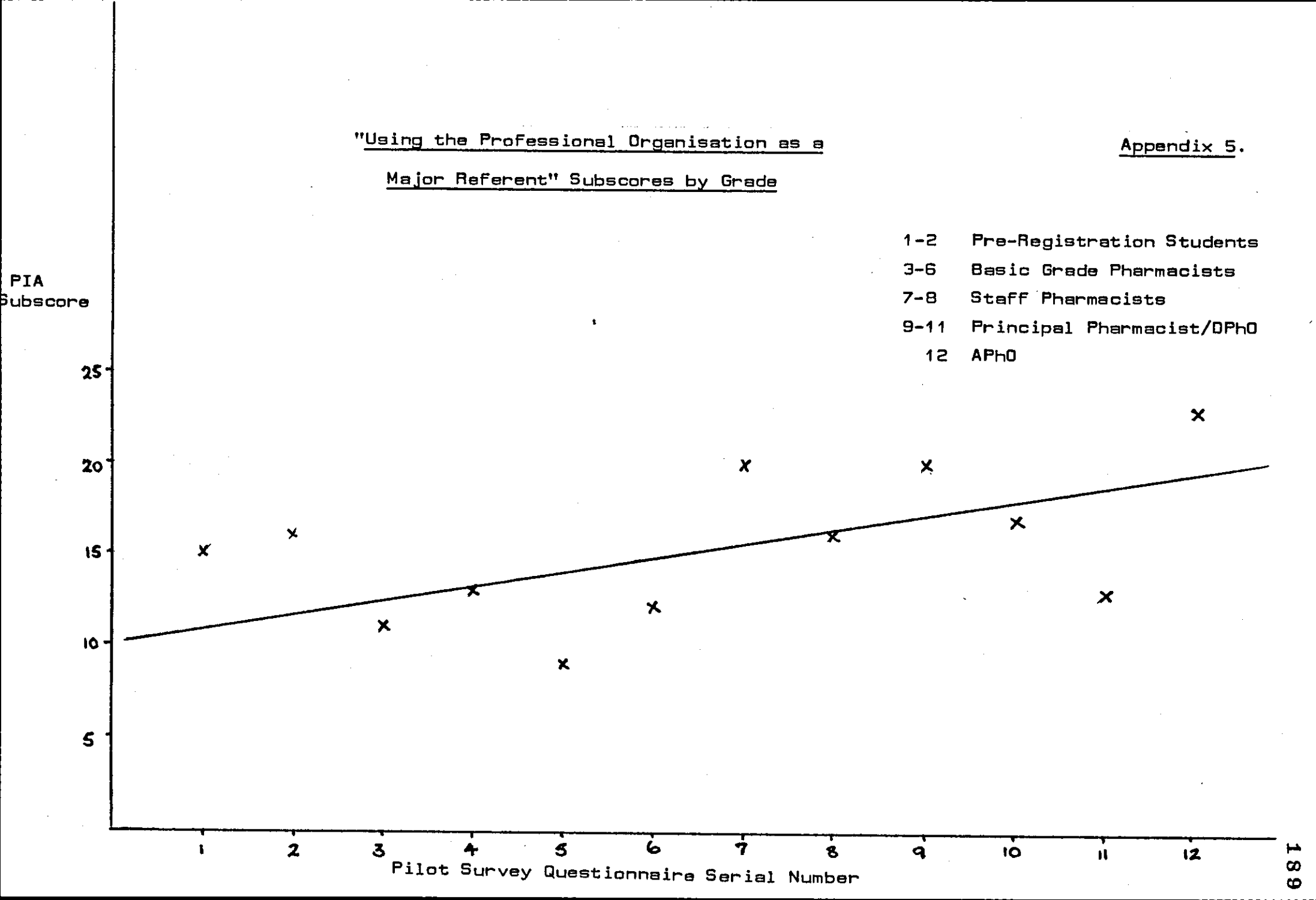
Serial No.	Grade	Sex	Age Group in Years	No. of Years Registered
1	Pre-Registration Student	Female	20 - 29	Pre-Registration Year
2	Pre-Registration Student	Female	20 - 29	Pre-Registration Year
3	Basic Grade Pharmacist	Female	30 - 34	6 - 10
4	Basic Grade Pharmacist	Male	20 - 29	3 - 5
5	Basic Grade Pharmacist	Female	20 - 29	0 - 2
6	Basic Grade Pharmacist	Male	20 - 29	0 - 2
7	Staff Pharmacist	Male	20 - 29	3 - 5
8	Staff Pharmacist	Female	20 - 29	3 - 5
9	Principal Pharmacist	Male	20 - 29	3 - 5
10	District Pharmaceutical Officer	Male	30 - 34	11 - 15
11	District Pharmaceutical Officer	Female	35 - 39	15+
12	Area Pharmaceutical Officer	Male	35 - 39	11 - 15

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - PILOT SURVEY SCORES

Appendix 4.

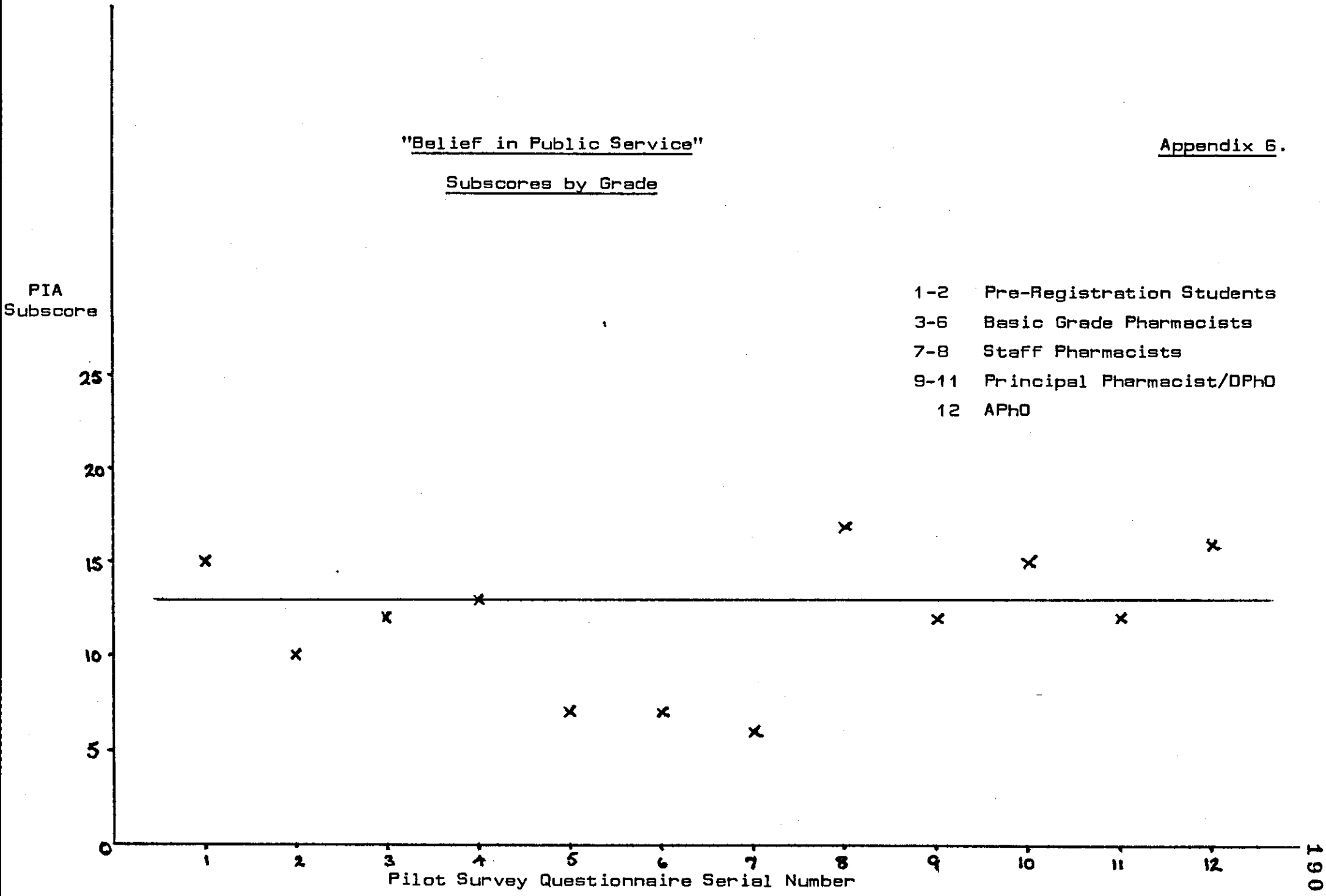
	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Pilot Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
PILOT SURVEY QUESTIONNAIRE SERIAL NUMBER 1	4	4	5	1	1	15	4	2	5	2	2	15	5	4	4	4	4	21	4	5	4	5	5	23	4	4	3	2	1	14	88
2	2	2	5	3	4	16	2	3	2	2	1	10	2	5	5	5	4	21	2	2	1	1	2	8	2	2	1	1	2	8	63
3	2	1	4	2	2	11	2	2	4	2	2	12	4	4	4	3	2	17	2	4	4	4	2	16	4	2	2	2	2	12	68
4	4	2	3	2	2	13	4	3	2	3	1	13	2	2	2	3	2	11	2	2	2	2	2	10	2	4	2	1	2	11	58
5	2	2	2	1	2	9	1	1	3	1	1	7	3	5	3	3	3	17	1	3	3	1	4	12	3	3	3	1	2	12	57
6	4	2	3	1	2	12	1	1	2	1	2	7	3	1	3	5	3	15	1	1	1	1	2	6	3	1	3	2	1	10	50
7	4	5	4	3	4	20	2	1	1	1	1	6	3	2	3	4	3	15	2	2	4	4	2	14	5	4	4	2	4	19	64
8	3	3	5	4	1	16	5	1	5	4	2	17	4	5	4	4	4	21	2	3	3	4	3	15	3	5	2	4	4	18	87
9	5	4	5	1	5	20	4	2	4	1	1	12	2	3	4	4	2	15	3	2	1	4	2	12	4	4	1	4	4	17	76
10	2	4	5	5	1	17	3	4	4	2	2	15	2	3	5	4	4	18	3	4	4	4	4	19	4	4	2	2	2	14	83
11	2	2	4	4	1	13	3	1	4	2	2	12	4	4	4	4	4	20	4	3	3	4	5	19	4	5	4	4	4	21	85
12	4	5	5	4	5	23	4	2	4	2	4	16	4	3	4	5	2	19	3	4	4	3	4	18	4	5	1	5	4	19	95

