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The Expanded Role of the Nurse

Jillian M MacGuire BA PhD

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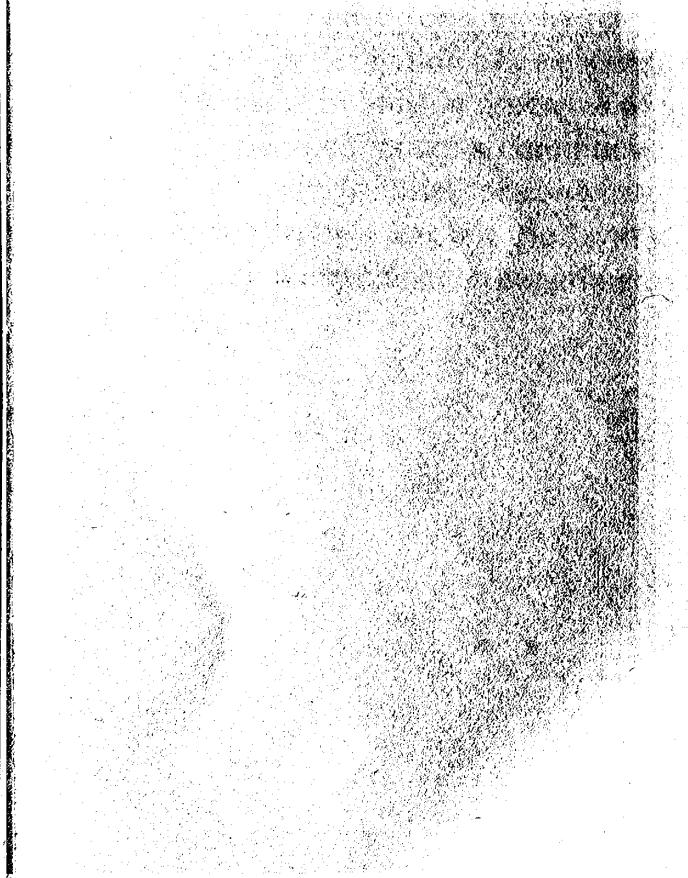
King's Fund Centre
126 Albert Street
London NW1 7NF



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EDITORS' INTRODUCTION

Jillian MacGuire's paper on the expanded role of the nurse was commissioned by the Royal Commission on the NHS in 1977. It complements a wide range of material made available to the Commissioners on the subject of nursing: evidence submissions, background papers, research and discussion with experts.

In recent years, the concept of the expanded role of the nurse has aroused much discussion, some hostile, some favourable, amongst the medical, nursing and administrative professions. This paper explores and documents the vast body of literature covering this area and includes an invaluable bibliography of American and British sources. Issues surrounding the acceptability of the 'nurse practitioner'; the characteristics of her role; the evaluation of the care provided and cost considerations are discussed. The paper brings together in one place, vital information in this area of growing importance.

This is the third in a series of project papers based on the working papers of the Royal Commission on the NHS. We are grateful to King Edward's Hospital Fund for London for giving us a grant to enable this series to be produced, and to the Polytechnic of North London where this project has been based.

Christine Farrell
Rosemary Davies

THE EXPANDED ROLE OF THE NURSE

THE CONTEXT

The emergence of an 'expanded' role for nurses in developed countries is taking place in the context of a common set of problems in the delivery of health care. The most fundamental of these is the shift in the pattern of demand which is both quantitative and qualitative. On the other hand there is increased public demand for the care available both from existing users and from groups who traditionally have not made extensive use of health care facilities such as rural populations in remote areas and ethnic minorities in inner cities. Qualitatively the shift in demand is towards a greater emphasis on 'health care' rather than on 'sickness care' alone, which implies a switch of resources to long term health surveillance, patient education, disease prevention and maintenance care in chronic and terminal conditions. Some fifteen problems are referred to in the literature on the expanded role of the nurse:

1 the shortage of physicians particularly in general practice

2 the maldistribution of health facilities which is being compounded by the grouping of practitioners, the closure of peripheral services and the preference of doctors for working in urban areas so long as these are not inner city areas or ethnic ghettoes.

3 the inappropriate utilization of manpower

4 the rapidly rising costs of health care

5 the flight into specialism of doctors coupled with their lack of interest in preventive and chronic care and their willingness to off-load less 'important' areas of their work to para-medical personnel

6 the restriction in access to health care for certain groups

7 low levels of self-reporting especially among the elderly and among

certain ethnic minority groups

8 the lack of response to health education and preventive programmes

9 low levels of compliance with medical prescription and advice

10 the lack of continuity and fragmentation of care

11 the erosion of the traditional role of the nurse

12 the effect of the feminist movement on the acceptability of the traditional doctor-nurse relationship

13 the excess of **trained** nursing staff in a climate of economic recession

14 the problem of what to do with over qualified nurses

15 the bid for increased power by nurses via professionalisation

While it is not suggested, except perhaps by the most ardent advocates, that the creation of an independent nurse practitioner is a panacea, arguments are put forward to suggest that this new type of health professional may be an important additional resource particularly in the provision of primary health care.

THE EXPANDED ROLE CONCEPT

Terminological confusion has generated numerous articles [8, 70, 71, 73, 113, 130, 134, 140, 164, 172, 174, 219, 240, 255, 257] which raise the issue, among other things, of whether the change in the work pattern of certain nurses should be described as an 'expansion' of nursing or as an 'extension' of medicine. Several authors have found the distinction between expansion and extension a stumbling block. Zornow[273] has defined **extension** as carrying out the same functions in protracted contexts or 'elongating specific already assumed functions to fill perceived gaps'. She defines **expansion** as involving a multi-directional role change which projects 'new components into systems of health care'. Needless to say usage does not

generally conform to these definitions. We find that the terms are frequently used interchangeably though there is a tendency for 'extension' to be used to describe the role of the physician assistant and 'expansion' to be reserved for describing the nurse practitioner role. It seems to me to be useful to reserve the epithet 'expanded' for roles in which nursing training is a pre-requisite and in which nursing skills are drawn upon and to use 'extended' to describe those roles in which nursing is not a pre-requisite and where the tasks are essentially medical. In practice, the nurse who is working as a 'nursing practitioner' combines expanded and extended role elements involving both the expressive aspects of nursing care and the diagnostic judgement of medical care.

The most commonly used descriptive term for the nurse in the expanded/extended role is 'nurse practitioner'. Where she is working without medical supervision she may be described as an 'independent nursing practitioner'. 'Nurse practitioner' is often prefixed by terms indicating the type of patient with which the nurse works, giving rise to titles such as 'paediatric nurse practitioner', 'family nurse practitioner', 'geriatric nurse practitioner' and 'psychiatric nurse practitioner'. Other titles such as 'health associate', 'practitioner associate', 'practice nurse' and 'primex nurse' are also in vogue. Nurses may also take on the more medically oriented role of the 'associate physician'. This is clearly an extended role. Trained nurses are to be found in other types of 'medical extender' roles such as that of the 'physician assistant' or the 'medex' but nursing qualifications are not a pre-requisite and there is no specifically 'nursing' content in their work. Nurses in such roles will have moved further from the traditional nursing role than the associate physician. Apart from differences in recruitment and training the main distinction between the expanded /extended nurse and the extended medical assistant is that the latter is not professionally qualified in his own right and can only work under the direct control and supervision of a medical practitioner or, for that matter, a qualified nurse. The nurse, however, though supervised to varying degrees in the medical aspects of her new role is professionally qualified and can act qua nurse independently of medical supervision[155]. In many states in North America she is now legally entitled to practice as an independent nurse practitioner **without** medical supervision.

The introduction of new para-medical personnel began in the mid-sixties with the almost simultaneous development of training programmes for nurse practitioners and physician assistants. Canadian experiments were a response to having too many trained, married nurses who could not find appropriate work [31]. The American training programmes for physician assistants, set up in the wake of the pioneering demonstration at Duke University, were a way of utilizing the skills of men being discharged from the medical corps as the fighting in Viet Nam was scaled down [66,155].

Initially, programmes of training were restricted to ex-medical corpsmen who had at least two years of service. This source of recruitment has, of course, now dried up but the number of training programmes has proliferated. A variety of candidates, usually with some relevant training or experience and including nurses, are currently accepted [155]. There seems to have been no similar pool of potential trainees to trigger off the nurse practitioner movement as such in America though reference is made to the high drop-out among qualified nurses and dissatisfaction among those trained in baccalaureate programmes [33]. It began very quietly, as described in a low key article by Ford and Silver[75], with the training of paediatric nurse practitioners at the University of Colorado in 1965. A shortage of paediatricians had been identified and the care given to children in the clinic setting was regarded as less than adequate. Nurses were trained specifically to improve the general level of care by taking over well-child management and freeing paediatricians to deal with the acute or problematic cases. In Nuckolls words [181] 'they cracked open the lid on what some considered a Pandora's box of new roles for nurses'. Paediatric nurse practitioners were soon followed by nurse practitioners in adult outpatient clinics[11,22,23,46,52,138], by medical nurse practitioners[55,220,270] by nurse practitioners in private medical practices [28] and pre-paid practices[132], in chronic care clinics[36,210,211], in geriatric care [26], in psychiatric settings[102, 159,171], in occupational health settings[17], in allergy clinics [111], in the care of the new-born[43], in prison medical care[93], in medical family planning[192], domiciliary visiting[152], home nursing[117], in midwifery [199], in nursing homes[203], in public health nursing [37] and in schools[139]. These have all been developments in clinic or practice settings in which the nurse takes on some part of the care for particular categories of patient.

