

The emergency nurse practitioner role in major accident and emergency departments: professional issues and the research agenda

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The emergency nurse practitioner (ENP) is a rapidly developing role within emergency health care provision in the United Kingdom (UK). This paper explores some of the available literature concerning the development of the role in the context of major accident and emergency departments. The professional and legal implications of this shift in role boundaries are discussed. The current inconsistencies in educational provision and the potential consequences for practice in this area, are highlighted. The relative plethora of rigorous evaluation studies of ENP role effectiveness in North America, is contrasted with the current paucity of empirical data available in the UK. A number of methodological issues concerning the evaluation of ENP services are identified. The need for research in this area, alongside a programme of continuing local audit to guide and inform evidence-based practice, is emphasized.

Keywords: emergency nurse practitioner, accident and emergency, professional issues, research

INTRODUCTION

In the United Kingdom, the expanded role of the emergency nurse practitioner (ENP) in the accident and emergency department setting has recently been the subject of increasing attention. Steadily rising attendance figures, against a backdrop of medical staffing shortfalls, have brought the on-going debate concerning skillmix patterns and professional role boundaries sharply into focus. This paper aims to highlight some of the key issues identified in the literature, providing initially, a brief historical perspective, followed by the wider professional and legal implications involved.

The scope of ENP role activity and the relevant educational aspects will also be addressed. A number of evaluation studies concerning role effectiveness will be

discussed, alongside a consideration of some of the methodological issues involved which, it is hoped, will inform future research activity in this area.

DEVELOPMENT OF THE EMERGENCY NURSE PRACTITIONER

The general concept of the nurse practitioner role appears to have first developed in North America, with the work of Silver and Ford in 1965, which was aimed at providing more widely available healthcare for children (Winson & Fox 1995). Since that time the role has expanded greatly to encompass a variety of client groups and healthcare settings, including the emergency department. In the United Kingdom (UK), development has been slower, building on the pioneering work of Stilwell in the primary care setting (Stilwell *et al.* 1987). In the accident and emergency (A&E) context, Oldchurch Hospital in Romford, England, established the first formal ENP service in the

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mid-1980s (Head 1988). This example was followed by further sporadic, *ad hoc* developments, such as those reported at Lincoln (Howie 1992), Derby (Potter 1990) and Southend (Burgess 1992). In recent years the pace of development has markedly increased (Crinson 1995).

Definition of role

One definition of the emergency nurse practitioner role developed in the UK, is that provided by the Royal College of Nursing Accident and Emergency Nurses Association (RCN 1992):

An ENP is an Accident and Emergency nurse who has a sound nursing practice base in all aspects of Accident and Emergency nursing, with formal post-basic education in holistic assessment, physical diagnosis, in prescription of treatment and in the promotion of health.

An alternative definition is offered by Read *et al.* (1992), who describe an ENP as:

A nurse who is authorised to assess and treat patients attending an accident and emergency department, either as an alternative to the patient being seen by a doctor, or in the absence of a doctor in a department where a continuous medical presence is not maintained. Some nurses function as nurse practitioners without actually holding the title.

This definition raises the notion of an 'informal' system of care, which the authors suggest has been associated with smaller nurse-led community hospitals and specialist units. It should be noted, however, that whilst the above definitions appear regularly in the literature, the UKCC have expressed strong reservations about the use of the term nurse practitioner, believing it to be misleading, ambiguous and potentially divisive (Castledine 1993).

Despite these objections, the title ENP has become relatively well established in the traditional accident and emergency department setting, as well as in the rapidly expanding environment of nurse-led minor injuries units (Cable 1995). The number of departments in England and Wales providing an ENP service in 1991 was reported as 6% (Read *et al.* 1992). By 1994 this figure had sharply increased to 33% in England (Crinson 1995), with recent estimates claiming a further rise to 63% in England and Wales at the end of 1995 (Meek *et al.* 1995). Whilst there is little published empirical evidence to explain this upward trend, it appears to be the result of a number of different factors converging in the 1990s to create a professional and economic climate conducive to this type of role development.