"Using the Professional Organisation as a Major Referent" Subscores by Grade



"Belief in Public Service"

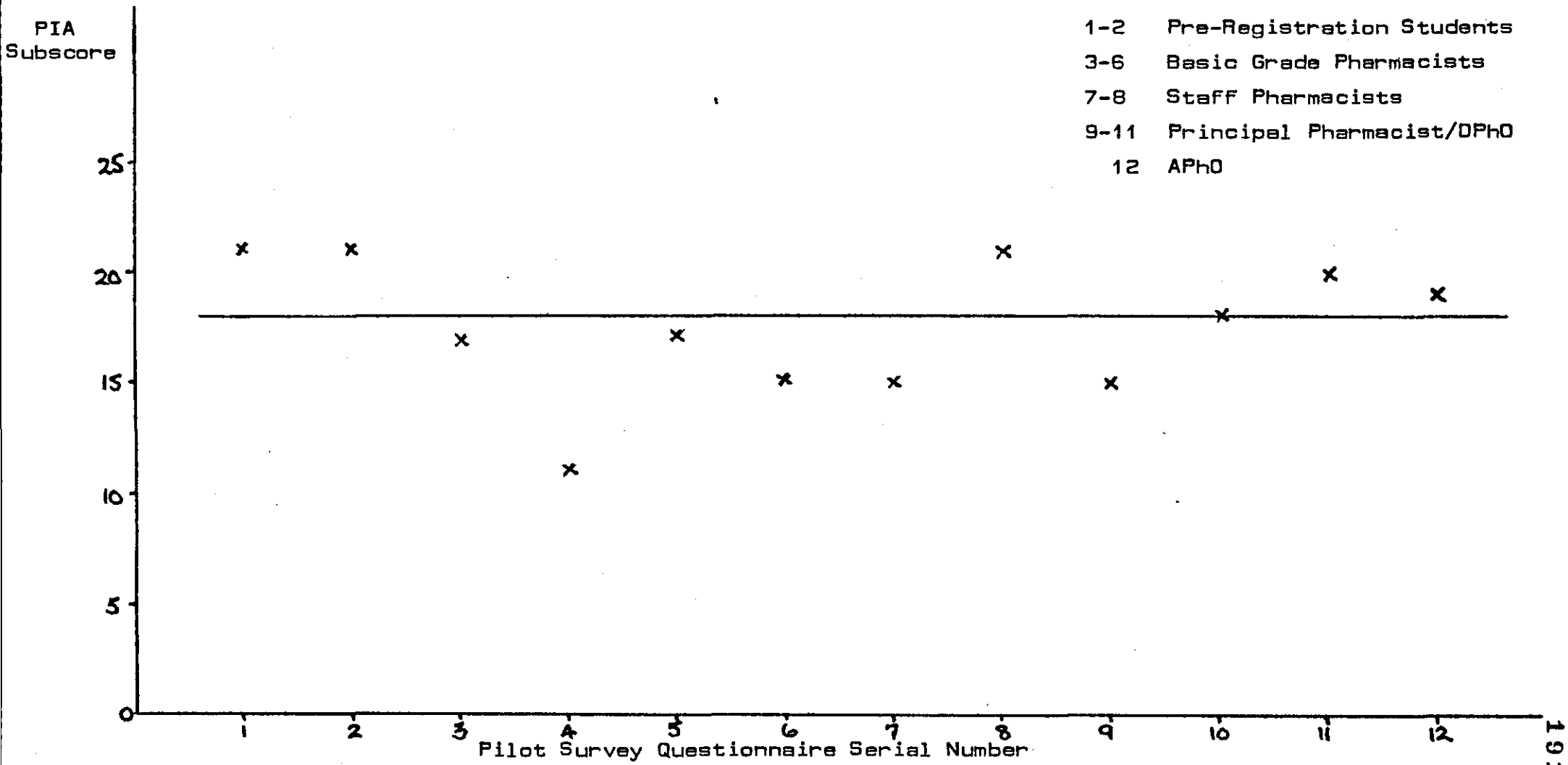
Subscores by Grade



"Belief in Self-Regulation"

Appendix 7.

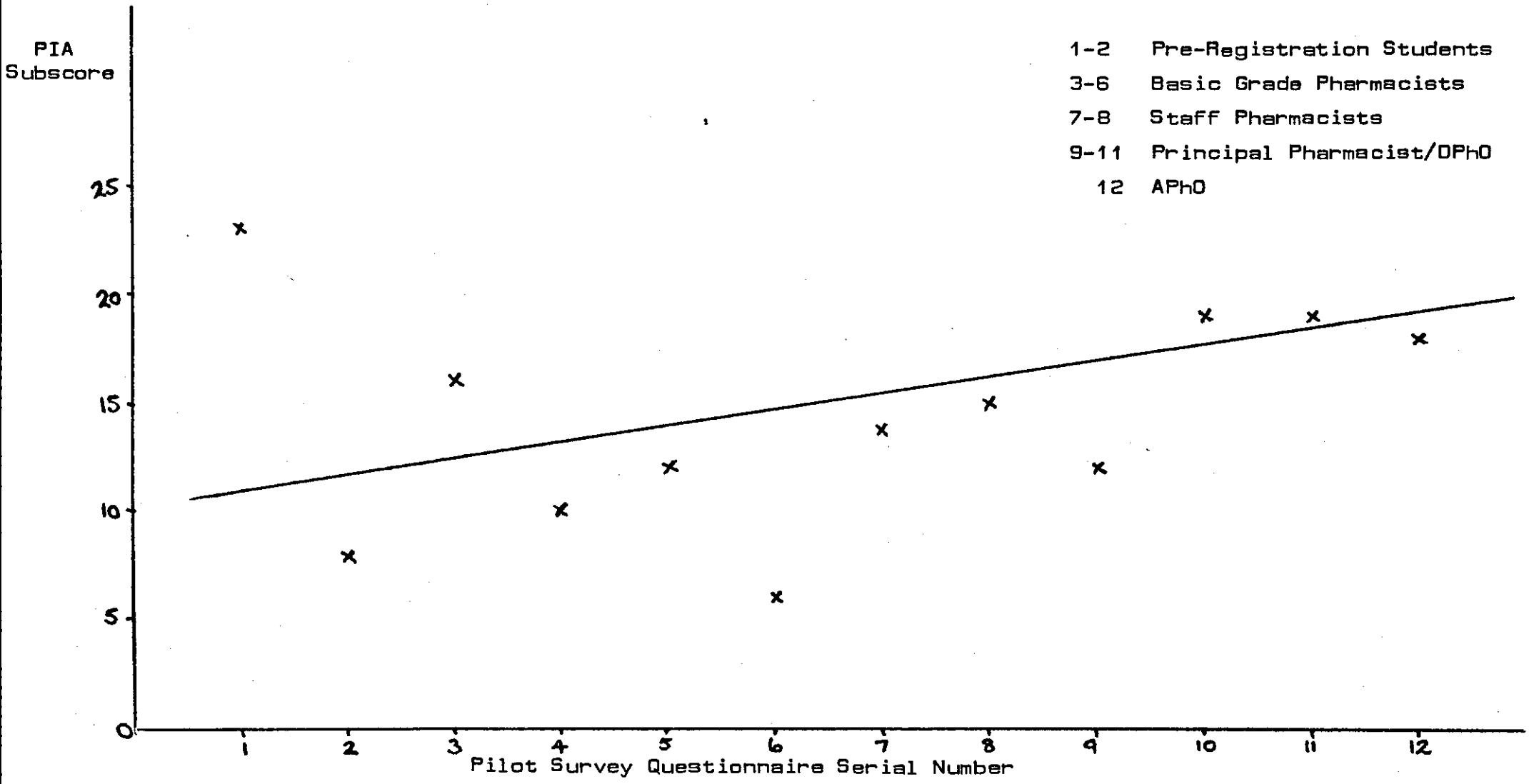
Subscores by Grade



"Sense of Calling to the Field"

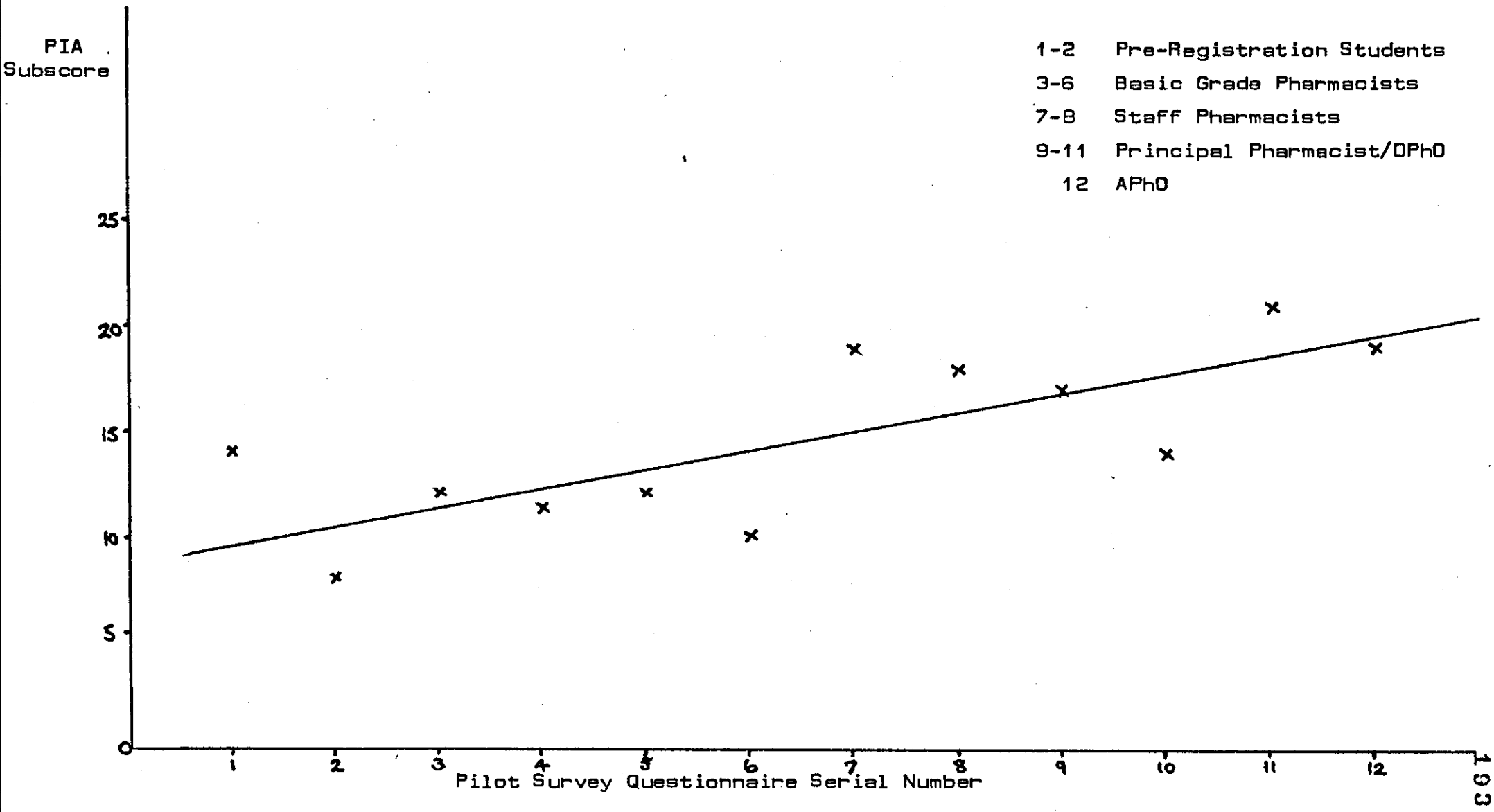
Appendix 8.