Another, and perhaps more dramatic, aspect of the development is the progressive introduction of the nurse practitioner into screening, first contact decision making and primary care. Jackson and Seeno[108] and Albin *et al* [3] describe the role of the nurse in emergency suites as the 'first contact' decision maker. It is the nurse, working within protocols, who makes the decision about the acuteness of the presenting symptoms and about the most suitable disposition of the patient. Jackson and Seeno also give an account of the way in which nurses are involved in the screening of patients in the same setting. These tasks were previously carried out by interns. These are, perhaps, the first examples of diagnostic decisions being made by nurses. Hospital clinics run by nurse practitioners are described by Bessman[23]. Patients are assigned either to the nurse practitioner clinic or to the physician clinic at random. Other articles refer to clinics in which patients are randomly allocated to nurse practitioner care or to physician care[52,112,125,270 among others]. Many accounts describe the first contact/total care given by nurse practitioners in medical practice settings[60,132,213,215,229,230,231]. Scherer, in a follow up study of McMaster University trainees, has reported a high proportion of nurse practitioners giving total care for certain cases and considerable involvement in decision making about the appropriate assignment of new patients[215]. Increasingly nurse practitioners are providing the only health care for certain communities[27,41,62,90,121,133,179,189]. While there is some link with a doctor, in the main the nurse practitioner is providing primary care on her/his own. The paper by Brown[27] gives a vivid account of what this can mean in rural Saskatchewan when your district covers 600 square miles.

A further development is that of nurse practitioners in 'independent' practice either complementing the services of doctors in an area or, more usually, providing the sole health care service for a small town, rural area or ethnic minority group [28,89,118,173,197]. Commenting on this 'independent' practitioner role in 1977, Simms has stated that, although more than 45 million Americans live in areas where health care systems are non-existent or inadequate, independent practices are still not very frequent[224]. The most recent development appears to be the expanded/extended role in the in-patient setting [148,158,205,218,159]. It would seem that in whatever setting doctors and nurses are to be found, nurse practitioners are now also to be found. Fortunately they seem to be prepared, in some cases, to work

where doctors are reluctant to practice.

It is estimated that by 1977 there were over 100 training programmes in America for various types of nurse practitioners at a variety of levels, baccalaureate, masters and others, which produce 1,600 graduates a year[129] In part the rapid increase in the number of nurse practitioner programmes must be seen as a reaction to the medical-extender programmes. They stem from a realisation by professional nursing hierarchies that nurses would miss out in the struggle for power if physician assistants began to take up an intermediate position between doctors and nurses[255]. What is regarded as the indiscriminate extension of training courses has been criticised sharply by both doctors[91] and nurses[255]. It is clear that what began as a movement to utilize the skills of nurses in settings in which physicians were in short supply, such as rural areas and inner cities, for types of patients with which doctors did not choose to deal, such as indians, eskimos, blacks, spaniards, low income groups and what are so graphically called the 'medically indigent', or with low priority patients such as children, the elderly and the chronic sick, has now been extended to all types of setting; community, home, nursing home, private practice, specialty clinics, out-patient clinics and hospital and to all types of patient.

Is the 'nurse practitioner' simply a name for tomorrow's 'nurse'? Unless there is any rationale for restricting this role to particular settings or to particular types of patient it seems inevitable that this will be the trend. Will such practitioners simply be nurses by any other name or will there be real differences in what they do, in their relationship with doctors and patients and in the health of the patients they care for? The following analysis of the research literature gives some indication of the likely trends though it must be recognised that once a new development moves from the introductory phase into the accepted mode and has to make use of all-comers rather than selected entrants some of what appeared to be significant gains may well prove to be no more than experimental effects.

RESEARCH FINDINGS

Writing in 1975, Weston [255] criticised the evaluation of the nurse practitioner role as being 'principally anecdotal' and concentrating solely on the legitimisation of the role. Though there is an extensive literature on the subject, major evaluative studies other than the Colorado University and McMaster University series are only now beginning to be published.

MODELS

Before discussing these, it is important to describe two distinctly separate models which lie behind not only the views expressed by commentators about the development of the extended/expanded role but also behind the research which evaluates the 'success' of these roles in practice.

Model A

In this model, nursing and medicine are seen as two separate and distinct disciplines. While they may share a common body of scientific knowledge, medical practice and nursing practice are not sections of the same continuum. In its most simple-minded form we are offered little more than the care versus cure dichotomy [143]. There is an extensive nursing literature on the unique role of the nurse and on the specific structure, process and outcomes of 'nursing' as opposed to 'medical' care. Commentators operating within the framework of this model are concerned about the possibility of nursing functions being lost from the new role in favour of the assumption of medical tasks. Researchers are concerned to demonstrate better or more appropriate 'nursing' input, with the effectiveness of the nurse in instituting 'nursing' treatment plans and with 'nursing outcomes'. There is a concern to demonstrate 'improved' outcomes.

Model B

Model B is rooted in the notion that 'health' care and 'illness' care require separate types of skills, different sorts of interventions, and that there are insufficient physicians to man health care programmes. There is a universe

of tasks to be carried out to maintain the health of communities and to care for and/or cure people once they have become patients. Who does what is considered immaterial provided they are trained for the task, competent, acceptable to patients and achieve the same standards. Research aims to demonstrate that the nurse, with proper training or working with protocols in specific situations and with defined patient groups, is 'as good as' or at least 'no worse' than the doctor.

DEVELOPMENT OF EVALUATION

Historically, evaluation of nurse practitioners and associate physicians began with studies designed to demonstrate that the nurse could make first contact decisions, given appropriate training, as well as could the physician. Following closely on these were studies of the acceptability of the nurse practitioner in general populations, among populations out of reach of health care facilities, among clinic and practice patients, among physicians and among nurses themselves. Studies which concentrate on the outcome of different processes of delivery of care began to appear in the early seventies. Systematic and analytical accounts of what nurse practitioners do and the effect of different settings on their work patterns are only now being published. The perceptions, attitudes, expectations and background of extended/expanded nurses is also receiving attention particularly from researchers involved in educational programmes. There are several accounts of training programmes as such but these are almost entirely descriptive. Research into the cost effectiveness of the employment of nurse practitioners has only recently been instituted though some inference may be made from studies showing how the pattern of doctors' work has altered in clinics and medical practices where nurse practitioners are employed.

The two most well known and widely reported programmes of training and evaluation of nurse practitioners are those introduced by Silver and Ford at the University of Colorado [12,58,60,75,221,222,223] in 1967 and those developed by Spitzer, Kergin and others at McMaster University from 1971 [45,213,215,229,230]. The equivalent in terms of physician assistant training and evaluation is the programme organised at Duke University in the late sixties [66,155].

Ignoring the historical sequence in which the research has been undertaken the findings can usefully be summarised under the following headings:

(a) acceptability of the nurse practitioner role

(b) characteristics of nurse practitioners

(c) settings and structures

(d) work pattern

(e) process and outcome

(f) cost considerations

Specific studies tend to focus on one particular area but the material presented usually has something to contribute under the other headings.

(a) Acceptability of the Nurse Practitioner Role

Studies of the acceptability of the nurse practitioner began with the parents of children being treated by nurse practitioners in paediatric clinics[58] – a captive population – rather than with studies of the general population. Studies of acceptability to other patient groups have followed as the nurse practitioner model has been introduced into other settings and most of the research studies reviewed have considered the question of acceptance by patient groups. Several studies have concentrated on the acceptance of the nurse practitioner by physicians, both as an idea and in practice[56,83,97,129,136]. An important group of studies has investigated the extent to which the nurse practitioner is acceptable to general population groups receiving traditional forms of care or no health care at all[41,45,105,147]. More recently studies have turned to acceptability among colleagues[200].

1 Acceptability by the General Population

Reports of such studies are not frequent and, in any case, have usually

been confined to rural settings where access to health care facilities is poor and where the introduction of a nurse practitioner could be seen as offering a distinct improvement in service on the current situation.