First, the number of patients attending accident and emergency departments in the UK has risen inexorably by an average of 2% each year over the last 15 years (Audit Commission 1996). Whilst the 'appropriateness' or otherwise of many of these visits has been the subject of much

professional debate (Liggins 1993), the effect of this rise on a diminishing number of departments has been significant. This increased throughput, coupled with emergency bed admission problems often attracting high profile media coverage, has necessitated a wide ranging national review of emergency care provision. At the same time, the effect of government policy to reduce junior doctors' hours (NHS Management Executive 1991) has created a medical staffing shortfall across the NHS as a whole (Fish 1995). This problem has been further compounded in A&E, where alterations to traditional surgical training pathways have created national recruitment difficulties.

Second, a number of influential reports (e.g. National Audit Office 1992, Clinical Standards Advisory Group 1995, Audit Commission 1996) have given positive encouragement to further development of the ENP role as one method of improving the quality of care and, in particular, reducing waiting times. These documents have, in effect, given legitimacy to existing ENP schemes and provided an impetus for others to follow.

Third, and crucially, major shifts in professional attitudes towards role expansion have taken place within nursing, which have removed some of the barriers left over from the 1970s. In particular, the Scope of Professional Practice (UKCC 1992), which attempted to move away from the restrictions of medically delegated extended role activities, has provided the potential to revolutionize nursing work (Sbaih 1994). However, Castledine (1995) claims that the original principles of the document which were intended to enable nurses and midwives to develop their practice in the interests of patients, have been largely ignored by many employers. Despite these reservations, it is apparent that the document has succeeded in accelerating the pace of role development by formally acknowledging the changing boundaries of clinical practice in A&E and elsewhere.

PROFESSIONAL AND LEGAL IMPLICATIONS

The challenge to traditional role demarcation represented by the development of ENP services, has inevitably raised a number of wider professional issues. Whilst many authors claim a variety of benefits associated with the role (McKenna *et al.* 1994, Dillner 1995, Beales & Baker 1995), others highlight a number of concerns. Robinson (1993) describes the potential dangers of a medical substitute role, arguing that nursing should not be striving towards the goal of carrying out medically delegated technical tasks.

This view is supported by MacAlister and Chiam (1995) who fear a loss of nursing focus and the danger of reinforcing professional subservience. It is argued that if nursing adopts a biomedical approach, the unique nature of nursing will be lost, subsumed by the desire to cure rather than care. It is perhaps as a defence against such claims, that a

number of authors stress the holistic nature of ENP assessment (Woolwich 1992, Pickersgill 1995, Gee 1995), given that holism is frequently regarded as a fundamental value underpinning nursing practice (Wilson-Barnett 1988).

The ability to function autonomously is another recurrent professional theme. A qualitative study by Hughes (1988) demonstrated that experienced A&E nurses were frequently advising junior doctors regarding the pivotal areas of diagnosis and treatment, without formal recognition. Allowing ENPs to independently manage a clinical caseload, therefore confers a degree of professional respectability often lacking historically.

However, this shift in professional relationships has inevitably met with some opposition from those with a potential vested interest in the *status quo*. This not only applies to medicine, but also to other disciplines such as radiography (Meek *et al.* 1995). Opposition has also arisen from anxieties about deskilling junior medical staff in particular aspects of clinical care, such as minor trauma management. McKenna *et al.* (1994) indicate that this argument can also be applied to ENPs, who could potentially lose competence in such areas as advanced trauma life support and cardiopulmonary resuscitation.

In addition to these professional issues, there are a number of legal implications identified in the literature. Whilst autonomy and clinical independence are recognized characteristics of ENP practice, the parameters of that practice are inevitably influenced by risk management considerations. The common law principle of vicarious liability on the part of the employer, can result in relatively 'conservative' protocols being applied to ENP practice.

In the absence of any national guidelines in the UK, there appears to be considerable local variation in these protocols, dependant on the level of experience of the ENP and the views of the key stakeholders involved. Fear of litigation is arguably even more apparent in the USA, with a study by Hayden *et al.* (1982) identifying medico-legal concerns as one of the major inhibitors of ENP practice.

ENP ROLE PARAMETERS

Whilst clinical protocols are, perhaps, an inevitable consequence of an increasingly litigation-conscious society, there is a danger that rigid, over-prescriptive policies may restrict professional judgement. Importantly, they may also have a detrimental impact on the cost-effectiveness of an ENP service.

