



**WHY DO PATIENTS SEEK UNPLANNED FOLLOW UP AFTER TREATMENT IN THE  
EMERGENCY DEPARTMENT?**

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**ABSTRACT**

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**Aims:** This study explored why patients seek unplanned follow up after treatment in an emergency department, if participants could identify the healthcare professional they were treated by, and whether the patient's perception of, and confidence in, the healthcare professional had an impact on their subsequent decision to seek follow up.

**Methods:** A mixed method pragmatic approach was used in order to quantify and explore the aims of the study. Participants were followed up two weeks later by telephone and finally invited to take part in a focus group to explore their experience and perceptions of their visit to the emergency department.

**Results:** 18% of patients sought unplanned follow up in the 2 weeks following their initial visit, with no statistically significant difference between healthcare professional groups. 19% of patients incorrectly identified the healthcare professional treating them, with evidence of a gender bias.

**Discussion:** The qualitative elements of the study explored the quantitative results. Participants were more likely to believe the healthcare professional was a doctor if they were male and had effective communication skills. A number of practical issues were identified in reducing unplanned follow up rates. The most common were issuing fitness to work certificates, explaining the trajectory of an illness or injury and addressing specific pain management issues. A change in policy would be required for non –medical health care professionals to be able to issue fitness to work certificates but in this study it was found to be the single most effective strategy to reduce reconsultation rates.

**Conclusion:** Patients seek unplanned follow up for a variety of reasons. This study shows that non-medical HCPs do not have a higher planned or unplanned follow-up rate, and they may have some advantages over junior medical staff in terms of effective consultation skills, high patient satisfaction and reduced reconsultation rates.

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## Definitions and Abbreviations

A&E	Accident and Emergency
ANP	Advanced Nurse Practitioner, generally accepted to be a nurse practitioner who has developed a broader scope of practice
CCGs	Clinical commissioning groups, commission services in the NHS.
ENP	Emergency nurse practitioner: a nurse working over and above their normal scope of practice.
ENT	Ear, nose and throat.
ESP	Extended scope physiotherapist: a physiotherapist working over and above their normal scope of practice
ED	Emergency Department.
FB removal	Foreign body removal
Middle grade	Doctor equivalent to a registrar or staff grade, more experienced than a SHO
Minors	Minor end of ED, where patients who are usually mobile and not seriously ill are seen and treated in the ED.
MIU	Minor injury unit.
NHS	National Health Service.
PGDs	Patient group directions, legislation which allows the administration of medicines by healthcare professionals who are not independent or supplementary prescribers.
RTA/RTC	Road traffic accident/road traffic collision
SHO	Senior House Officer, junior doctor.
SPSS	Statistical package for social sciences or Statistical Product and Service Solutions
Triage	The initial emergency department assessment by a nurse to prioritise the care of patients.

## **1. Introduction to the Research**

The aim of this research is to explore why patients seek unplanned follow up after treatment in an emergency department. The delivery of care in emergency and urgent care settings has changed immeasurably in the last two decades, in response to the constantly increasing demand for a service which operates twenty-four hours a day, seven days a week, three hundred and sixty five days a year. New ways of working and meeting the variety of challenges that the relatively newly acknowledged specialty of emergency medicine has to flexibly respond to, are a key characteristic, and so it is unsurprising that the specialty has been one of the first to embrace, acknowledge and embed new roles within the accepted model of the care delivered to patients.

My interest in this area lies primarily in my professional background and experience as a nurse working in emergency care for the past 24 years. The enthusiasm I developed for the growth of alternative interdisciplinary approaches to delivering services in emergency care stemmed from the frequently shared experiences of emergency care nurses in the early 1990s. It was common for patients to wait many hours to be seen and treated in Emergency Departments (EDs) by junior doctors who were offered no formal clinical leadership, as the ED consultant role was just emerging. It was not unusual for an ED to be managed and led by an orthopaedic consultant. As with others I shared the frustration and expectation that there must be a more effective and safer way of managing the flow of patients to the ED than was in existence. Emergency Nurse Practitioners (ENPs) in emergency care are now an accepted and vital component of the workforce. My current role involves providing clinical leadership to a team of ENPs who deliver a 24 hour service in the EDs of the Bristol Royal Infirmary and the Bristol Royal Hospital for Children. I also contribute to designing and delivering educational programmes for ENPs at the University of the West of England.