Subscores by Grade



"Autonomy" Subscores by Grade

Appendix 9.



Appendix 10.

Details of Primary Orientation, and Job Satisfaction Score of Pilot Survey Sample

Serial No.	Primary Orientation	Job Satisfaction Score (Maximum 28)
1	Mixed	20
2	Pragmatic	16
3	Pragmatic	17
4	Mixed	16
5	Mixed	18
6	Moralistic	17
7	Moralistic	17
8	Mixed	15
9	Pragmatic	17
10	Moralistic	17
11	Affect	19
12	Moralistic	16

Appendix 11.

Pilot Study - PVQ Data By Concept Analysis

Weighted by Individuals

Concept	Individual Identification Number and Score							
	2	3	6	7	9	10	11	12
Goals of Hospital Pharmacy								
1. High Productivity	4	2	1	1	4	4	1	4
2. Staff Welfare	3	3	4	4	3	4	3	4
3. Organizational Stability	4	3	3	3	2	3	2	4
4. Service Maximisation	4	4	4	2	4	4	3	4
5. Pharmacy Efficiency	4	4	3	3	4	3	3	4
6. Social Welfare	3	1	4	1	1	3	2	1
7. Organisational Growth	2	4	4	3	4	1	1	2
Sub-total	24	21	23	17	22	22	15	23
Groups of People								
8. Staff	3	3	1	3	3	3	4	4
9. Patients	3	3	4	4	3	4	4	4
10. My Co-workers	3	3	3	1	4	4	4	4
11. My Boss	4	2	2	4	4	1	4	2
12. Managers	4	4	2	4	1	1	1	3

Pilot Study - PVQ Data By Concept Analysis

Weighted by Individuals

Appendix 11.

Concept	Individual Identification Number and Score							
	2	3	6	7	9	10	11	12
13. AHA Members	4	1	1	2	2	1	1	1
14. My Subordinates	3	3	4	3	4	4	4	4
15. Pharmacy Technicians	3	4	4	4	2	4	4	4
16. My Hospital	4	4	1	4	1	4	3	3
17. Me	4	4	4	4	2	2	2	2
18. Unions	4	2	4	3	2	1	1	2
19. Clerical Staff	3	2	2	4	4	4	3	4
20. Ancillary Staff	3	2	4	4	2	4	3	4
Sub-total	45	37	36	44	34	37	38	41
Ideas Associated with People								
21. Ambition	4	4	2	4	4	4	1	1
22. Ability	4	4	3	3	4	4	4	3
23. Obedience	3	4	1	1	1	4	1	3
24. Trust	3	3	1	3	4	4	3	4
25. Aggressiveness	2	2	4	1	2	1	1	1

Pilot Study - PVQ Data By Concept Analysis

Weighted by Individuals

Appendix 11.

Concept	Individual Identification Number and Score							
	2	3	6	7	9	10	11	12
26. Loyalty	3	3	1	3	1	4	3	4
27. Prejudice	1	2	1	1	1	1	1	3
28. Compassion	3	3	1	3	3	4	4	3
29. Skill	3	4	4	4	4	3	1	4
30. Co-operation	3	4	1	3	4	4	3	3
31. Tolerance	3	2	1	2	4	4	2	3
32. Conformity	1	1	1	2	1	1	2	1
Sub-total	33	37	21	30.	33	38	26	33
Personal Goals of Individuals								
33. Leisure	3	3	3	4	4	1	2	3
34. Dignity	3	1	1	2	2	4	1	1
35. Achievement	4	4	3	4	1	3	3	3
36. Autonomy	3	2	1	1	1	1	2	1
37. Money	4	1	4	2	3	2	2	1
38. Individuality	3	4	3	1	2	1	2	3

Pilot Study - PVQ Data By Concept Analysis

Weighted by Individuals

Appendix 11.

Concept	Individual Identification Number and Score							
	2	3	6	7	9	10	11	12
39. Job Satisfaction	4	4	4	3	4	4	3	3
40. Influence	4	4	3	3	2	3	1	1
41. Security	2	3	3	3	3	4	4	1
42. Power	4	2	4	1	1	1	1	1
43. Creativity	4	1	3	3	4	4	1	3
44. Success	4	4	3	1	3	1	1	3
45. Prestige	4	3	1	1	1	1	1	1
Sub-total	46	36	35	29	31	30	24	25
Ideas about General Topics								
46. Authority	4	4	3	1	2	4	1	2
47. Caution	1	2	3	1	1	1	1	2
48. Change	4	3	3	3	2	1	1	3
49. Compromise	3	2	1	1	4	1	1	1
50. Conflict	4	2	1	1	1	4	1	1

Pilot Study - PVQ Data By Concept Analysis

Weighted by Individuals

Appendix 11.

Concept	Individual Identification Number and Score							
	2	3	6	7	9	10	11	12
51. Emotions	4	3	3	3	1	2	3	1
52. Equality	1	3	4	3	1	2	1	3
53. Risk	2	2	3	4	1	1	1	1
Sub-total	23	21	21	17	13	16	10	14
Grand Total	171	152	137	137	133	143	113	136

Appendix 12.

PILOT STUDY - PVQ CONCEPT ANALYSIS - TOTAL SCORES BY CONCEPT

CONCEPT	OPERATIVE	INTENDED	ADOPTED	WEAK
WEIGHTING	4	3	2	1
1. High Productivity	16		2	3
2. Staff Welfare	16	12		
3. Organizational Stability	8	9	4	
4. Service Maximisation	24	3	2	
5. Pharmacy Efficiency	16	16		
6. Social Welfare	4	6	2	4
7. Organisational Growth	12	3	4	2
8. Staff	8	15		1
9. Patients	20	9		
10. My Co-workers	16	9		1
11. My Boss	16		6	1
12. Managers	12	3	2	3
13. AHA Members	4		4	5
14. My Subordinates	20	9		
15. Pharmacy Technicians	24	3	2	
16. My Hospital	16	6		2
17. Me	16		8	
18. Unions	8	3	6	2
19. Clerical Staff	16	6	4	
20. Ancillary Staff	16	6	4	
21. Ambition	20	3		2
22. Ability	20	9		
23. Obedience	8	6		4
24. Trust	12	12		1
25. Aggressiveness	4		6	4
26. Loyalty	8	12		2
27. Prejudice		3	2	6
28. Compassion	8	15		1
29. Skill	20	6		1
30. Co-operation	12	12		1
31. Tolerance	8	6	6	1

Appendix 12.

PILOT STUDY - PVQ CONCEPT ANALYSIS - TOTAL SCORES BY CONCEPT

CONCEPT	OPERATIVE	INTENDED	ADOPTED	WEAK
WEIGHTING	4	3	2	1
32. Conformity			4	6
33. Leisure	8	12	2	1
34. Dignity	4	3	4	4
35. Achievement	12	12		1
36. Autonomy		3	4	5
37. Money	8	3	6	2
38. Individuality	4	9	4	2
39. Job Satisfaction	20	9		
40. Influence	8	9	2	2
41. Security	8	12	2	1
42. Power	8		2	5
43. Creativity	12	9		2
44. Success	8	9		3
45. Prestige	4	3		6
46. Authority	12	3	4	2
47. Caution		3	4	5
48. Change	4	12	2	2
49. Compromise	4	3	2	5
50. Conflict	8		2	5
51. Emotions	4	12	2	2
52. Equality	4	9	2	3
53. Risk	4	3	4	4

Appendix 13.

PILOT STUDY - MEAN SCORES AND STANDARD DEVIATIONS - 10 VARIABLES

Variable	Mean Score	Standard Deviation	No. of Cases
PROFREF	16.5000	4.3095	8
PUBSERV	11.2500	3.4949	8
SELFREG	17.5000	2.3905	8
SENSCALL	14.0000	4.9857	8
AUTON	15.0000	4.7208	8
GOALS	20.8750	3.1820	8
GROUPS	39.0000	3.9279	8
IDEAS	31.3750	5.6300	8
PRSGOALS	32.1250	7.1201	8
GENERAL	16.8750	4.5178	8

Appendix 14.