A study by Read *et al.* (1992) estimated that only approximately 3% of the total number of patients attending A&E departments in England and Wales in 1991, were clinically managed by ENPs. The authors suggested that one explanation for this low figure was the restrictive nature of many of the protocols in use, particularly in major departments with a continuous medical presence.

Whilst this 3% estimate has been challenged (Dudley *et al.* 1993), the study does raise a number of important issues regarding utilization, which appear central to the debate about role development. For example, the diversion of designated ENPs to other activities in the department due to staff shortages or increased workload, is highlighted as having an impact on the number of patients treated. This problem is also identified in a more recent national survey carried out by Crinson (1995).

On a more positive note, Brebner *et al.* (1996) describe a system developed at Aberdeen Royal Infirmary to devise protocols from a clinical database of patient requirements, which they claim could enable ENPs to manage up to 30% of their patient workload.

The concept that the ENP role can be combined with other A&E nursing roles, such as triage (Burgess 1992), adds a further dimension which, it is claimed, may offer increased flexibility, although it seems clear that the two roles differ significantly. A study by Meek *et al.* (1995) identified that only nine out of a total of 202 major A&E departments surveyed in England and Wales, considered their ENPs to be 'dedicated', i.e. working solely in that role with no other clinical commitments. This situation is in marked contrast to the fast developing nurse-led minor injury units (Beales & Baker 1995), where ENPs are employed to deliver a clearly defined service without the many potential clinical distractions associated with the orthodox A&E environment.

Although it is apparent that there is considerable local variation concerning the scope of ENP practice, the majority of their work is often concerned with the management of minor trauma. However, as clinical competence and confidence grows, and the service becomes more established, the boundaries of practice can often develop further. This sort of expansion is clearly more likely in those departments where there is a commitment from all the key stakeholders involved and on-going evaluation of the service provided. Whilst many ENP protocols exclude the clinical management of children, particularly the younger age groups, Jones (1996a) supports the development of children's ENPs in paediatric A&E departments. Using an action research approach, the author claims that introduction of such a service would have a beneficial effect on waiting times and improve the quality of care.

Ordering X-rays and prescribing medications

A major focus in the literature on ENP role activity concerns two pivotal clinical functions, which have been viewed historically as coming exclusively within the boundaries of the medical profession — ordering radiographic examinations (X-rays) and prescribing certain types of medications. Given that much of the clinical caseload of ENPs is concerned with minor trauma

management, it is perhaps inevitable that these two areas have attracted much professional attention. Enabling A&E nurses to order X-rays directly from triage before being seen by a doctor, has been increasingly seen as one method of dealing with unacceptably long waiting times (Jones 1996b). Professional resistance to such changes, particularly from radiographers and radiologists, has been reported as a significant obstacle in some areas (Meek *et al.* 1995), although Davies (1994) describes a positive collaboration when establishing a nurse requested X-ray service in Norwich.

A large multi-centre evaluation study carried out by Thurston and Field (1996) identified only a small saving in waiting time when nurses were allowed to request X-rays, although it was emphasized that adequate training was mandatory before introduction. However, other studies which have specifically investigated ENP ordering of X-rays, report no significant differences in the ability to request appropriately compared to casualty officers (MacLeod & Freeland 1992, Freij *et al.* 1996). In view of this, it is perhaps surprising that Meek *et al.*'s (1995) survey reported only 59% of ENPs working in major A&E departments were allowed to order X-rays.

In addition to initiating radiographic examinations, some ENPs are also permitted to interpret certain films independently within the limits of local protocols, although there are currently no reliable data on the prevalence of this practice in the United Kingdom. Whilst the expertise required to competently interpret X-rays is considerable, allowing sufficiently trained and experienced ENPs to carry out this role function supports the concept of autonomous practice and enhances the continuity of care. A study by Freij *et al.* (1996) in a minor injuries unit concluded that ENPs were as competent at interpreting X-rays as casualty officers working in a nearby A&E, although the sample size was relatively small.