Litman [147] has argued that there is 'little empirical information on how well accepted role extenders may be in the eyes of those they intend to serve — i.e. the non-urban public'. In his own study of a rural area he found that only a small proportion of households was not registered with a family doctor. Access to specialist help was more difficult. He found a warm response to the idea. Respondents were prepared to allow non-medical staff to do routine history taking and physical examinations but there was opposition to the idea that nurse practitioners or physician assistants should make first contact decisions or deal with emergencies. The greatest opposition was to the idea of such persons providing maternity services and routine deliveries. It is also worth noting that respondents, like many physicians, did not distinguish between the 'expanded' nurse practitioner and the 'extended' medical assistant. For the general public they belonged to the category of non-doctors. Chenoy [45] confirms the generally favourable attitudes held by rural populations. He was, however, researching in a community where the doctor/patient ratio was significantly lower than that for the state (Ontario) as a whole. In health maintenance and sickness surveillance, adults responded favourably to the idea of some aspects of primary care being provided by nurses. In crises there was a distinct preference for care by a doctor. Cardenas [41] reporting on isolated rural communities in Saskatchewan, where there was no resident doctor, writes that 'the residents of the four communities were quite enthusiastic about the arrival of the nurse practitioner in their towns. The indication was that they would make use of any health care services the nurse could provide'. Hurd[105] reports a demand from Indian communities for primary health care to be provided by nurses **independent** of medical supervision.

2 Patient Acceptance

Response by patients to care given by nurse practitioners has been uniformly favourable. Those familiar with patient satisfaction studies will not be surprised and will not necessarily regard this as incontrovertible evidence of the 'success' of the nurse practitioner. However, there are some

important indications in the literature that the high level of patient acceptance is associated with outcome variables in positive directions. This aspect of patient acceptance will be discussed more fully in the section on outcomes.

In some of the reported studies patients have been able to choose whether to be seen by the nurse practitioner or the physician, while in others they have been assigned to the care of the nurse practitioner after an initial assessment by the physician[52,112,125,210,211]. In many of the more carefully designed studies, patients have been randomly allocated to either a nurse practitioner or to a doctor. The most widely reported of these are the 'Burlington randomised trial' [230] and the 'Southern Ontario Trial' [229] both part of the McMaster University evaluation programme. Many other studies have been designed on this model [72,136,137].

On the whole, levels of satisfaction among patients being seen by nurse practitioners appeared to be higher than among those being seen by doctors. Not the least important element in patient acceptance is the accessibility of the nurse [36,137,145]. Patients report that it is easier to see the nurse practitioner than the doctor, that they are more likely to see the same person on repeat visits and that the nurse practitioner has more time for them than has the doctor. Increased chances of seeing the same person is a particular feature of clinic and hospital outpatient settings which have been re-organised to provide care by nurse practitioners [125,210]. The nurse practitioner in these settings is a permanent staff member of the unit in contrast to the interns who only stay for short periods. In practice settings special arrangements are often made for the patient to see the same nurse and to have some means of contacting the nurse out of office hours [44,189]. Only one study reports an attempt to carry continuity of care through from the community to the hospital [88]. As part of the Medicare facilities in Greater New York nurse clinician co-ordinators were introduced in 1970. Their main goal is to secure patient compliance with the physician's treatment plan and to give supportive counselling to patients with psychosocial problems. Though one of the aims is to reduce levels of hospitalisation, when patients do have to be admitted they are visited by the nurse. The paper does not describe the outcome of this experiment only the rationale for its introduction.

Patients' perceptions of the time nurse practitioners spend with them is borne out by the comparisons between the work pattern of doctors and nurse practitioners in the same setting. In all studies where length of consultation time has been reported the nurses see fewer patients per patient contact hour. This could be interpreted in a number of ways. Nurses may be less efficient than doctors in managing a consultation or they may be concentrating on aspects of consultation which the doctors omit because of lack of time.

While patient satisfaction cannot be taken as an adequate measure of quality of care, one of the elements in compliance appears to be the extent to which patients feel they are understood and are given a proper hearing[20]. Longer consultation times do give the nurses more opportunity to develop rapport with patients enabling the latter to bring a wide range of problems into discussion[270].

It is worth noting, in passing, that many nurse practitioners have, in their training programme, received more direct teaching and preparation for the specific tasks that are delegated to them than have many doctors. They have been taught interviewing, assessment and recording techniques and about the difficulties of communicating information to patients. Their greater acceptability to some patients may stem in part from the accessibility factor – the feeling that the nurse has time for them – but also in part from the fact that they have received a more adequate preparation in inter-personal skills.

3 Acceptability to Doctors

Acceptability to the medical profession as a whole, rather than the acceptance of nurse practitioners by doctors who employ them, does not appear to have been widely studied. In general, doctors, like patients, do not differentiate between nurse practitioners and physician assistants[129]. Coye and Hansen[56] found that 61% of physicians believed that some form of mid-level practitioner was needed and 42% were prepared to use such a person in their practice. Lawrence et al [129] found that 91% of physicians approved of the idea and 37% would actually employ someone. Yankauer[267] also found that the majority of physicians favoured delegation of some

tasks to 'allied care providers'. The delegation of well-patient and preventive care is accepted by most physicians. They are also prepared for nurse practitioners to carry out history taking and physical examinations[129]. In a recent study by Heiman and Demsey some of the correlates of delegation to nurses have been explored [97] indicating that the two major variables are the nature of the task and the degree of illness of the patient. They describe four task areas; taking a history, performing a physical examination, ordering laboratory tests and deciding on treatment plans. History taking is seen as an appropriate activity for nurse practitioners even in severe cases. Deciding on treatment plans is least acceptable even in the case of basically healthy patients. They state 'A critical issue in defining the extended role of the nurse appears to be not so much the nurse's ability to function at a high technical level but the attitudes of nurses and physicians towards allowing the nurse real independence and power in clinical nursing decision making'. Medical reaction where nurse practitioners are actually employed appears to be favourable though the degree of delegation varies in different settings and between individual physicians.

4 Acceptability to Colleagues

A study by Reed and Roghmann[200] found that nurses were more receptive to the idea of nurse practitioners than were doctors. Heiman and Demsey[97] showed that nurses' views on delegation were similar to those of physicians in that the nature of the task to be delegated was more important than the severity of the patients' condition. Nurses were more likely to favour greater degrees of delegation than were doctors. None of the studies dealt with the relationships between the nurse practitioner and other nursing staff in work situations.

(b) Characteristics of Nurse Practitioners

Many of the descriptions of training programmes have emphasised the selective nature of the recruitment [134,223,215,256]. Recruits are, by definition, older than other nurses because they are required not only to have qualified as a registered nurse, but also to have had experience usually in the type of setting in which they will be expected to work [215]. Recruits are often drawn from among older married women who, once they have

come back into employment, exhibit more stable employment patterns than younger unmarried women[215].

There are differences on standard personality measures between nurse practitioner trainees and other nurses[256]. These traits are likely to make them more successful in the nurse practitioner role than would be nurses of the more usual personality profile. Nursing students in general are higher on the Edwards Personality Preference Scale on nurturance, deference, order, abasement and endurance than are nurse practitioner students. The latter are higher than ordinary nursing students on autonomy, exhibition, dominance, change and heterosexuality. In passing, this was a pattern found to occur among health visitors and health visitor students in this country and to differentiate them from other nursing students†. On the California Personality Inventory nurse practitioners have more in common with women in medical school, social work and graduate studies and share common characteristics with other women professionals. They are more like those groups than they are like other nurses. These findings indicate not only that those who become nurse practitioners are highly selected but also that the role offers a setting in which nurses with such personality traits are more likely to be able to contribute. It will be remembered that one of the rationales for the development of the nurse practitioner role is that it was hoped that nurses who found working in hospitals unsatisfying would be drawn back into employment and find enhanced satisfaction in a different type of relationship with both doctors and patients[32].

Nurse practitioners have highly positive attitudes towards their role and expect that they will receive both material recognition for the extended nature of their functions[144] and intrinsic rewards from the greater contact with patients, expansion of nursing care and more involvement with the health care of patients and populations[144]. Many nurse practitioners are somewhat disillusioned by the extent to which their role is limited in practice[144] while others find that the role is at least as demanding as they anticipated[144]. Williams[260] has drawn attention to the importance of

† Singh, A. and MacGuire, J., 'Occupational Values and Stereotypes in a group of trained nurses', *Nursing Times*, Oct. 21, 1971, pp. 165–168.

the setting in which the nurse practitioner works and the effect that this may have on the extent to which the nurse practitioner is able to contribute of her new expertise. Bullough has not found any real evidence of increased work satisfaction among nurse practitioners[32] but comments that the role does seem to be more interesting and challenging than traditional nursing roles. Nurse practitioners do not see themselves as substitute doctors. They see the nurse practitioner role as essentially a nursing role in which they can develop and expand nursing skills to the benefit of the patient[143].

(c) Settings and Structures

Research on the effect of the setting in which the nurse practitioner works is only in its early stages. Williams[259] is particularly interested in this question and there is evidence from other studies, when taken together, that the role development is related not just to the views of the doctors, patients and nurses but to the characteristics of the setting in which the role is being performed. Williams relates the lack of consideration given to this variable to the fact that early studies on practitioners at work were limited to describing the role in one setting or in settings that were quite similar.