PILOT STUDY - CORRELATION COEFFICIENTS 10 VARIABLES

	PROFREF	PUBSERV	SELFREG	SENSCALL	AUTON
PROFREF	1.00000	0.28456	-0.05547	0.21277	0.47750
PUBSERV	0.28456	1.00000	0.47879	0.68049	0.24244
SELFREG	-0.05547	0.47879	1.00000	0.28768	-0.06330
SENSCALL	0.21277	0.68049	0.28768	1.00000	0.68587
AUTON	0.47750	0.24244	-0.06330	0.68587	1.00000
GOALS	0.14064	0.23444	0.02817	-0.47726	-0.70376
GROUPS	0.31226	-0.26016	0.44122	-0.09483	-0.05393
IDEAS	0.28557	0.60443	0.21761	0.47841	-0.05913
PRSGOALS	-0.37013	-0.36311	0.13010	-0.74047	-0.92652
GENERAL	-0.38522	-0.43203	-0.04630	-0.65960	-0.90426

	GOALS	GROUPS	IDEAS	PRSGOALS	GENERAL
PROFREF	0.14064	0.31226	0.28557	-0.37013	-0.38522
PUBSERV	0.23444	-0.26016	0.60443	-0.36311	-0.43203
SELFREG	0.02817	0.44122	0.21761	0.13010	-0.04630
SENSCALL	-0.47726	-0.09483	0.47841	-0.74047	-0.65960
AUTON	-0.70376	-0.05393	-0.05913	-0.92652	-0.90426
GOALS	1.00000	-0.05715	0.26615	0.58719	0.56519
GROUPS	-0.05715	1.00000	0.06460	0.26562	0.31396
IDEAS	0.26615	0.06460	1.00000	0.08776	0.05827
PRSGOALS	0.58719	0.26562	0.08776	1.00000	0.88432
GENERAL	0.56519	0.31396	0.05827	0.88432	1.00000

Appendix 15.

PILOT STUDY - ESTIMATES OF COMMUNALITY, EIGEN VALUE, PERCENTAGE OF VARIANCE AND CUMULATIVE PERCENTAGE

Variable	Est Communality	Eigen Value	Pct of Var	Cum Pct
PROFREF	0.47750	4.24908	42.5	42.5
PUBSERV	0.68049	2.25398	22.5	65.0
SELFREG	0.47879	1.43558	14.4	79.4
SENSCALL	0.74047	1.19228	11.9	91.3
AUTON	0.92652	0.66974	6.7	98.0
GOALS	0.70376	0.18222	1.8	99.8
GROUPS	0.44122	0.01713	0.2	100.0
IDEAS	0.60443	0.00000	0.0	100.0
PRSGOALS	0.92652	-0.00000	-0.0	100.0
GENERAL	0.90426	-0.00000	-0.0	100.0

Appendix 16.

PILOT STUDY - FACTOR MATRIX USING

PRINCIPAL FACTOR WITH ITERATIONS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
PROFREF	0.38122	0.23892	0.17936	0.61883
PUBSERV	0.48911	0.72547	-0.23842	-0.09672
SELFREG	0.06897	0.49734	0.41330	-0.33979
SENSCALL	0.82131	0.33460	0.03538	-0.24530
AUTON	0.94369	-0.23820	0.15996	0.16097
GOALS	-0.56891	0.51196	-0.30737	0.33120
GROUPS	-0.16718	0.13776	0.73183	0.14237
IDEAS	0.13146	0.74445	-0.04040	0.05467
PRSGOALS	-0.94493	0.20723	0.11708	-0.07600
GENERAL	-0.93081	0.12678	0.10405	-0.01893

Appendix 17.

PILOT STUDY - FACTOR MATRIX - COMMUNALITY, EIGEN VALUE, PERCENTAGE OF VARIANCE AND CUMULATIVE PERCENTAGE

Variable	Communality	Factor	Eigen Value	Pct of Var	Cum Pct
PROFREF	0.61754	1	4.08262	53.4	53.4
PUBSERV	0.83174	2	1.89375	24.7	78.1
SELFREG	0.53838	3	0.94289	12.3	90.4
SENSCALL	0.84794	4	0.73294	9.6	100.0
AUTON	0.99879				
GOALS	0.78994				
GROUPS	0.60277				
IDEAS	0.57612				
PRSGOALS	0.95533				
GENERAL	0.89366				

Appendix 18.

PILOT STUDY - VARIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
PROFREF	-0.21525	0.17388	0.11720	0.72611
PUBSERV	-0.20351	0.87369	-0.12634	0.10503
SELFREG	-0.01070	0.47301	0.52791	-0.18929
SENSCALL	-0.69462	0.60235	0.04825	-0.01696
AUTON	-0.95033	0.01086	0.00234	0.30908
GOALS	0.77947	0.27673	-0.18112	0.27015
GROUPS	0.11776	-0.08417	0.73723	0.19574
IDEAS	0.12813	0.71469	0.08687	0.20341
PRSGOALS	0.91531	-0.10595	0.25138	-0.20764
GENERAL	0.88646	-0.18460	0.21560	-0.16522

- TRANSFORMATION MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
FACTOR 1	-0.92734	0.30709	-0.09452	0.19183
FACTOR 2	0.31804	0.91161	0.19402	0.17371
FACTOR 3	-0.13817	-0.17576	0.97038	0.09152
FACTOR 4	0.14070	-0.20922	-0.10855	0.96159

Factor score coefficients are indeterminate.

Appendix 19

Leicester Polytechnic - Health Service Management Unit

RESEARCH INTO PROFESSIONALISM AND MANAGERIALISM AMONG HOSPITAL PHARMACISTS

by

Michael Barnwell

I am currently carrying out research into the hospital pharmaceutical service and I would like to collect information concerning some of your views. To this end I have devised these questionnaires and I would be grateful if you could spare me time to complete them. The information you give will be treated as confidential and used for my research purposes only. Under no circumstances will your individual responses be made available to anyone except the research workers. The data I am attempting to gather is for use only in my research project.

In advance I wish to thank you for your participation in this study. It is through such co-operation in studies such as this that we all advance our understanding of human behaviour.

Professional Inventory Questionnaire

The following questions are an attempt to measure certain aspects of what is commonly called "professionalism". The referent in the questions is your own profession. Each item then should be answered in the light of the way you yourself both feel and behave as a member of your particular profession.

There are five possible responses to each item. If the item corresponds VERY WELL [VW] to your own attitudes and/or behaviour, circle that response. If it corresponds WELL [W], POORLY [P], or VERY POORLY [VP], mark the appropriate response. The middle category [?] is designed to indicate an essentially neutral opinion about them. Please answer ALL items in one fashion or another, making sure that you have NO MORE THAN ONE RESPONSE FOR EACH ITEM.

1.	I systematically read the professional journals.	VW	W	?	P	VP
2.	Other professions are actually more vital to society than mine.	VW	W	?	P	VP
3.	I make my own decisions in regard to what is to be done in my work.	VW	W	?	P	VP
4.	I regularly attend professional meetings at the local level.	VW	W	?	P	VP
5.	I think that my profession, more than ony other, is essential for society.	VW	W	?	P	VP
6.	My fellow professionals have a pretty good idea about each other's competence.	VW	W	?	P	VP
7.	People in this profession have a real "calling" for their work.	VW	W	?	P	VP
8.	The importance of my profession is sometimes over stressed.	VW	W	?	P	VP
9.	The dedication of people in this field is most gratifying.	VW	W	?	P	VP
10.	I don't have much opportunity to exercise my own judgement.	VW	W	?	P	VP
11.	I believe that the professional organisation(s) should be supported.	VW	W	?	P	VP
12.	Some other occupations are actually more important to society than is mine.	VW	W	?	P	VP
13.	A problem in this profession is that no-one really knows what his colleagues are doing.	VW	W	?	P	VP
14.	It is encouraging to see the high level of idealism which is maintained by people in this field.	VW	W	?	P	VP
15.	The professional organisation doesn't really do too much for the average member.	VW	W	?	P	VP
16.	We really have no way of judging each other's competence.	VW	W	?	P	VP
17.	Although I would like to, I really don't read the journals too often.	VW	W	?	P	VP

18.	Most people would stay in the profession even if their incomes were reduced.	VW	W	?	P	VP
19.	My own decisions are subject to review.	VW	W	?	P	VP
20.	There is not much opportunity to judge how another person does his work.	VW	W	?	P	VP
21.	I am my own boss in almost every work-related situation.	VW	W	?	P	VP
22.	If ever an occupation is indispensable, this is one.	VW	W	?	P	VP
23.	My colleagues pretty well know how well we all do in our work.	VW	W	?	P	VP
24.	There are very few people who don't really believe in their work.	VW	W	?	P	VP
25.	Most of my decisions are reviewed by other people.	VW	W	?	P	VP

PERSONAL VALUES QUESTIONNAIRE

This questionnaire is part of a research study of personal values. The aim of the study is to find out how individuals look at a wide range of topics. These topics are about people, groups of people, personal goals, organisational goals and general ideas.

You will be asked to judge the degree to which each topic is: (1) important, (2) pleasant, (3) right and (4) successful. In completing this questionnaire, please make your judgements on the basis of what these topics mean to you as an individual.

Instructions

Rate how important a topic is to you by placing an "X" in the appropriate box: the left box signifies high importance; the middle box, average importance; and the right box, low importance.

Then specify which of the three descriptions (successful, pleasant, right) best indicates the meaning of the topic to you; indicate your choice by placing the number "1" on the line next to it. Then indicate which description least indicates the topic's meaning to you by writing the number "3" in the space provided. Finally, write the number "2" next to the remaining description. Complete all topics in this manner and check to see that the three descriptions for each topic have been ranked in the manner instructed.

Examples

As an example, take the topic Patriotism. If you felt that it is of average importance, you would make a check mark in the middle box as indicated. If you felt that of the three descriptions (pleasant, right and successful) "right" best indicates what the topic means to you, you would write the number "1" next to "right". If the description "successful" least indicates what the topic means to you, then you would write the number "3" next to "successful", as shown in the sample below. Then you would place the number "2" next to the remaining description, in this case "pleasant".

For some topics you may feel that none of the descriptions apply. For example, you may feel that for the topic Dishonesty, neither "pleasant", "right" nor "successful" indicates the meaning to you. If you have this trouble, you may begin by deciding which description least indicates the topic's meaning to you. For example, for the topic Dishonesty, if you felt that "right" least indicates the topic's meaning to you, you would write the number "3" next to "right", and so on for the remaining descriptions as shown in the sample.