Giving ENPs limited prescribing powers is a similarly important area, if professional emancipation is to be achieved. The historical monopoly of doctors in this field has to some extent been loosened in recent years, as the issue of nurse prescribing has become the subject of professional scrutiny (RCN 1993). However, the potential hazards of independent prescribing powers, particularly with unscreened patients in a busy A&E environment, have necessitated caution. Of the 49 major A&E departments with ENPs in Meek *et al.*'s (1995) study, 40 allowed a range of prescribing/dispensing to be carried out by the nurse practitioners. Thirty of these were allowed to prescribe items from the 'pharmacy only and general sales list' and nine were permitted to prescribe 'prescription only' medications, such as oral antibiotics. Although not stated in the study, it seems probable that these prescribing/dispensing activities were authorized within the context of clinical protocols, as described by Beales and Baker (1995).

EDUCATION AND TRAINING ISSUES

Given the degree of autonomy and considerable range of clinical responsibility inherent in the ENP role, it is perhaps not surprising that educational requirements form a major part of the current debate. In the United States, where the nurse practitioner movement has a longer history and a more established place in mainstream healthcare, it is widely recognized that educational preparation to an advanced level is an essential prerequisite (Price *et al.* 1992). However, as Curry (1994) points out, whilst the vast majority of educational courses are offered at master's degree level, there has been a move away from courses aimed specifically at ENPs. This shift towards a more broad based nurse practitioner curriculum has, in part, been the result of market forces, which have resulted in only a limited number of ENP practice settings being available for graduates of the programme.

An interesting parallel development in North America has been the physician's assistant role. In 1993, it was estimated that there were 27 000 physician's assistants, educated generally to bachelor's degree level, providing a limited medical support service in a variety of settings, including the emergency department (Curry 1994). Whilst there is no comparable role at present in the UK, the potential for such a development may exist in the future.

The much shorter history of the ENP role in the UK, as well as variations in the academic level of pre- and post-registration education, have created a different situation in this country. Whilst there appears to be widespread recognition that education and training are fundamental to safe and competent ENP practice, the precise form, content and level of such provision is less clear. One of the difficulties, perhaps arises from the UKCC's Standards for Education and Practice document (UKCC 1994), which introduced the concept of specialist and advanced nursing practice. Whilst the UKCC envisages advanced nursing practitioners as being educated to master's degree level, it is not clear what precisely constitutes advanced nursing practice and, indeed, how this relates to such a role as the ENP. The key criteria of advanced nursing practice offered by Castledine (1996) go some way towards clarifying the issue, but there remains a lack of national consensus.

The Royal College of Nursing definition of an ENP (RCN 1992) includes the requirement for 'formal post-basic education', without stipulating what the nature of that education should be. Even though there is an English National Board nurse practitioner course (ENB A33) available, and an expanding number of other degree level modules and courses, the available evidence suggests that some ENPs are practising without such qualifications. Meek *et al.*'s (1995) survey of major A&E departments in England and Wales, revealed that 12% had received no formal training at all and 63% had attended 'in-house' programmes run by a combination of doctors and nurses. Both the rapid

pace of ENP development and a lack of national consensus, appear to have contributed to the current diversity of educational standards, which may have worrying implications for practice in this area.

The question of standards also arises in a medico-legal context. The increased responsibility of the ENP role carries with it a higher legal standard of care than that expected of the more traditional nursing role (Tingle 1996). In the absence of appropriate educational preparation, including some recognized form of assessment of competence, both the employer and ENP may find themselves in a vulnerable position.

EVALUATION OF ENP ROLE EFFECTIVENESS

A key feature of any rapidly expanding role innovation should, of necessity, be on-going evaluation of both process and outcome elements. The well-established nursing research culture and the long history of the nurse practitioner role in the USA, have resulted in a significant body of expert knowledge in this area (Feldman *et al.* 1987).

Numerous studies have evaluated the work of nurse practitioners in a variety of healthcare settings. A classic study by Spitzer *et al.* (1974) and a meta-analysis by Sox (1979) of 21 other studies, demonstrated that nurse practitioners provided care of a similar standard to physicians, using a variety of measures. Other smaller scale studies have focused on the role of ENPs (e.g. Powers *et al.* 1984, Rhee & Dermeyer 1995) and drawn favourable conclusions about the quality of ENP services, particularly regarding communication aspects and patient satisfaction levels.