It is very clear, however, that there are fundamental differences between the role of the nurse practitioner 1) in the hospital out-patient setting, 2) in the medical practice setting and 3) in the independent nursing practice setting. The nurse practitioner in the hospital out-patient setting and in many clinic settings is likely to work with protocols which define exactly what she may do and at what point she must consult or seek direction from the physician. She is severely limited in autonomy and does little more, in some settings, than obtain histories and assess health status. In specialty clinics she may take on the maintenance care of a group of patients who are in the stable phase of their illness. Patients treated by nurse practitioners in these settings are a highly selected group [125].

In most studies of medical practice settings nurse practitioners have been involved in primary care and in the complete management of well patients. Only one of the studies dealt with the employment of nurse practitioners in nursing homes [203] where they were giving primary health care to the

residents in the home. This appeared to be a difficult role to sustain and Richard and Miedema argued that organisational changes would be necessary if the nurse practitioner is to be effectively utilised in this role.

There are significant differences **between** practice settings identified by Williams as being 'the history of the practice unit, the nature of physician back-up, the presence of other family nurse practitioners, the extent to which the setting is orientated to change, the size of the setting, the magnitude and type of patient load, and the levels of satisfaction with the family nurse practitioner as a primary provider'. Such factors will affect the opportunity of the nurse practitioner to realise the full potential of the role. Such considerations also enter in to the evaluation of the care given by the nurse practitioner, in particular if comparisons are to be made of nurses practising in different settings. It may be difficult to evaluate the care of the nurse practitioner as such since she is part of a team with a complex pattern of inter-relationship with the doctor. What is being evaluated is often 'team' versus 'solo' care rather than 'nurse practitioner' versus 'medical' care.

Few accounts of 'independent' nursing practice were found but it is clear that such settings are fundamentally different from the hospital or medical practice settings.

(d) Work Pattern

As Yeomans has pointed out, relatively few studies describe in any systematic way what nurses in extended/expanded roles do[270]. There are many descriptive accounts of what individual nurses or a small number of nurses do[4,17,27,62,67] but in the absence of comparative data they do not demonstrate what differences there are between the work patterns of 'traditional' and extended/expanded nurses. There is, however, rather more information on the way in which nurse practitioner patterns differ from the work patterns of the physicians with whom they collaborate. The 'who does what' aspect of the extended/expanded role is not the major concern of researchers within the framework of Model B. They are more interested in outcome measures which demonstrate the effect of different types of intervention or intervention by different types of professional on patient

outcome. Those working within the conceptual framework of Model A are more likely to ask 'what does the nurse practitioner do?', 'does her work pattern differ from that of the traditional nurse?', 'is what she does nursing or is it alternative medicine?' and 'if it is the latter' why recruit nurses to do it?'.

Lewis et al[138] summarising the literature on the expanded role in 1969 estimated that less than five per cent of the accounts had data describing the performance of nurses. Since then a number of studies have been reported in which some attention has been paid to what the nurse practitioner does and the ways in which her work pattern differs from other nurses and from doctors. Taylor[240] in an article on the 'genesis' of the nurse practitioner role states that the two basic elements are:

1 obtaining health histories from patients,
and
2 assessment of the patients' health status.

Other things which may or may not be included in her pattern of work are:

1 acting as the primary contact

2 giving primary care

3 planning for health maintenance

4 teaching and counselling

5 seeing and caring for patients with self-limiting diseases

6 following a caseload of patients with chronic illnesses

7 organising and planning programmes for illness detection for large groups of people.

This is essentially a description of the 'role' of the nurse practitioner rather

than a task list as such.

Yeomans [270] in a 1977 review of the literature concludes that studies have shown that the major shift in the activities of the nurse in an expanded role are in the performance of physical examinations and history taking. Silver and Duncan concluded that the paediatric nurse practitioner worked as an associate to the physician providing more direct health care to children than the regular nurse[222]. A study of family nurse practitioners by Spitzer et al showed that nurse practitioners and doctors shared an area of work, particularly in the field of patient assessment and health maintenance[230]. Research also demonstrates that nurse practitioners spend a lower proportion of their time in clerical and other non-patient contact activities than do regular nurses [169,189,221,229,270]. While more time spent in patient contact may not necessarily mean better care it does mean either that patients who would not otherwise be seen are seen or that patient consultations are longer allowing for more teaching and counselling to take place. More of their encounters with patients are on a one-to-one basis than are those of the traditional nurse[270].

This is one of the major characteristics of their work pattern which differentiates them from other types of nurse and brings them closer to the work pattern of the practice doctor in which one-to-one consultations form so major a part. The content of consultations, however, is rather different [270] and it is generally concluded that the nurse practitioner is not only acting as a 'substitute' or 'alternative' doctor but is also providing elements of patient care which would not otherwise be provided.

Studies have usually compared traditional nurses and nurse practitioners working in the **same** kind of setting on a 'before and after' type basis with the same person being employed. Comparisons between nurse practitioners and doctors have usually been in situations where the nurse practitioner has been taken on because the practice is saturated. Obviously the physician must delegate some duties to such a person to justify having her in his practice. Inevitably his work pattern must also change. In many cases clinics were reorganised expressly to create a specific area of work for the nurse practitioner. It is not surprising, therefore, that differences in patterns of work should be identified. Yeomans[270], reporting on a study of

nurses assigned to a large military hospital, suggests that even where nurse practitioners are working alongside traditional nurses the difference in work pattern is sustained. It is not so much that the nurses do different things but that the nurse practitioners allocate their time on a different priority basis and are more systematic in their assessment and educational functions. She interprets her evidence as suggesting that nurses in expanded and traditional roles are differentiated by the complexity of the tasks they undertake and by the level of clinical judgement required. The same might be said about the differences between the nurse practitioner and the doctor. He retains the yet more complex tasks and requires a yet higher level of clinical judgement.

In a follow up study of the 99 nurses and 79 physicians who participated in the first five years of the McMaster University programme[215] Scherer et al outline the changes in work pattern which have taken place. Assignment of patients in nearly three quarters of the practices was made jointly by nurse practitioner and physician. A majority of the nurses 'provided total care with respect to obesity, contraception, marital counselling and established hypertension. In health maintenance, the majority of the nurses provided total care for well-child care, prenatal care, well-female care, school physical and annual physical examinations, and geriatric surveillance'. Two-thirds of the doctors reported that their roles had changed, that they had the opportunity to spend more time with patients with complicated medical problems and needed to give less routine patient care. On average practice sizes had been increased by 14%.

There is no evidence from any studies to show that there has been a major shift of resources from one category of patient to another within a practice though the delegation of 'routine' care to someone with more time per patient is suggestive. In some areas health care is being given by nurse practitioners where no health care was available before. Miller[166], in relation to the preventive care of children in particular, has pointed to the lack of zoning in America which he sees as essential if equality of access is to be achieved. In his view the system of contiguous catchment areas for preventive services is the key to the success of the child health services in Western European countries.

None of the studies explores the question of attachment versus geographical assignment directly. Most nurse practitioners who have been studied seem to be clinic or practice based rather than geographically based. Where nurse practitioners are employed in practices that serve rural areas 'patch' and 'practice' will tend to be coterminous but in urban areas this may not be so. Independent nurse practitioners providing sole care in small towns in America appear to work very much on a geographical basis assuming responsibility for the health care of the whole population. Nurse practitioners in out-post or out-reach clinics among ethnic minority groups, in low income housing projects and in remote rural areas clearly serve defined geographical areas. They too are responsible for a whole population in an area rather than for the patients of a particular doctor. The fact that these communities see the nurse practitioner as 'their' nurse and that he/she lives and works within the community is fundamental to the success of such nurses in gaining the confidence of people who fail to seek medical assistance, not just because of problems of access, but also because of their traditional beliefs about health and sickness[20].

None of the research papers consulted went into the question of the command nurse practitioners had over resources. They could order tests and X-rays, in some cases, without medical authority but the prescription of medication and medical therapy is dependent on the legal position of the nurse practitioner which differs from state to state. Increasingly, the legal right of nurse practitioners to prescribe is being secured and it can be argued that the extension of 'independent' practice is dependent, in large measure, on the legalization of prescribing. However, as Alford and Jensen argue[4] independent nurse practitioners are providing a service in which time, care, counselling and education are the main elements. Part of the role is to help patients to find an appropriate physician when needed. Nurse practitioners do not see themselves in direct competition with physicians in control over medical resources. None of the studies even mentions control over hospital beds. Access to services of that kind appears to be via the physician either directly from within the practice situation or by referral to the physician in the case of independent practitioners or practitioners working in out-reach and out-post situations.