Patriotism

High Importance  Low Importance

2 pleasant
1 right
3 successful

Dishonesty

High Importance  Low Importance

2 pleasant
3 right
1 successful

1. Goals of Hospital Pharmacy

High Productivity

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Staff Welfare

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Organisational Stability

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Service Maximisation

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Pharmacy Efficiency

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Social Welfare

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Organisational Growth

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

2. Groups of People

Staff

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

Patients

High Imp. ☐☐☐ Low Imp.

Right
Successful
Pleasant

My Co-workers

High Imp.  Low Imp.

Right
Successful
Pleasant

My Boss

High Imp.  Low Imp.

Right
Successful
Pleasant

Managers

High Imp.  Low Imp.

Right
Successful
Pleasant

AHA Members

High Imp.  Low Imp.

Right
Successful
Pleasant

My Subordinates

High Imp.  Low Imp.

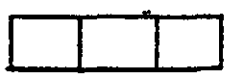
Right
Successful
Pleasant

Pharmacy Technicians

High Imp.  Low Imp.

Right
Successful
Pleasant

My Hospital

High Imp.  Low Imp.

Right
Successful
Pleasant

Me

High Imp.  Low Imp.

Right
Successful
Pleasant

Unions

High Imp.  Low Imp.

Right
Successful
Pleasant

Clerical Staff

High Imp.  Low Imp.

Right
Successful
Pleasant

Ancillary Staff

High Imp.  Low Imp.

Right
Successful
Pleasant

3. Ideas Associated with People

Ambition High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Ability** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Obedience High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Trust** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Aggressiveness High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Loyalty** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Prejudice High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Compassion** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Skill High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Co-operation** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Tolerance High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Conformity** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant

4. Personal Goals of Individuals

Leisure High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Dignity** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Achievement High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Autonomy** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Money High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Individuality** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Job Satisfaction High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Influence** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Security High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Power** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant
Creativity High Imp. ☐☐☐ Low Imp. Right Successful Pleasant	**Success** High Imp. ☐☐☐ Low Imp. Right Successful Pleasant

Prestige

High Imp.  Low Imp.

Right
Successful
Pleasant

5. Ideas about General Topics

Authority

High Imp.  Low Imp.

Right
Successful
Pleasant

Caution

High Imp.  Low Imp.

Right
Successful
Pleasant

Change

High Imp.  Low Imp.

Right
Successful
Pleasant

Compromise

High Imp.  Low Imp.

Right
Successful
Pleasant

Conflict

High Imp.  Low Imp.

Right
Successful
Pleasant

Emotions

High Imp.  Low Imp.

Right
Successful
Pleasant

Equality

High Imp.  Low Imp.

Right
Successful
Pleasant

Risk

High Imp.  Low Imp.

Right
Successful
Pleasant

Name: _____ AHA _____

Please tick appropriate space or enter appropriate detail

1. Sex

Male	
Female	

2. Grade

		*
Pre-Registration student		
Basic grade Pharmacist		
Staff Pharmacist		
Principal Pharmacist		
District Ph.O		
Area Ph.O		

3. No. of years Registered as a Pharmacist

Pre Reg year	
0 - 2 years	
3 - 5 years	
6 - 10 years	
11 - 15 years	
15 years and over	

* Please enter length of service in present grade in years and months in this column. Only present grade need be completed.

4. Your age

_____ 20 - 29 _____ 45 - 49

_____ 30 - 34 _____ 50 - 54

_____ 35 - 39 _____ 55 - 59

_____ 40 - 44 _____ 60 or over

5. Choose one of the following statements which best tells how well you like your job. Place a tick in front of that statement.

_____ 1. I hate it.

_____ 2. I dislike it.

_____ 3. I don't like it.

_____ 4. I am indifferent to it.

_____ 5. I like it.

_____ 6. I am enthusiastic about it.

_____ 7. I love it.

6. Tick one of the following to show how much of the time you feel satisfied with your job.

_____ 1. All the time.

_____ 2. Most of the time.

_____ 3. A good deal of the time.

_____ 4. About half of the time.

_____ 5. Occasionally.

_____ 6. Seldom.

_____ 7. Never.

7. Tick one of the following which best tells how you feel about changing your job.

_____ 1. I would leave this job at once if I could get anything else to do.

_____ 2. I would take almost any other job in which I could earn as much as I am earning now.

_____ 3. I would like to change both my job and my occupation.

_____ 4. I would like to exchange my present job for another one.

_____ 5. I am not eager to change my job, but I would do so if I could get a better job.

_____ 6. I cannot think of any jobs for which I would exchange.

_____ 7. I would not exchange my job for any other.

8. Tick one of the following to show how you think you compare with other people.

_____ 1. No-one likes his job better than I like mine.

_____ 2. I like my job much better than most people like theirs.

_____ 3. I like my job better than most people like theirs.

_____ 4. I like my job about as well as most people like theirs.

_____ 5. I dislike my job more than most people dislike theirs.

_____ 6. I dislike my job much more than most people dislike theirs.

_____ 7. No-one dislikes his job more than I dislike mine.

THANK YOU FOR YOUR HELP

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - AREA PHARMACEUTICAL OFFICERS

Appendix 20.

MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						P.I.A. Score
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
1	4	5	5	4	5	23	4	2	4	2	4	16	4	3	4	5	3	19	3	4	4	3	4	18	4	5	1	5	4	19	95
2	2	5	5	2	3	17	4	3	4	2	4	17	4	5	4	5	3	21	3	3	4	3	4	17	4	5	3	3	2	17	89
3	4	5	5	4	3	21	2	3	2	2	4	13	3	4	3	4	2	16	4	3	4	4	2	17	5	5	4	4	4	22	89
4	2	4	5	5	2	18	3	2	4	3	3	15	4	5	4	3	5	21	3	4	5	4	5	21	5	5	5	5	5	25	100
5	5	4	5	2	5	21	3	3	4	3	2	15	4	4	4	4	2	18	4	4	5	4	4	21	4	4	1	5	5	19	94
6	5	5	5	3	5	23	5	4	2	5	1	17	1	3	2	4	4	14	4	4	3	4	4	19	4	5	2	5	5	21	94

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - AREA PHARMACEUTICAL OFFICERS

Appendix 20.

MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						P.I.A. Score
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
1	4	5	5	4	5	23	4	2	4	2	4	16	4	3	4	5	3	19	3	4	4	3	4	18	4	5	1	5	4	19	95
2	2	5	5	2	3	17	4	3	4	2	4	17	4	5	4	5	3	21	3	3	4	3	4	17	4	5	3	3	2	17	89
3	4	5	5	4	3	21	2	3	2	2	4	13	3	4	3	4	2	16	4	3	4	4	2	17	5	5	4	4	4	22	89
4	2	4	5	5	2	18	3	2	4	3	3	15	4	5	4	3	5	21	3	4	5	4	5	21	5	5	5	5	5	25	100
5	5	4	5	2	5	21	3	3	4	3	2	15	4	4	4	4	2	18	4	4	5	4	4	21	4	4	1	5	5	19	94
6	5	5	5	3	5	23	5	4	2	5	1	17	1	3	2	4	4	14	4	4	3	4	4	19	4	5	2	5	5	21	94

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - DISTRICT and PRINCIPAL PHARMACEUTICAL OFFICERS

Appendix 21.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																							
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER 7	4	3	5	1	4	17	2	3	2	2	3	12	2	3	3	2	3	13	2	2	3	3	4	14	5	5	3	4	2	19	75
8	2	4	5	5	1	17	3	4	4	2	2	15	2	3	5	4	4	18	3	4	4	4	4	19	4	4	2	2	2	14	83
9	2	2	4	4	1	13	3	1	4	2	2	12	4	4	4	4	4	20	4	3	3	4	5	19	4	5	4	4	4	21	85
10	5	4	5	4	5	23	2	1	4	2	3	12	4	4	4	4	4	20	1	3	4	3	4	15	5	5	5	5	5	25	95
11	4	4	4	2	4	18	2	3	4	2	2	13	4	4	4	3	4	19	2	2	2	4	3	13	3	3	3	2	3	14	77
12	2	4	5	3	2	16	3	1	3	2	2	11	2	2	2	2	2	10	4	4	4	4	4	20	4	4	3	4	4	19	76
13	4	3	5	1	4	17	2	4	4	2	2	14	4	5	5	5	5	24	5	4	4	3	2	18	5	5	5	5	5	25	98
14	2	5	5	1	1	14	1	1	1	1	2	6	5	4	5	5	4	23	4	4	4	4	4	20	4	5	1	5	5	20	83
15	2	1	5	2	2	12	3	1	4	1	2	11	4	4	5	5	4	22	3	5	4	4	3	19	2	4	2	1	4	13	77
16	4	4	5	4	4	21	4	3	4	4	4	19	4	4	3	4	3	18	2	3	5	2	4	16	2	4	3	2	3	14	88
17	5	4	5	1	5	20	4	2	4	1	1	12	2	3	2	2	2	11	3	2	1	4	2	12	4	4	1	4	4	17	72
18	4	5	3	3	4	19	3	1	2	1	2	9	4	4	4	4	4	20	4	4	4	2	4	18	5	5	2	5	3	20	86

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - STAFF PHARMACISTS

Appendix 22.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																							
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER																															
19	4	5	4	3	4	20	2	1	1	1	1	6	3	2	3	4	3	15	2	2	4	4	2	14	5	4	4	2	4	19	64
20	3	3	5	1	3	15	4	1	5	5	4	19	5	2	2	4	4	17	3	3	4	1	3	14	4	4	3	4	1	16	81
21	5	2	4	2	4	17	2	2	4	2	3	13	5	5	5	4	4	23	3	4	5	5	4	21	4	5	2	4	4	19	93
22	3	3	5	4	1	16	5	1	5	4	2	17	4	5	4	4	4	21	2	3	3	4	3	15	3	5	2	4	4	18	87
23	2	2	4	3	4	15	4	2	3	2	1	12	4	3	5	4	4	20	3	2	3	2	5	15	4	4	3	4	5	20	82
24	4	4	4	2	4	18	4	3	4	4	5	20	3	4	3	3	3	16	3	3	4	4	3	17	5	5	4	5	4	23	94
25	3	4	5	5	2	19	3	3	3	2	2	13	3	4	3	3	3	16	2	3	2	2	2	11	4	3	3	3	4	17	76
26	2	3	5	4	3	17	3	3	3	2	3	14	5	5	5	5	4	24	2	2	4	2	4	14	4	5	3	4	4	20	89
27	3	3	4	3	4	17	3	3	4	2	2	14	4	5	4	4	4	21	3	4	4	3	5	19	4	4	2	3	4	17	88
28	2	4	5	2	2	15	3	2	1	1	3	10	4	3	4	3	4	18	2	2	2	2	4	12	4	5	1	4	5	19	74
29	3	2	3	2	3	13	4	4	3	4	4	19	4	4	4	4	4	20	3	4	3	4	4	18	4	4	4	4	4	20	90
30	3	2	4	1	4	14	2	2	2	2	4	12	4	4	4	4	4	20	3	3	4	2	4	16	4	4	3	4	4	19	81