In the United Kingdom, despite the relentless pace of ENP role development, there is a paucity of rigorous empirical data available. James and Pyrgos (1989) compared the 'theoretical' management of 332 walking wounded patients by experienced A&E nurses (not ENPs as such), with that of middle grade doctors. Twelve of the patients were mismanaged according to local practice, and there was a small estimated saving in waiting time. A study looking at a variety of nurse practitioner roles, including ENPs, carried out by Touche Ross (1994), reported positive results in the areas of patient satisfaction, safety and clinical effectiveness. However, the authors expressed some concern over the unexpectedly low numbers of patients managed, which was partly attributable to the ENPs having to revert to their traditional nursing role during the study.

There have also been some more recent studies comparing specific role activities, such as X-ray requesting and interpretation (Freij *et al.* 1996). One possible explanation for the lack of robust studies in the area, may be the considerable methodological challenges involved. These were acknowledged by Read and George (1994), who described the difficulties encountered in an attempt to carry out a randomized controlled trial comparing the management of

patients with minor injuries by ENPs and casualty officers. The study highlighted particular concerns about the validity of the relationship between process and outcomes in a research design hampered by relatively small numbers of patients managed by ENPs. Despite these difficulties resulting in the abandonment of the trial, the authors emphasized the need to pursue further evaluation studies in this area.

However, future studies require careful design in order to generate useful data. For example, the use of patient satisfaction as an outcome measure is a regular feature of the literature on role effectiveness, perhaps reflecting the growing emphasis on consumerism in healthcare. However, Avis and Bond (1995) raise a number of unresolved issues around the validity of the concept, which lead them to caution against over-reliance on a potentially superficial indicator of quality. The effect of ENP services on waiting times is another commonly cited outcome measure which requires careful operationalization. A single measure of waiting time from entry to the department to being seen by an ENP, is clearly only a limited reflection of the effectiveness of the role. A wide range of evaluative measures, using a variety of rigorously applied research approaches, appears most likely to provide the data required. As well as exploring relevant clinical outcomes, key characteristics that are frequently claimed to differentiate ENP practice from that of doctors, such as holistic assessment, health education and communication skills need to be observed and tested.

Perhaps inevitably in the prevailing market philosophy of modern healthcare in the UK, the cost-effectiveness of the ENP role also needs consideration. Again, this element demands a rigorous approach if over-simplification is to be avoided. Whilst it is clear that the direct salary costs of a G grade ENP are higher than those of a senior house officer (Audit Commission 1996), a much wider range of other indirect costs is needed if the true economic consequences are to be calculated. For example, it is often the case that ENPs carry out treatments on patients following diagnosis, thus ensuring continuity of care, whereas casualty officers may choose to delegate treatment to the A&E nursing staff, particularly when the department is busy. Also, the precise timing of any studies should take into account the effects of the twice yearly change in junior medical staff in UK hospitals, who frequently lack experience and confidence in the speciality compared with the more permanent ENP.

Measuring the cost-benefits of any health promotion activity is another dimension to be considered, if evaluation studies are to reflect nursing as well as medical values. The current interest in the whole spectrum of emergency care provision necessitates further comparative studies of ENP role effectiveness in a variety of different settings, including nurse-led minor injury units and GP polyclinics.

CONCLUSION

The emerging role of the ENP in major A&E departments is an increasingly prominent feature of modern emergency care provision. The development of the role raises a number of fundamental professional and legal issues concerning the nature of medical and nursing work. The potential benefits of an autonomous role that recognizes and values nursing expertise as well as medical knowledge, are starkly contrasted with the risks of professional subservience implicit in medical substitution. However, the pace of development has highlighted the need for a coherent educational strategy that provides ENPs with the appropriate advanced level of knowledge and clinical expertise needed to carry out a wide range of clinical responsibilities.

Finally, the increasing focus on evidence-based practice underlines the need for rigorous, multiple method evaluation studies of ENP role effectiveness. The data from such work, along with a programme of on-going audit at local level, should then form the basis of future professional development in this important area.

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