Similarly, extensive studies of 'what physician extenders do' in practice

are only beginning to be published[85]. Glenn and Goldman refer to articles by Coye and Hansen[56], Stoneman[237], Braun[24], Silver and Duncan[223], Coulehan et al[55], Ciblar et al[50], Merenstein[165] and Riddick et al[204]. In passing, these authors consider nursing practitioners and physician assistants to be inter-changeable. Riddick et al looked at what tasks physicians were prepared to delegate to physician assistants and nurse practitioners. Glenn and Goldman's work indicates that the actual task delegation patterns conform with the 1969 attitudes of physicians as to which tasks 'could and should' be delegated to physician extenders. Lawrence et al [129] reporting in 1977 give a 32-item list of tasks and the proportion of doctors who would be prepared to delegate them to trained nurse practitioners. The eight items making up the short form of the scale are as follows:

	Percentage willing to delegate
Take and record social history	90.8
Conduct review of systems	81.2
Examine ear with otoscope	67.5
Counsel patients with minor psycho-neuroses	55.4
Perform physical examination with physician confirming heart and lung findings	49.7
Perform general physical examination in absence of physician	39.4
Diagnose and treat acute otitis media	30.6
Initiate drug therapy	23.9

As McTernan has pointed out 'to the outside observer the roles of the nurse practitioner and physician assistant may appear to be identical'[155]. The evidence suggests that both physicians' expectations and work patterns are very different from one setting to another. The nurse practitioner may be much like the physician extender when working with protocols. When she is working as an independent practitioner or as a family practitioner in a medical practice there are more differences than similarities. Elements of task delegation may be the same but the role is rather different.

(e) Process and Outcome

It is in the choice of process and outcome measures that the influence of the two basic frames of reference, or models, is most clearly shown. Weston[255], arguing within the framework of Model A, states that there have been no studies of nursing process and outcome in relation to nurse practitioners. Sackett et al[213], from within the framework of Model B, maintain that it is the overall health outcome for patients which is important. While a great deal of the discussion about the role of the nurse practitioner has taken place within the former framework most of the research dealing with process and outcome measures has taken place within the framework of Model B.

A variety of process and outcome measures has been used in various studies. Measures used include:

1 accuracy of assessment of health status
2 coverage of health history
3 clinical judgement/diagnostic ability
4 appropriateness of treatment decisions
5 length of consultation
6 continuity of patient/practitioner relationship
7 quality of records
8 appointment keeping including completion of tests and treatments
9 content of consultation
10 understanding of disease process
11 acceptability
12 compliance with medical prescription
13 mortality
14 morbidity
15 hospitalisation
16 complaints by patients

17 specific physical status goals e.g. weight/length of infants at one year

18 general physical function

19 emotional function

20 return to work, days lost through sickness etc.

21 general social function

22 reaching new groups of patients, including changes in self-referral rates, take up of contraceptive methods, changes in priority and changes in practice size

23 doctor work patterns

24 appropriateness of patient behaviour

These measures have been presented as a single list as they are sometimes used as process measures and sometimes as outcome measures. The list is probably not exhaustive but gives an indication of the range and type of measures employed.

Evaluation began by demonstrating that nurses could substitute safely for doctors in first contacts with some categories of patient. They were just as able as the doctor to assess the degree of well-ness or illness of the presenting patient, to obtain health histories, to ascertain what was wrong with the patient and to recommend appropriate treatment. These findings, first established in relation to paediatric nurse practitioners in clinic settings[60], have been separately demonstrated for triage nurses[3] and for a variety of other types of nurse practitioner[23,189]. Summarising this aspect of the research, Bailit[14] describes the general methodological approach as being for the nurse practitioner to a) examine the patient, b) collect a data base, c) define a problem list and d) make recommendations for referral or treatment. The physician then examines the same patient to determine whether or not the nurse practitioner has missed problems of significance. 'Results suggest that nurse practitioners are indeed able to detect abnormal signs and symptoms and to completely manage care in both well-child and minor illness situations' [14].

The findings of further studies began to suggest that not only could nurses discriminate between patients as adequately as could doctors but that the

process whereby they gave care was in some ways more effective. In all studies where length of consultation time has been measured, nurse practitioners, on average, spend more time than doctors with each patient[23,36,44,138]. It may, of course, be the case that more time does not mean better care but the fact that nurse practitioners are able to take longer over patient assessments[36], to pick up aspects of the patient's condition that the doctor has missed [43], to take longer over teaching and counselling patients [210], to give more emphasis to this aspect of the consultation[112], to keep better records[175] and are able to provide greater continuity in care[23,112,210] have been interpreted as evidence of 'better' care. That patients who have experienced care by both doctors and nurse practitioners tend to prefer care by the latter[58,137] is also seen as indicative of the greater appropriateness of the process of care giving. Studies both in medical practice settings[44,67] and in outpatient settings[72] also indicate that the nurse practitioner's patients are more likely to return for follow-up consultations and less likely to break appointments than are the physician's patients. Patients are also more likely to comply with treatment programmes instigated by nurse practitioners than with those initiated by doctors[43,67]. Lack of compliance with medical prescription is held to be one of the key problems facing the health care services[20,29,117] and if the nurse practitioner is able to secure a more appropriate response on the part of patients this would be an important breakthrough. The data also indicate that nurse practitioners are better at getting information across to patients than are doctors. Understanding the nature of one's condition is related to compliance though it is only one element among many. The apparent success of nurse practitioners in increasing the level of patient's knowledge and understanding, in achieving higher levels of compliance, greater levels of acceptability and better rates of appointment keeping may all be a function of the greater time they are able to devote to patients. I know of no study which has systematically explored this question. It is to be anticipated that as the nurse practitioner becomes more generally accepted and her case load increases, she will be unable to devote so much time to each patient and that her intervention will show decreasing returns.

Sackett et al have argued that process measurements are meaningful only after proper outcome studies have shown that the clinical services under

scrutiny are effective and safe[213]. The research question here is not whether the nurse practitioner makes the same sorts of judgements as the doctor or achieves better rates of compliance and call-back but whether the patients she has cared for are demonstrably as well as the patients cared for by the doctor. These studies are analagous to the randomised control trial used in clinical studies. The Burlington Randomized Trial and the Southern Ontario Trial, both part of the McMaster evaluation programme, indicate that the health status of patients who have been cared for by nurse practitioners is, at least, no worse than that of patients cared for by doctors. In the Burlington Trial[213] measures of patients' physical, emotional and social function were made before the introduction of nurse practitioners and patients were randomly assigned to the care of a doctor or to a nurse practitioner. After a year of receiving either nurse practitioner care or conventional care, similar levels of physical, emotional and social function were found in both groups and there were no significant differences in mortality or morbidity. Sackett et al acknowledge that a weakness of the design is the absence of a 'no treatment' control group and that it is possible that neither nurse practitioners nor medical practitioners have any **critically significant** impact on health outcomes. They clearly do not believe this to be the case and do not consider the implications of such a finding.

Studies of patients with chronic conditions suggest that outcomes may be better for groups cared for by nurse practitioners. Lewis and Resnik[137] describe a study in which patients were randomly allocated to a medical clinic and an experimental clinic. After a year there were no significant changes in the control group but there were significant changes in the experimental group. There was a reduction in the frequency of complaints about services, a reduction in the rate of seeking care for minor complaints, a shift in preference for nurses to do some things rather than doctors and patients preferred explanations to come from nurses. Broken appointments were twice as high for the medical clinic and patients spent more days in hospital. The authors do raise the question of whether the results might be a placebo effect brought about by changes in the organisation of care. This study was replicated with more attention being paid to the different processes of care. There was again a significant increase in the number of patients who had returned to employment among those who had attended

the nurse clinic. There was actually a decrease in employment levels among the control group. Results were due, according to the authors, to the different processes of care. Nurses were more concerned with supporting functions and doctors more concerned with biological and technical aspects of care. This is demonstrated by different scoring patterns on a 'critical incident technique scale'. Other studies of patients with chronic conditions tend to support these findings [112,236].

A further outcome, probably also related to the time which nurse practitioners make available to patients, is a reduced rate of misuse of emergency facilities and a reduction in the rate of doctor consultations for 'trivial' reasons [44,210]. The physicians appear to have neatly passed the buck.

A number of studies have reported increases in the proportion of populations seeking care, coming forward for screening, accepting contraceptive advice and participating in health care programmes [43,67,133,179]. Whether this constitutes a major shift in access to care or utilisation of resources is not possible to say as yet. Nurse practitioners form only a small proportion of the total health care manpower but the trend is in the direction postulated by those who supported the introduction of such personnel. The provision of well-patient and routine care has released medical time for more difficult cases though some of the time saved has to be devoted to the supervision of the nurse practitioners. Clinics and medical practices have been able to increase their through-put of patients as a result of the employment of nurse practitioners without any apparent detriment to patients and, possibly, with some gain.

(f) Cost Considerations

There is not a great deal of information available so far on the costs either of training or employing nurse practitioners nor of the cost effectiveness of their employment in terms of medical and patient time saved though studies are currently being undertaken in America and Canada. Some evidence on costs can be gleaned, however, from the literature.