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - STAFF PHARMACISTS

Appendix 22.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																										
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER																															
31	2	2	2	1	1	8	1	2	3	2	2	10	4	4	3	1	3	15	2	4	1	4	3	14	4	4	4	5	4	21	67
32	3	4	4	2	2	15	3	2	3	3	2	13	4	3	3	4	3	17	3	3	2	4	3	15	4	4	3	2	4	17	77
33	3	2	4	2	2	13	2	2	3	3	3	13	3	3	3	3	3	15	3	3	4	4	4	18	4	4	3	4	3	18	77
34	1	4	5	2	1	13	1	1	4	1	1	8	4	4	4	4	4	20	2	4	4	4	4	18	4	4	2	4	2	16	75
35	4	5	5	5	5	24	1	1	4	1	2	9	3	2	3	3	3	14	1	3	3	4	4	15	4	4	3	1	4	16	68
36	4	4	5	1	3	17	2	1	1	1	1	6	4	4	2	2	1	13	1	3	3	2	4	13	5	5	3	5	4	22	71
37	4	4	4	3	4	19	3	3	3	3	2	14	4	3	3	3	4	17	3	4	3	3	4	17	4	3	2	4	2	15	82
38	4	1	4	3	4	16	2	1	2	2	2	9	4	2	4	4	1	15	3	2	3	2	1	11	2	4	4	2	5	17	68
39	2	1	3	1	2	9	3	2	3	2	2	12	4	4	4	4	4	20	4	4	4	4	4	20	2	4	1	2	3	12	74
40	4	1	5	2	5	17	3	3	3	3	3	15	3	4	3	3	3	16	3	3	4	3	3	16	5	5	3	3	4	20	84
41	3	3	4	3	4	17	4	2	4	4	1	15	5	4	4	4	4	21	3	3	3	2	4	15	4	4	2	2	4	16	84
42	3	4	4	2	2	15	4	2	4	3	1	14	4	4	3	3	4	18	3	4	4	4	2	17	5	5	1	5	5	21	85

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - STAFF PHARMACISTS

Appendix 22.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																							
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER 43	4	5	4	2	4	19	5	3	4	2	3	17	2	4	4	4	3	17	2	3	3	3	4	15	5	5	4	4	4	22	90
44	3	5	4	3	2	17	1	2	3	1	1	8	5	3	5	2	5	20	1	2	4	2	4	13	3	3	2	3	5	16	74
45	4	5	5	2	4	20	1	1	2	1	1	6	1	2	1	3	2	9	1	3	3	4	3	14	5	5	2	3	4	19	68
46	5	4	5	1	1	16	3	3	3	2	1	12	3	1	1	1	1	7	3	3	3	1	1	11	5	3	4	5	4	21	67
47	4	5	4	3	4	20	1	1	4	1	1	8	5	5	2	4	5	21	2	2	1	4	4	13	3	3	1	2	2	11	73
48	3	4	5	5	5	22	3	3	4	3	1	14	4	4	4	4	4	20	3	3	2	1	2	11	5	5	2	5	4	21	88
49	4	1	4	3	3	15	1	2	4	1	3	11	4	4	4	4	3	19	3	3	3	2	4	15	5	5	4	5	5	24	84
50	5	5	5	4	4	23	2	4	4	4	1	15	5	2	2	4	4	17	4	4	4	2	4	18	4	4	2	2	2	14	87
51	4	4	4	1	4	17	3	3	4	3	2	15	4	2	4	4	4	18	3	3	2	2	3	13	4	4	4	5	5	22	85
52	4	4	4	4	4	20	2	2	3	2	4	13	4	4	4	4	4	20	3	3	3	4	4	17	5	5	2	4	4	20	90
53	4	2	3	1	5	16	3	2	3	2	2	12	4	3	4	4	2	17	3	3	2	3	2	13	4	5	3	4	3	19	77
54	4	2	3	2	4	15	3	3	5	3	4	18	4	4	4	4	3	19	4	4	4	3	4	19	4	4	4	4	4	20	91

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - STAFF PHARMACISTS

Appendix 22.

MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						P.I.A. Score
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
55	5	5	4	2	5	21	2	2	4	2	3	13	4	4	3	4	4	19	2	3	3	4	2	14	3	4	2	2	3	14	81
56	2	4	4	1	2	13	2	2	2	1	2	9	4	4	4	4	4	20	1	3	3	3	2	12	4	2	4	4	4	18	72
57	1	1	3	1	4	10	1	1	2	1	1	6	1	3	5	4	3	16	1	1	1	4	2	9	4	4	3	4	4	19	60
58	4	4	5	1	4	18	5	3	4	1	2	15	2	1	5	5	4	17	2	2	1	2	3	10	4	5	2	4	2	17	77
59	2	1	3	1	2	9	2	1	2	1	2	8	2	3	4	4	4	17	3	4	4	4	4	19	2	4	2	2	2	12	65
60	2	5	5	1	1	14	2	2	2	1	1	8	5	4	2	5	4	20	2	5	2	5	5	19	5	5	1	4	4	19	80
61	5	4	5	2	5	21	3	3	4	3	5	18	4	4	4	4	4	20	4	2	4	4	5	19	5	1	4	5	4	19	97

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - BASIC GRADE PHARMACISTS

Appendix 23.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																							
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER 62	2	4	4	2	2	16	2	2	5	2	4	15	3	3	4	4	3	17	3	3	3	3	3	15	3	2	2	2	3	12	75
63	3	1	3	2	3	12	3	2	2	2	3	12	4	4	4	4	4	20	1	2	2	2	2	9	4	4	4	3	4	19	72
64	4	4	4	2	5	19	3	3	2	4	4	16	4	5	4	2	4	19	4	3	4	1	4	16	4	4	3	4	3	18	88
65	5	2	4	3	5	19	2	1	2	2	1	8	4	4	4	4	4	20	3	3	4	3	2	15	4	4	4	4	3	19	81
66	4	2	3	2	2	13	4	3	2	3	1	13	2	2	2	3	2	11	2	2	2	2	2	10	2	4	2	1	2	11	58
67	2	4	5	4	2	17	3	3	4	3	1	14	4	5	4	4	4	21	4	4	4	2	4	18	4	5	3	3	3	18	88
68	4	3	4	3	3	17	3	4	4	2	3	16	4	4	4	3	4	19	3	3	4	2	4	16	4	2	3	4	3	16	84
69	4	2	4	1	4	15	4	4	4	4	2	18	4	3	3	3	4	17	2	3	4	4	4	17	4	4	3	2	3	16	83
70	3	2	3	2	2	12	1	1	5	1	1	9	5	5	4	4	4	22	2	3	4	5	4	18	3	4	2	1	2	12	73
71	4	1	4	2	4	15	2	3	3	3	2	13	5	4	4	3	4	20	2	2	3	1	2	10	4	4	3	2	2	15	73
72	4	3	3	2	3	15	1	1	1	1	1	5	5	4	4	4	5	22	2	2	1	2	2	9	4	3	2	2	2	13	64
73	2	4	4	4	2	16	3	1	3	2	2	11	4	4	3	3	2	16	3	2	2	2	3	12	4	4	2	2	4	16	71

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - BASIC GRADE PHARMACISTS

Appendix 23.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																							
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER																															
74	2	4	4	4	1	15	1	2	2	1	2	8	2	4	4	2	1	13	1	1	2	2	2	8	4	4	1	1	1	11	55
75	5	4	4	4	4	21	2	1	2	1	1	7	4	5	5	4	5	23	2	2	2	4	4	14	4	4	1	1	2	12	77
76	5	5	5	4	5	24	2	2	5	1	3	13	4	5	3	5	4	21	4	4	4	1	3	16	4	5	2	3	3	17	91
77	4	2	4	2	4	16	3	2	4	2	4	15	4	4	4	4	4	20	2	2	2	1	2	9	4	4	3	2	3	16	76
78	3	4	4	4	3	18	4	3	4	2	4	17	4	4	4	4	4	20	3	3	3	4	3	16	4	4	3	4	3	18	89
79	2	4	4	2	2	14	4	2	3	2	1	12	4	5	4	4	4	21	4	4	3	1	3	15	2	4	2	2	3	13	75
80	4	4	4	4	4	20	1	2	4	1	2	10	4	5	4	4	4	21	1	3	3	5	3	15	2	4	1	2	2	11	77
81	4	4	3	1	5	17	3	3	3	3	3	15	4	5	3	3	4	19	3	3	3	3	4	16	4	4	4	3	3	18	85
82	2	2	4	5	1	14	2	2	4	2	2	12	4	4	4	4	4	20	4	4	4	4	3	19	2	4	4	2	4	16	81
83	1	1	2	1	2	7	2	3	4	2	3	14	4	3	4	4	4	19	4	3	4	3	4	18	3	2	1	3	3	12	70
84	3	3	4	2	3	15	2	2	2	2	2	10	3	5	4	5	4	21	4	2	2	4	3	15	2	2	3	2	3	12	73
85	5	5	5	4	5	24	3	3	5	3	5	19	4	5	5	2	4	20	4	4	5	3	4	20	4	5	2	2	4	17	90

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - BASIC GRADE PHARMACISTS

Appendix 23.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER																															
86	2	1	3	2	1	9	2	1	4	2	3	12	4	2	4	3	4	17	2	1	1	2	2	8	2	3	2	2	2	11	57
87	3	3	4	1	2	13	2	2	3	2	2	11	4	1	4	4	3	16	3	2	3	1	3	12	4	2	1	1	3	11	63
88	2	2	4	1	1	10	2	1	3	1	2	9	4	4	4	4	4	20	2	3	3	1	3	12	4	4	3	1	3	15	66
89	2	4	5	4	1	16	4	1	4	1	2	12	4	4	5	4	4	21	2	2	4	2	4	14	4	5	2	2	4	17	80
90	2	1	5	1	2	11	2	2	2	2	2	10	4	3	5	3	4	19	2	2	3	1	3	11	2	5	2	2	4	15	66
91	4	4	4	4	5	21	5	2	5	3	1	16	2	4	4	4	4	18	2	4	3	4	4	17	3	4	4	3	4	18	90
92	4	1	4	4	3	16	5	2	4	1	4	16	5	5	5	5	4	24	4	4	4	3	5	20	4	5	4	4	5	22	98
93	4	2	5	2	2	15	2	1	2	1	1	7	3	4	2	1	4	14	3	4	5	1	3	16	5	4	2	4	2	17	69
94	4	4	4	1	4	17	2	3	5	2	2	14	2	3	1	1	2	9	2	2	2	3	3	12	4	2	4	3	3	16	68
95	3	4	4	1	3	15	3	3	4	3	2	15	4	2	4	4	4	18	3	2	2	2	2	11	3	4	3	2	3	15	74
96	2	4	4	2	2	14	1	2	3	1	4	11	4	5	4	4	4	21	2	4	2	4	4	16	4	5	2	4	4	19	81
97	3	3	4	2	4	16	2	3	3	2	1	11	4	3	4	4	3	18	3	3	3	4	2	15	3	4	4	3	3	17	77

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - BASIC GRADE PHARMACISTS

Appendix 23.

MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						P.I.A. Score
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy					
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
98	4	4	5	4	4	21	4	2	4	3	1	14	3	5	4	5	4	21	3	3	3	3	4	16	4	4	3	4	4	19	91
99	4	5	4	1	3	17	3	1	4	2	1	11	5	4	3	4	4	20	3	4	5	3	5	20	3	4	2	2	4	15	83
100	3	5	5	4	2	19	4	2	4	2	3	15	4	4	2	2	3	15	4	3	4	3	2	16	2	4	4	3	5	18	83
101	2	4	5	3	2	16	4	2	3	1	2	12	4	4	3	3	4	18	3	3	4	4	3	17	4	5	4	2	4	19	82
102	4	5	5	3	4	21	2	2	4	2	2	12	4	4	5	5	4	22	3	3	4	3	4	17	4	4	2	2	4	16	88
103	4	4	5	3	4	20	3	3	4	2	2	14	1	3	2	2	3	11	3	3	4	2	5	17	4	4	4	3	4	19	81
104	2	5	4	2	5	18	3	2	3	3	1	12	5	5	4	4	4	22	2	1	3	3	2	11	4	4	2	3	2	15	78
105	2	2	4	4	2	14	2	2	2	2	1	9	5	4	2	2	4	17	2	2	2	4	2	12	4	2	2	4	4	16	68
106	4	3	4	1	2	14	2	1	1	1	2	7	2	3	3	4	2	14	2	2	2	3	2	11	4	4	4	3	4	19	65
107	4	4	4	2	4	18	4	1	4	3	3	15	3	3	4	4	3	17	2	3	3	3	3	14	4	4	3	3	3	17	81

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES - PRE-REGISTRATION STUDENTS

Appendix 24.

		ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																							
		Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
	Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	108	3	5	4	2	3	17	2	2	3	2	1	10	4	4	2	3	4	17	3	3	4	2	4	16	2	3	2	2	2	11	71
	109	2	2	4	1	2	11	2	2	2	2	2	10	1	2	4	3	1	11	2	1	3	3	3	12	1	1	2	1	1	6	50
	110	2	5	4	3	2	16	3	3	4	3	4	17	5	4	5	4	4	22	3	2	3	3	4	15	3	1	1	1	1	7	77
	111	3	4	4	1	2	14	4	4	4	4	2	18	3	2	4	2	3	14	4	2	1	4	4	15	2	2	2	1	2	9	70
	112	2	4	4	2	2	14	4	3	4	4	2	17	4	4	4	4	3	19	2	2	2	2	2	10	2	1	3	1	2	9	69
	113	4	5	3	3	4	19	3	4	5	3	3	18	4	5	5	4	4	22	3	4	5	4	4	20	3	3	3	3	3	15	94
	114	4	4	4	3	4	19	4	1	4	2	2	13	4	3	4	4	4	19	2	2	2	3	3	12	3	2	3	2	2	12	75
	115	4	4	4	4	3	19	3	4	3	4	3	17	4	5	4	3	4	20	4	4	4	3	4	19	3	3	3	3	3	15	90
	116	4	5	4	3	2	18	3	2	4	3	3	15	4	4	2	3	4	17	3	3	3	3	4	16	2	2	3	2	2	11	77
	117	4	5	5	3	5	22	3	3	5	3	5	19	5	5	5	5	5	25	4	2	3	4	5	18	2	5	1	1	1	8	92
	118	2	4	4	4	1	15	3	3	2	2	4	14	4	4	4	4	5	21	4	3	2	2	4	15	2	2	1	1	1	7	72
	119	2	1	4	2	4	13	1	1	2	2	4	10	4	4	5	4	4	21	3	3	3	4	4	17	2	2	2	1	1	8	69

PROFESSIONAL INVENTORY ANALYSIS [P.I.A.] - MAIN SURVEY SCORES - PRE-REGISTRATION STUDENTS

Appendix 24.

MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						P.I.A. Score
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
120	2	5	5	4	1	17	3	3	4	3	4	17	2	5	4	3	3	17	2	3	3	3	4	15	2	2	2	1	1	8	74
121	4	3	4	3	4	18	3	3	2	3	3	14	2	2	4	4	3	15	2	3	3	1	3	12	1	5	3	1	3	13	72
122	3	4	3	3	4	15	3	1	3	2	2	11	4	3	4	4	3	18	3	4	4	3	3	17	3	4	1	2	1	11	72
123	3	5	5	2	1	16	1	1	2	1	1	6	5	3	4	3	3	18	4	3	3	3	3	16	1	1	1	1	1	5	61
124	4	4	4	3	3	18	4	4	3	3	4	18	5	4	4	4	4	21	4	4	4	4	4	20	3	3	2	3	2	13	90
125	3	4	4	3	3	17	3	2	5	3	3	16	4	4	4	4	4	20	3	4	3	3	3	16	2	2	2	2	2	10	79
126	2	2	2	2	1	9	1	1	2	1	2	7	4	2	4	3	4	17	3	3	4	3	2	15	4	2	1	2	2	11	59

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES SCHOOL OF PHARMACY LECTURERS Appendix 25.

MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						P.I.A. Score
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
127	5	5	5	4	5	24	3	3	4	3	3	16	2	4	2	2	2	12	3	4	3	3	4	17	4	5	2	3	2	16	85
128	5	3	4	4	3	19	4	1	2	1	1	9	4	4	4	4	4	20	3	3	4	3	3	16	5	5	4	5	5	24	88
129	4	1	5	2	4	16	2	3	3	3	3	14	4	4	2	4	4	18	4	3	4	5	4	20	5	5	2	5	4	21	89
130	5	3	5	3	5	21	1	1	1	1	1	5	1	1	1	1	1	5	1	1	1	3	1	7	5	5	3	3	3	19	57
131	3	2	4	3	3	15	1	1	2	1	3	8	5	5	5	3	4	22	4	3	4	4	4	19	4	4	3	3	3	17	81
132	4	2	4	4	4	18	4	3	4	1	2	14	4	4	4	2	4	18	1	2	2	5	2	12	4	1	4	4	4	17	79
133	5	2	5	4	5	21	2	4	4	2	2	14	5	5	5	5	5	25	2	5	3	5	5	20	5	5	1	4	3	18	98
134	5	4	5	5	5	24	5	3	4	3	5	20	4	4	2	1	4	15	4	4	3	3	2	16	3	5	3	4	3	18	93
135	5	1	3	3	5	17	2	2	3	2	2	11	3	4	4	2	2	15	3	2	2	3	4	14	5	5	4	4	5	23	80
136	5	2	4	5	5	21	4	2	4	1	5	16	2	5	2	4	2	15	4	4	2	5	2	17	5	5	4	5	4	23	92
137	4	1	4	3	1	13	2	2	4	2	2	12	3	2	3	2	3	13	3	4	4	5	4	20	5	5	3	4	5	22	80

PROFESSIONAL INVENTORY ANALYSIS (P.I.A.) - MAIN SURVEY SCORES SCHOOL OF PHARMACY LECTURERS Appendix 25.

	ATTITUDINAL ATTRIBUTES OF PROFESSIONALIZATION																						
	Using the Professional Organisation as a Major Referent						Belief in Public Service						Belief in Self-Regulation						Sense of Calling to the Field						Autonomy						P.I.A. Score
Main Survey Question No.	1	4	11	15	17	Sub-Total	2	5	8	12	22	Sub-Total	6	13	16	20	23	Sub-Total	7	9	14	18	24	Sub-Total	3	10	19	21	25	Sub-Total	MAXIMUM POSSIBLE 125
MAIN SURVEY QUESTIONNAIRE SERIAL NUMBER 138	4	5	5	4	1	19	2	2	2	2	2	10	5	5	2	5	4	21	4	4	4	4	5	21	5	5	5	5	5	25	96
139	4	4	5	2	4	19	5	4	4	2	2	17	3	3	3	3	3	15	3	3	4	4	3	17	4	5	3	4	4	20	88

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) AREA PHARMACEUTICAL OFFICERS Appendix 26.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
1	M	35-39	24		X		
2	M	60+	22		X		
3	M	60+	19				X (Moralistic)
4	M	30-34	22	X			
5	M	55-59	24		X		
6	M	55-59	23		X		

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.)