It is widely assumed that the costs of training a nurse practitioner are substantially less than those of training a doctor. Lengths of training courses

vary considerably from two months in-service programmes to two-year masters courses. The initial cost of training for nursing also has to be taken into consideration as a nursing qualification is a pre-requisite for all trainees. McTernan[155] has estimated that it costs $7,000 per year per student to train a physician assistant while it costs from $14,000–$21,000 a year to train a doctor in America. The physician assistant takes about half the time of a doctor to train. Similar considerations apply to the training of nurse practitioners. At one extreme, that of short in-service courses, the costs of converting a nurse into a nurse practitioner are not very great. At the other extreme, that of the masters course, the total cost is considerable and may not be much lower than that of training a doctor. One of the major reasons for advocating the introduction of nurse practitioners is that they would be cheaper to train and cheaper to employ than doctors. Raising the status of training courses as such may wipe out some of the anticipated gain.

Payment of nurse practitioners depends on the type of setting in which they are employed. Where they are employed in hospitals, clinics, nursing homes, out-reach stations and in medical practices the nurses are salaried employees. They get some salary enhancement over the regular nurse but do not necessarily get the financial rewards they regard as commensurate with their increased level of responsibility for direct patient care[144].

The question of how and to what extent doctors are able to re-coup the cost of employing a nurse practitioner in a medical practice is currently receiving considerable attention. Views seem to be divided as to whether the employment of a nurse practitioner increases or decreases the income of a practice. Charney and Kitzman report that after one year the paediatric practitioners were almost generating sufficient income to cover salary and that the income of the practice was increased because the doctor could take on more patients and delegate well child care to the nurse[44]. Bailit[14] states that the employment of nurse practitioners increases the number of services provided and thus the net income for the practice. The recent follow-up study in the McMaster University series[215] suggests that increases in the gross income of practices employing nurse practitioners are minimal. The major problem in the USA is that of reimbursement of practices for services rendered by the nurse practitioner to Medicare patients and patients on social security.

On the evidence available from the various studies (see Tables 1–6) it is doubtful if the employment of nurse practitioners will, in the long run, bring about substantial savings. Consultation time per patient is longer for nurse practitioners than for doctors. Though cost per patient per year may be lower, the fact that the nurse practitioner sees fewer patients than the doctor probably brings the cost per patient consultation up to that for the doctor. Large savings depend on the differential between the salary of the doctor and that of the nurse practitioner. Data from Scherer et al show that over a five year period nurse practitioner salaries have increased considerably beyond the salaries they were paid as ordinary nurses in the practice. Individual doctor remuneration is not given so it is not possible to compare the two rates but there had been an overall decrease of 5% in net practice incomes.

TABLE 1 Time per consultation

	Doctors	Nurse Practitioners
Lewis et al 1969	35 mins	49 mins
Channey et al 1971	13 mins	21 mins
Bystran et al 1974	Ratio 1:3	
Bessman 1974	20 mins	30 mins

TABLE 2 Cost per patient per year

	Doctors	Nurse Practitioners
Lewis et al 1969	$ 127.24	$ 98.51

TABLE 3 Time spent in direct patient contact

	Nurse Practitioners	Other Nurses	Doctors
Silver et al 1971	47%	24%	N/A
Spitzer et al 1973	56%	33%	N/A
Oseasohn 1975	33%	N/A	N/A
Yeomans 1977	68%	41%	N/A

TABLE 4 Rate of broken appointments

	Doctors	Nurse Practitioners
Lewis et al 1969	10.1%	5.4%
Ford 1971	25%–40%	9.0%
Bystran et al 1974	12.3%	5.5%
Oseasohn 1975	N/A	37.0%

TABLE 5 Percentage of allocated patients managed by nurse practitioner without medical help

Silver et al 1971	75%
Spitzer et al 1973	67%
Oseasohn 1975	90%
Levine et al 1976	68%
Scherer et al 1977	70%

TABLE 6 Increase in practice size

Silver et al 1971	14%
Scherer et al 1977	14%

Although nurse practitioners manage over two-thirds of their patients without assistance from the doctor they have to seek his advice for the rest and he may need to spend time 'consulting' with the nurse practitioner or in actually seeing her patient. An element of medical consultation time cost must, therefore, be added to the average nurse consultation cost per patient if a proper comparison is to be made.

While the studies report the proportion of nurse practitioner time spent in **direct** patient contact, unfortunately they do not report what proportion of the doctor's time is spent in direct contact, so that it is not possible to work out exactly what the difference in cost per patient is. Another set of essential data which is not available is the proportion of contact time which is spent in well-patient care versus other types of patient care. Charney and Kitzman state that paediatricians spend 56% of their time in well child

care[44] and that the employment of a nurse practitioner enables this proportion to be reduced. They do not, however, give a figure. The major elements however, to make some crude cost comparison would appear to be:

1 Hours of doctor's time spent in direct consultation
2 Hours of nurse's time spent in direct consultation
3 Consultation time per patient per doctor
4 Consultation time per patient per nurse
5 Additional doctor time spent on nurse's patients
6 Nurse practitioner's salary
7 Doctor's salary/remuneration
8 Ratio of serious to well-patient cases seen
9 Differential consultation times for well-patient and serious cases

Bystran[36] has stated that reduction in consultation time per nurse practitioner would be difficult to achieve and involve expensive additional training. She writes 'there is little to suggest that the nurse as primary caretaker will decrease the cost of providing health care'. If this is so, the justification for the nurse practitioner would seem to depend on the demonstration that their employment frees medical time to take on new patients and/or devote more time to more serious cases and that by so doing the practice is able to provide better care for patients by a more appropriate use of medical and nursing skills.

One important outcome of their employment as nurse practitioners is that the nurses in these roles (Table 3) spend more time in direct patient care/contact than do other nurses in the same or similar settings. This does suggest that nurse time, as well as doctor time, is being more appropriately utilised and that some benefit to patients might accrue. Nurse practitioners do appear to achieve better rates of appointment keeping and follow-up than doctors but this may be largely an experimental effect. Their ability to secure greater compliance from patients through more effective education and support is, however, of major importance though it must be pointed out that a recent study by Sackett et al† throws some doubt on the

† Sackett, D.L. et al, 'Randomised clinical trial of strategies for improving medication compliance in primary hypertension', Lancet, i, 1975, pp. 1205–7.

effectiveness of educating patients and improving follow-up in sustaining compliance.

[illegible]

[illegible]

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IMPLICATIONS FOR THE UNITED KINGDOM

In a fascinating article on the relevance of child care practices in Western European countries to the USA, Miller[166] has pointed to some significant differences in the pattern of provision which can be seen to be related directly to the development of the extended/expanded role of the nurse. All the countries he visited had made the distinction between preventive and therapeutic services and had placed the former in the hands of government at no direct cost to the patient and the latter in the hands of the general practitioner. There seemed 'little confusion in the minds of parents about what is preventive and what is therapeutic (sic)'. To him the most significant aspect of the provision of health care was that each country was 'blanketed' on a geographical basis by contiguous clinic areas and that parents were expected to seek preventive services within their own area. Unlike the USA there were no large areas without access to health care. In Great Britain, he noted, nurses were allowed to see children on their own and a new system of attachment to GPs was being developed. His article is not concerned with the extended/expanded role of the nurse in America but with what he saw as a development being pioneered in Western Europe. 'The more extended (sic) use of nurses in health supervision of well children in Finland and Great Britain is a step towards permitting doctors to expand their supervision over greater numbers of children. The role of the nurse in evaluating the health of children does not make her into a second rate physician, but simply is an extension of one of her traditional roles as a nurse – the identification of abnormal symptoms and signs and the reporting of these to the responsible physician'. The basic problem, as he sees it, is how to organise the efforts of various personnel to prevent the overlapping of activity and conflict of interest and to reach the greatest number of children. I have referred to this paper at length as it suggests that in the health visitor attached to general practices we already have the 'Paediatric Nurse Practitioner' in embryo. Comparison between the work patterns of the Health Visitor and the nurse practitioner would confirm this view. Some information on the former is available in Clark's study [51].

It is a relatively short step from the health care of children to the health

care of children to the health care of other major population groups. The changing demographic structure has meant that in the last twenty years attention has begun to be focussed more on the health care of the elderly though there is still a great deal to be done. Many GPs have set up age-sex registers and have begun the work of screening their elderly patients. The earliest of these to be described is the Rutherglen Experiment[10]. There have been surveys of large geographical areas to assess not only the health care needs of the elderly population but how far these are being met by existing services. Pertinent to the present topic is the extent to which nurses are involved both in the initial assessment of such patients and in their subsequent care. Williamson et al [263] writing in 1964, describe an early study of the unreported needs of the elderly at home. The elderly are one of the major groups where self-reporting tends to be low partly because they do not themselves distinguish between 'ill-health' and 'ageing'. Williamson used health visitors to assess the needs of elderly patients. He writes, 'the health visitor service was started to meet the crises of infant and child morbidity which is now a thing of the past. Instead our society faces an equally serious crisis of ill-health and disability at the other end of life'. Other articles [16,57,96,154,178,261,262] stress the involvement of the health visitor and district nurse in patient assessment and subsequent care. Watts[254] in a study of district nurses in East Birmingham reports on the high proportion (46%) of time which these nurses spend in direct patient care. They are for many patients the effective provider of primary care. Wallace[251] describes the assessment of the elderly in a group practice. Here we have a district nurse, rather than a health visitor, who is organising the assessment and providing the subsequent care. 'The author's experience is that by visiting the elderly in a 'nursing capacity', patients' needs can swiftly be dealt with, avoiding any delay in treatment due to referral'. Hoadley [100] in a study of the elderly on a group practice list is concerned not just with the unmet needs of the patients but with the low level of input from nurses. While 98% of elderly patients had been seen by the GP only 9% and 13% respectively had been seen by the community health nurses and the health visitors. Nearly half of the patients had used hospital facilities in the year preceding the survey. Hoadley describes nursing involvement as 'marginal' and suggests that the lack of nursing care may help to account for the high number using hospital facilities.

The involvement of nurses in screening of both the very young and the

elderly is already well accepted though, in the absence of any major shift away from work with children, the extent of health visitor intervention in the care of the elderly is not very great. Lack of 'statutory' responsibility also means that the elderly are given lower priority than children. It is not yet routine in all practice settings for nurses to be the main contact for elderly patients. Where they do have major responsibility for the elderly the nurses deal with the well-care and maintenance care and take on some of the care of the sick patients referring only a minority back to the GP. This effectively releases GP time for more urgent consultations and ensures regular and continuous assessment of the health status of the patient. As Hoadley has shown, where there has been no special effort to utilise staff effectively to care for elderly patients within a group practice setting, nursing staff are only marginally involved.

Only a slight shift in emphasis is needed to progress from these forms of screening to first contact decisions. In many cases the nurses are effectively making first contact decisions anyway though this may not always be recognised for what it is. Moore et al reported in 1973 on an experiment carried out at the Woodside Health Centre in Glasgow [169]. A nurse went with the GP to 111 new house calls. Each made an independent decision about what to do for the patient. The pattern of decisions did not differ either statistically or clinically. There were nine cases where differences in recommended action might have had serious consequences but it was argued that the proper training of the nurse could overcome this. Marsh [161] in an account of a Teeside group practice describes how nurses have carried out some 1,200 consultations in a year which would otherwise have been undertaken by the doctors. Two of the attached nurses specialised in family planning and well-woman care. The latter involved the use of a vaginal speculum and taking of cervical smears. These were new tasks and would previously have been regarded as 'medical' tasks. We have here the equivalent of the 'geriatric nurse practitioner', the 'family planning nurse practitioner' and the 'family nurse practitioner'.

The Teeside study demonstrates how a team, consisting of doctors, nurses, receptionists, secretaries and attached local authority staff can be organised to give care to patients in such a way that the work-load of the doctors is significantly reduced while contact is maintained with a large

proportion of the patients registered with the practice. Marsh and McNay argued, in earlier papers on the same practice†, that the work-load could be so reduced by delegation to nursing staff that more patients could be taken on per practice and the number of GPs required might, therefore, 'not be as high as is currently being suggested'. The data presented in these papers can be manipulated to show that the actual cost of employing nurses to carry out the number of consultations which they managed was two-thirds more expensive than the employment of an additional doctor would have been. Like their American counterparts, the nurses carried out fewer consultations than did the doctors. So, although they were cheaper individually than doctors, the cost of seeing the same number of patients as would have been seen by a doctor was higher. It may be that the nurses are less efficient at managing consultations and take longer to do the same thing as the doctor. In which case it would be difficult to justify their employment. They may, however, be doing things which intrinsically take longer and things which the doctor would not do. Part of the explanation for the lower rate of consultation per nurse is that patients do not yet readily seek the nurse rather than the doctor and the doctor does not always delegate all that he could. Marsh and McNay maintain that they have been able to delegate a considerable proportion of their work without any apparent reduction in the quality of clinical care, though, as they point out, 'as yet no acceptable and defined standards of quality of clinical care in general practice have been worked out'. The authors argue that doctors could delegate even more work if the public were more educated to the fact that nurses and other workers were available for consultation. Both public and primary care team members need educating into the changes that are taking place. They comment further on the duplication of effort in the ante-natal field and suggest that after initial assessment by the doctor much of the month-to-month care could be left in the hands of the midwife with the doctor available if problems arise.

The whole question of the quality of ante-natal care and post-natal care given in this country has been covered by the Court Committee and by the

† Marsh, G.N. and McNay, R.A., 'Team Work Load in an English General Practice I and II', **British Medical Journal**, 23 Feb. 1974, pp.315–321

evidence given to the Royal Commission on the NHS by Wynn and Wynn†. Freeman[77] has stated that 'total care for expectant and newly confined mothers is confusing and divided, community care fails 'to compensate women for the trauma of increasingly technical and depersonalised, though safe, childbirth in hospital'. He maintains that the system frustrates efforts by new mothers to breast feed, that few GPs take on complete post-natal care and that the switch from midwife care to health visitor care breaks continuity. The whole process leaves many patients with unfulfilled needs. He argues for the creation of a new type of nurse, the 'maternity nurse practitioner', to give continuing care before, during and after childbirth. He has identified an important gap in primary care and practices need, like the Teeside group, to organise staff to close this gap. In some areas, such as Shropshire for example, midwives are still centrally controlled, as are district nurses, rather than being deployed by the GP. With the almost complete changeover from home to hospital confinements the role of the domiciliary midwife has been eroded, yet it is not difficult to see that there are major deficiencies in locally based services which need to be made good if we are not to fall further behind in the quality of care given to mothers and children. While it would not be necessary to create yet another category of nurse Freeman has identified an important role which could be undertaken by existing staff.

Another gap in the primary care services is for patients presenting with social and psychological problems. In the Teeside practice the second most common diagnostic category was psychiatric illness. This finding would be common in many practices. Yet, as Byrne and Long have shown in a major study of GP/patient verbal interaction*, much psychiatric information is ignored by doctors. Psychiatric nurses have already established a place for themselves in the community, perhaps they should also be included as therapists in the primary health care team.

While we may not be short of GPs in this country we do face many of the same problems which generated the development of the nurse practitioner

† Wynn, M. and Wynn A., **The Prevention of Pre-Term Birth**, 1977.

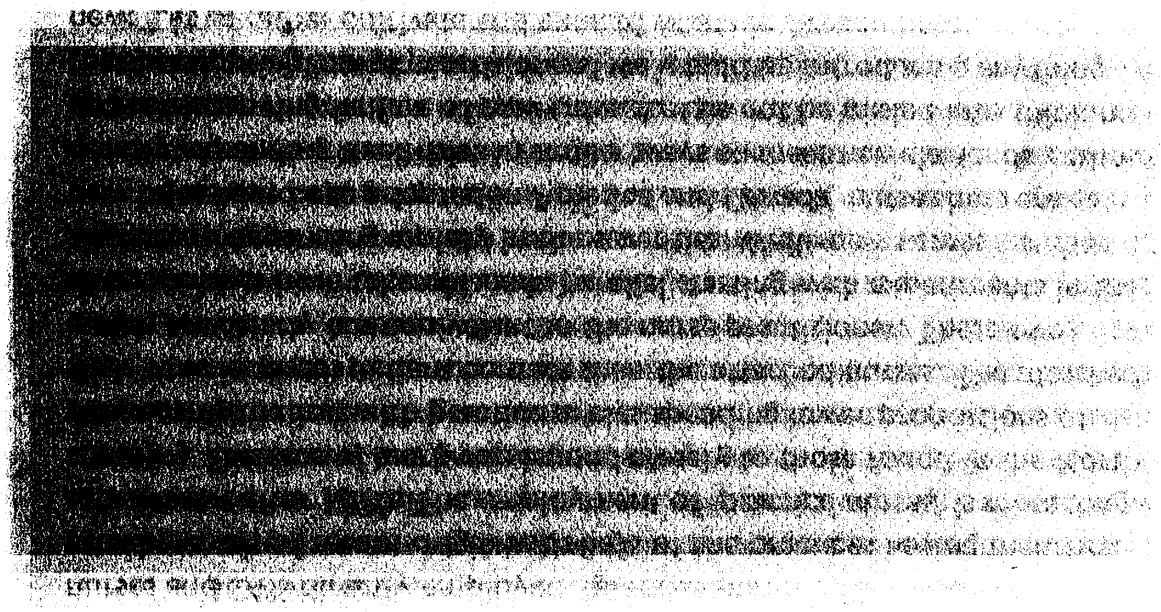
* Byrne, P.S. and Long, B.E.L., **Doctors Talking to Patients**, HMSO, 1976.