DISTRICT AND PRINCIPAL PHARMACEUTICAL OFFICERS

Appendix 27.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
7	M	30-34	11		X		
8	M	35-39	19		X		
9	F	35-39	25				X (Pragmatic)
10	F	30-34	17			X	
11	M	40-44	16			X	
12	M	60+	21				X (Moralistic)
13	F	40-44	26		X		
14	M	30-34	22		X		
15	F	45-49	20				X (Pragmatic)
16	M	35-39	11				X (Pragmatic)
17	M	30-34	23	X			
18	M	20-29	22				X (Pragmatic)

MAIN SURVEY - BASIC DATA [EXCLUDING P.I.A.] STAFF PHARMACISTS Appendix 28.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with [2nd Orientation]
19	M	20-29	23		X		
20	M	20-29	22				X [Moralistic]
21	M	20-29	21		X		
22	F	20-29	23				X [Moralistic]
23	F	20-29	20		X		
24	M	20-29	19		X		
25	M	50-54	20				X [Moralistic]
26	F	30-34	23		X		
27	M	30-34	19		X		
28	M	20-29	16				X [Moralistic]
29	F	20-29	14			X	

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) STAFF PHARMACISTS Appendix 28.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
30	F	20-29	11		X		
31	F	20-29	22				X (Pragmatic)
32	M	20-29	21				X (Moralistic)
33	F	20-29	23	X			
34	M	20-29	21				X (Pragmatic)
35	M	20-29	20				X (Moralistic)
36	F	20-29	21		X		
37	F	50-54	20				X (Moralistic)
38	M	55-59	20				X (Affect)
39	M	40-44	22				X (Moralistic)

MAIN SURVEY - BASIC DATA [EXCLUDING P.I.A.] STAFF PHARMACISTS Appendix 28.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with [2nd Orientation]
40	M	60+	19				X [Pragmatic]
41	M	30-34	21		X		
42	M	20-29	22		X		
43	M	20-29	22	X			
44	F	20-29	20	X			
45	M	20-29	18		X		
46	M	20-29	20		X		
47	F	30-34	19		X		
48	F	20-29	24				X [Moralistic]
49	F	30-34	21		X		
50	F	20-29	24		X		
51	F	45-49	25		X		

MAIN SURVEY - BASIC DATA [EXCLUDING P.I.A.] STAFF PHARMACISTS Appendix 28.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
52	F	20-29	20				X (Moralistic)
53	F	20-29	23				X (Moralistic)
54	M	20-29	21			X	
55	F	20-29	19				X (Moralistic)
56	F	20-29	22			X	
57	M	20-29	14				X (Pragmatic)
58	M	20-29	25	X			
59	F	20-29	20		X		
60	F	50-54	—		X		
61	M	30-34	23	X			

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) BASIC GRADE PHARMACISTS Appendix 29.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
62	F	20-29	21				X (Moralistic)
63	F	35-39	18				X (Moralistic)
64	M	20-29	20				
65	F	20-29	22	X			
66	M	30-34	20				X (Pragmatic)
67	F	20-29	24				
68	F	20-29	23		X		
69	M	60+	23		X		
70	F	20-29	23		X		
71	F	35-39	19				X (Affect)
72	M	20-29	17		X		
73	M	20-29	20				X (Affect)

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) BASIC GRADE PHRAMACISTS Appendix 29.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
74	F	20-29	20		X		
75	M	20-29	21				X (Moralistic)
76	F	20-29	17		X		
77	F	20-29	20		X		
78	F	20-29	19				X (Pragmatic)
79	F	20-29	22		X		
80	F	20-29	19		X		
81	M	20-29	23		X		
82	F	20-29	18		X		
83	F	40-44	22				X (Affect)
84	F	20-29	21		X		
85	M	30-34	23		X		

MAIN SURVEY - BASIC DATA [EXCLUDING P.I.A.] BASIC GRADE PHARMACISTS Appendix 29.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with [2nd Orientation]
86	F	20-29	19				X [Moralistic]
87	F	20-29	22				X [Pragmatic]
88	M	20-29	17		X		
89	F	20-29	17				X [Affect]
90	M	20-29	19				X [Pragmatic]
91	F	20-29	21				X [Moralistic]
92	F	20-29	19				X [Pragmatic]
93	M	20-29	20				X [Pragmatic]
94	F	20-29	19				X [Pragmatic]
95	F	20-29	21		X		

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) BASIC GRADE PHARMACISTS Appendix 29.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
96	F	20-29	18		X		
97	F	50-54	19				
98	F	20-29	23				X (Pragmatic)
99	F	20-29	21				
100	M	20-29	21		X		
101	F	20-29	19				X (Moralistic)
102	M	20-29	23				X (Pragmatic)
103	F	20-29	20				X (Moralistic)
104	F	20-29	22				X (Moralistic)
105	F	45-49	17	X			
106	F	20-29	20		X		

MAIN SURVEY - BASIC DATA [EXCLUDING P.I.A.] BASIC GRADE PHARMACISTS Appendix 29.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
107	M	20-29	19				X (Moralistic)

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) PRE-REGISTRATION STUDENTS Appendix 30.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
108	M	20-29	21				X (Pragmatic)
109	M	20-29	13		X		
110	F	20-29	23		X		
111	F	20-29	19		X		
112	F	20-29	21				X (Moralistic)
113	F	20-29	25			X	
114	F	20-29	23	X			
115	F	20-29	—				
116	F	20-29	18		X		
117	F	20-29	20				X (Moralistic)
118	F	20-29	21				
119	F	20-29	20				X (Pragmatic)

MAIN SURVEY - BASIC DATA (EXCLUDING P.I.A.) PRE-REGISTRATION STUDENTS Appendix 30.

Questionnaire Serial Number	Sex	Age Group	Job Satisfaction Score	Primary Management Orientation			
				Pragmatic	Moralistic	Affect	Mixed with (2nd Orientation)
120	M	20-29	18		X		
121	M	20-29	21		X		
122	M	20-29	24		X		
123	M	20-29	24			X	
124	F	20-29	24		X		
125	M	20-29	24		X		
126	M	20-29	18				X (Moralistic)

AUTOMATED LITERATURE SEARCH Appendix 31.

Relevant References

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Leicester Polytechnic
P.O. Box 143, Leicester LE1 9BH, telephone 0533-551551 Ext.2505

Appendix 33.

James Went Room 7.10

School of Management

Head: Frank A Mee, CEng, MIMechE, FIProdE, MBIM

ref

date 5th January 1981

Dear

Research - Professionalism Among Pharmacists

Of interest to many pharmacists is the concept of professionalism and all that it involves. I am currently carrying out research into professionalism and managerialism among hospital pharmacists. A synopsis of my study is attached. The pharmacists in the Trent Regional Health Authority have been co-operating with me and I have been able to collect data from them. One of my interest areas concerns how pharmacists develop their professional values and attitudes. Their work situation is obviously relevant here but equally, if not more important, is the effect of their period in a pharmacy training school. As you are likely to have considerable influence on pharmacy students, it would be of great help to me to take the study a stage further, to collect data on the professional attitudes and values of lecturers in a school of pharmacy. I have discussed this with Dr. Newcombe and he has agreed I might approach you to invite you to complete a short questionnaire for me. I estimate it will take no more than ten minutes of your time. The questionnaire is part of the questionnaire used with Trent RHA and it will only be necessary for you to complete the first part concerned with professionalism.

Your answers will be treated in confidence and will not be disclosed to anyone else without your permission. To assist in maintaining confidentiality you will see I have coded the form and there is no need for your name to appear.

I do hope you can spare ten minutes to help me with this work. I enclose an addressed envelope for you to return the completed questionnaire to me. If all replies could be returned to me by 16th January 1981 it would be a great help.

Yours sincerely,

M. BARNWELL,
Senior Lecturer.

Appendix 33.

M. BARNWELL - SYNOPSIS OF RESEARCH

The thesis examines the professional and managerial attitudes and values of members of an emerging profession. The focus of the research is on pharmacists in the Health Service who have undergone significant changes in their managerial responsibilities over the past decade.

The concepts of professionalism and managerialism are examined and hypotheses generated concerning the inter-relationship of these concepts and how pharmacists, as members of an emerging profession, develop professional and managerial values and attitudes.

Empirical research was carried out into the attitudes and values of pharmacists in the Health Service. Analysis of the data from the research points to conclusions concerning the inter-relationships of professional and managerial values and attitudes in an emerging profession.

CONCEPTS RATED AS HIGHLY IMPORTANT AND SUCCESSFUL

Appendix 34.

Concept	APhO's		DPhO's/Principal Pharmacists		Staff Pharmacist		Basic Grade Pharmacist		Pre-Registration Student	
	N	%	N	%	N	%	N	%	N	%
High Productivity	4	66	9	75	28	65	29	67	14	73.7
Organisational Stability	6	100	8	66	28	65	28	60.9	9	47.4
Service Maximisation	4	66.6	9	75	25	58.1	25	54.3	9	47.4
Pharmacy Efficiency	6	100	11	91.6	37	88.1	38	82.6	17	89.5
Organisational Growth	2	33.3	2	16.7	5	11.6	8	17.4	3	15.8
Patients	5	83.3	12	100	37	86	43	93.5	16	84.2
Managers	5	83.3	5	41.7	17	39.5	7	15.2	6	13
AHA Members	0	0	0	0	3	7	3	6.5	3	15.8
My Hospital	5	83.3	6	50	19	44.2	22	47.8	10	52.6
Me	4	66.6	3	25	24	55.8	19	41.3	10	52.6
Ambition	3	50	5	41.7	13	30.2	17	37	11	57.9
Ability	5	83.3	10	83.3	37	86	37	84.4	16	84.2
Aggressiveness	0	0	0	0	2	4.7	1	2.1	0	0
Skill	6	100	10	88.3	29	67.4	36	78.3	13	68.4
Achievement	5	83.3	4	33.3	26	60.5	32	69.6	11	57.9
Job Satisfaction	5	83.3	10	83.3	38	88.3	43	93.6	19	100
Influence	3	50	6	50	9	20.9	4	8.7	3	15.8

CONCEPTS RATED AS HIGHLY IMPORTANT AND SUCCESSFUL

Appendix 34.

Concept	APhO's		DPhO's/Principal Pharmacists		Staff Pharmacist		Basic Grade Pharmacist		Pre-Registration Student	
	N	%	N	%	N	%	N	%	N	%
Creativity	4	66.6	5	41.7	22	51.2	13	28.3	3	15.8
Success	4	66.6	6	50	27	62.8	25	54.3	15	78.9
Authority	1	16.7	4	33.3	6	14	15	32.6	4	21.2
Change	0	0	10	83.3	0	0	11	23.9	5	26.3
Competition	2	33.3	6	50	0	0	11	23.9	6	31.5
Rational	2	33.3	5	41.7	24	55.8	19	41.3	10	52.6
Risk	0	0	1	8.3	3	4.7	2	4.3	0	0

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