role in North America. There are problems of access in rural areas and lower rates of registration among ethnic minority groups in inner city areas. Employment of newly qualifying nurses in both general and psychiatric hospitals is currently a problem. Lack of patient contact, which accompanies career advancement in hospitals, is also a problem we share. Lack of support for preventive programmes is another area of common ground. Patient compliance is as acute a problem here as anywhere and doctor/patient communication, which is closely bound up with compliance, has come in for criticism from several quarters. GPs are noted for their tendency to relate to patients as 'diagnostic labels' rather than as people who have brought their problems, in all their complexity, to the doctor[21]. McGuire and Rutter[21], studying the interviewing and assessment behaviours of doctors, conclude that 'doctors ought to be trained to adopt a more holistic interviewing approach and to educate their patients to realise that they were genuinely concerned with practical, social and psychological problems as well as physical illness'. Most nurses would subscribe to this ideal for themselves and claim to have been trained to get just such a message across to their patients. Ley[21], in discussing the problem of communication between doctor and patient, identifies the two related issues of patient satisfaction with communication and patient compliance. Not only do doctors give patients information in indigestable ways but they also maintain a level of social distance between themselves and the patient which puts the patient at a disadvantage. Ley argues that the 'reduction of patients' diffidence would go a long way to solving the communication problem'. Byrne and Long (op cit) have demonstrated how GPs systematically cut off communications from patients if these occur outside the framework of the GPs' expectations. Physically orientated GPs reject patient information about social problems. They reject psychiatric information and reject patient demands for an affective response. Psychiatrically orientated GPs reject physical information in their search for underlying problems. Unless the patient tailors his 'presentation of self' to the particular GP the consultation is likely to be a failure.

Nurse/patient consultations have not, to my knowledge, been subjected to similar scrutiny. However, status differences between nurses and patients are less than between patients and doctors and there is evidence to suggest that patients feel freer to raise problems with lower status personnel. There

is less need to present with a defined medical condition. It is at least possible that more of the problems which patients have will be raised with the practice if they have access to nursing care as well as to medical care. It is also possible that the nurse may be more successful in giving psycho social support to the patient and in securing patient compliance.

Reedy et al [201] have documented how extensive the employment of nurses is in medical practices. Over two-thirds of practices in 1974 had attached nurses and 24% directly employed 'practice nurses'. The expansion of attachment is of recent origin with 64% of the practices having their first attachment after 1970. The employment of 'practice nurses' is more long-standing. Patterns of work correspond closely to those found in the North American situation with practice nurses spending lower proportions of their time in direct patient contact than the attached nurses. The attached nurses are clearly our equivalent to the nurse practitioner. These two developments have taken place in parallel starting with experiments in the sixties and expanding rapidly in the seventies. While new names for the new roles have been adopted in America and Canada, nurses here are quietly expanding their roles in similar ways to meet new demands without an accompanying fanfare of new titles. Let us not be misled into thinking that in adopting 'nurse practitioners' we would be introducing anything new. Let us rather cultivate and expand what we already have.



NOTE ON SOURCES

The RCN Library supplied a list of selected references on the nurse practitioner (60 items) and one on the psychiatric nurse as therapist (99 items). The DHSS Library carried out a MEDLINE enquiry on nurse practitioners (49 items) supplemented by an additional list of ten references. The most recent issues of nursing journals were consulted and relevant references tracked back. Nursing Research carried a series of bibliographic review papers which proved to be a useful source. In total, excluding the nurse-therapist references, a bibliography of 273 items, mainly in journals, was assembled. The Canadian Nurses Association kindly sent two bibliographies on the expanded role of the nurse (441 items) and on the physician's assistant (145 items). In the time available it has not been possible to consult the latter. Of the 273 items assembled I have read just under two-thirds. I have tried to concentrate on accounts of research but, inevitably, have read many discussion articles which bring together views and opinions and make reference to research findings. Where I have not been able to go back to original sources I have had to accept the 'findings' as stated at second hand. Where I have done this I have given the original reference. Where I have been able to read papers I have distinguished between research accounts, accounts of one setting, one nurse or one programme (which I have called task accounts), discussion papers, which are based on extensive reference to research accounts, and opinion papers. The small letters in the left-hand margin of the bibliography are keys to this classification. Distinctions are not always clear cut and some papers belong to more than one category. It is, however, possible to pick out at a glance those papers which report research findings. I have not looked in any detail at the literature on the physician's assistant as this is not an expansion of the nurse's role. I have made some reference to this development and to the distinction drawn between the physician assistant role and that of the nurse practitioner.

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KEY

r — research paper presenting authors' findings

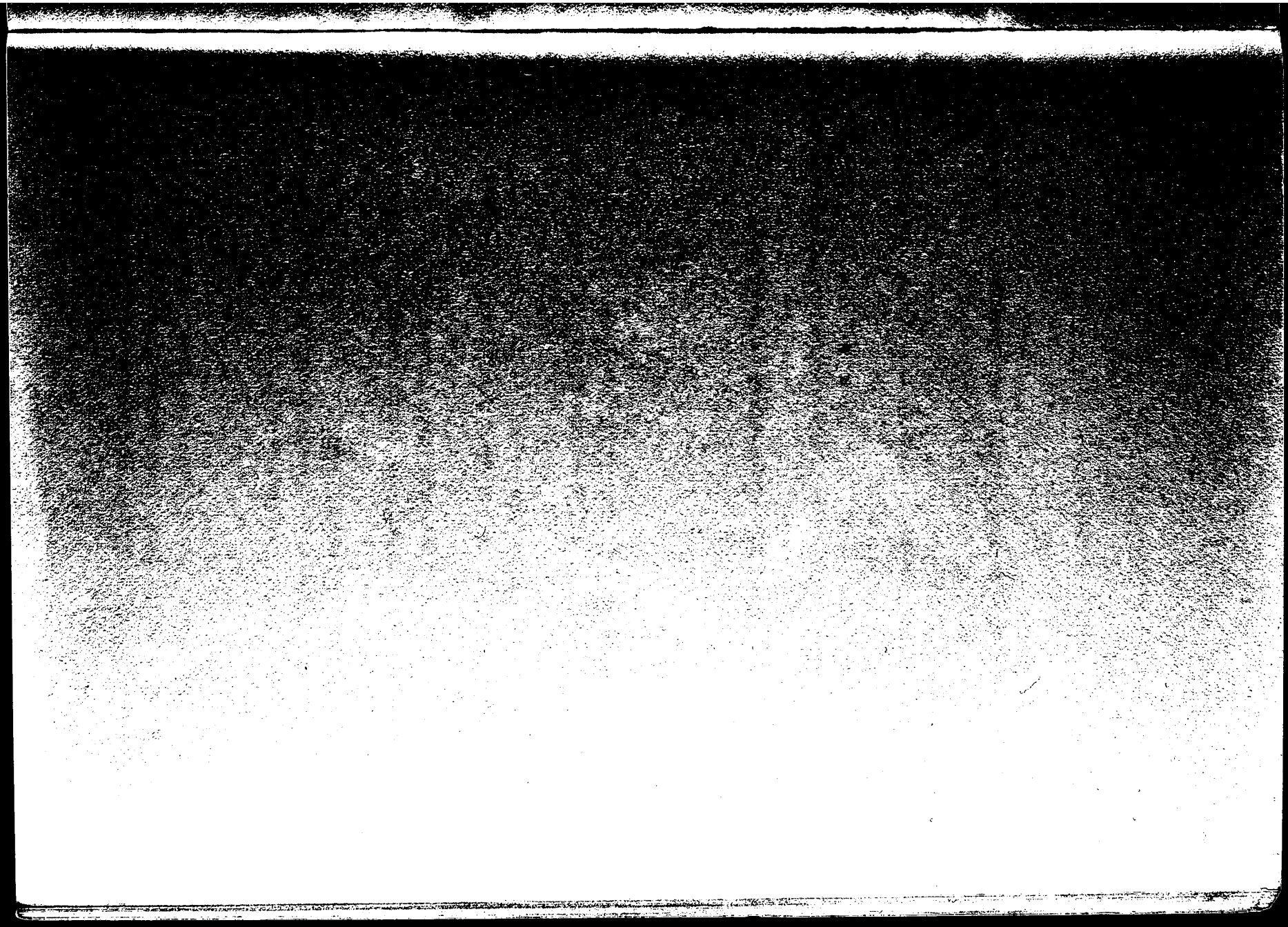
d — discussion paper usually making reference to research material

t — task description either of work setting or educational programme

o — opinion paper usually no reference to research sources

s — official statement

Jillian M MacGuire
September 1977



JILLIAN MacGUIRE worked as a Research Officer at the General Nursing Council from 1968 to 1972. She was a Research Adviser to the Briggs Committee on Nursing. She is currently involved in the manpower planning of the proposed District General Hospital at Telford on secondment from the Telford Development Corporation.