This thesis builds upon a programme of work in the Bristol Academic Department of Emergency Care focussed on the evaluation of new roles in emergency care. Previous work in this area (McClellan et al 2013) showed that while non-medical professionals such as ENPs and extended scope physiotherapists (ESPs) had equivalent clinical outcomes when compared to medical staff treating and discharging patients from the ED, the economic analysis in the study suggested that role substitution could prove more expensive because of indirect costs to the patient and society. One concerning finding was that patients treated in the study by ENPs were more likely to visit their general practitioner following treatment in the ED when compared with patients treated by doctors or ESPs; additionally the number of patients referred for an orthopaedic follow up review was found to be higher in the ENP group when compared with ESPs or doctors. The authors suggested that while ENPS may be seen as an acceptable alternative to providing care to patients presenting with minor injuries there may be a growing but as yet unidentified issue with the confidence of patients in

the healthcare professional who treats them. This could be responsible for the higher follow up rates for patients seen by ENPs, and I therefore set out to investigate this.

## **1.1 1.1 Background and Policy Context**

The National Health Service (NHS), with a workforce of more than 1.7 million people, is the largest employer in the United Kingdom (UK) and is one of the largest employers in the world. The NHS currently provides free at the point of care emergency care for the UK population of 63.2 million people. In order to put this into context the whole NHS provides healthcare contacts to over one million people every 36 hours (The Kings Fund 2011a). With a budget of approximately 100 billion pounds a year and the requirement to find the equivalent of 20 billion pounds productivity improvement saving by 2015 due to the current world recession (The Kings Fund 2011b) the NHS is going through extraordinary change. In April 2013, the established structure of the NHS was changed significantly with the abolition of strategic health authorities (SHAs) and primary care trusts (PCTs), and the devolution of budgetary responsibility to clinical commissioning groups (CCGs) and general practitioners (GPs).

The last decade has brought significant changes in the delivery of emergency care in England. Since 2004 all NHS EDs have had to meet the previous government's target outlined in the Reforming Emergency Care document (DH 2001). 98% of patients attending emergency departments were required to be assessed, investigated and discharged or admitted within four hours of registering in the ED – the 'four hour target'. A positive result has been the development of a whole systems approach to managing emergency care admissions. The most successful hospital trusts were those in which the four hour target was embraced hospital wide (Kings Fund 2013). One consequence of the four hour target was a focus by health care analysts on information and data analysis which influenced the smooth flow of patient admissions and discharges. Valuable concepts and principles about how patient flow could be successfully managed were discovered and the success of this is a key factor which acts to improve the ability of an ED to meet the four hour target (Kings Fund 2013). One of the challenges in achieving patient flow through the UK healthcare system is an

average occupancy rate of hospital inpatient beds of just over 85% in England in 2010 (Dr Foster 2012). An important implication for the NHS is that when bed occupancy rates rise above 85% this impacts negatively on the quality of care provided to patients and the smooth running of the hospital (Jones 2011). At certain points in the year, some hospitals report 100% bed occupancy rates and average midweek bed occupancy of 88%. It has been found that for 48 weeks of the year, most acute trusts report bed occupancy of over 90% (Dr Foster 2012) suggesting a negative impact on patient flow both at the 'front door' of the hospital in the ED, as well as on effective discharge plans for patients. There is likely to be increased pressure to discharge patients prematurely, who are then at risk of readmission, so contributing to the bigger problem (Morris et al 2012).

Factors contributing to rising healthcare admissions and emergency care attendances include an ageing population, increasing medical knowledge and treatment options, and an increasingly informed public with high expectations of healthcare (The Nuffield Trust 2010).

Annually increasing attendances to EDs, with over 21 million attendances each year in the UK (The Kings Fund 2013), is not a sustainable situation. Consequences include 'gridlock' and crowding in EDs, with patients waiting over four hours for admission, due to lack of inpatient bed availability (Hoot & Aronsky 2008). Various authors have analysed the factors which contribute to patients attending the ED (Benger & Jones 2008; Health Care Commission 2008; Purdy 2010; Salisbury et al 2010; Fernandes 2011; Carson et al 2012; Kings Fund 2013). The findings suggest that:

- A significant percentage of patients have consulted another healthcare provider before attending the ED;
- Patients make the correct choices when assessing the severity of their healthcare problem;
- The availability of particular types of service (apart from an ED) varied by time of day and day of the week;

- Any attempt to establish a diversionary scheme away from or out of the ED would require similar levels of resources and skills as that required to assess and treat such patients in a well organised ED.

The analysis concludes that there is a lack of published evidence to support the previously popular belief that the provision of urgent care centres and walk in centres will reduce attendances at the ED. There is some evidence to suggest that while this type of healthcare provision offers patients choice in where they access urgent care; it may also increase the total burden on the NHS by addressing previously unmet needs.

The phrase 'ED crowding' describes overwhelmed emergency departments unable to operate effectively for long periods of time; a consequence of which is that sub optimal care is delivered to patients.

The College of Emergency Medicine (2012:2.) states

*'Crowding is happening; if ambulances cannot offload, if there are long delays for high acuity patients to see a doctor, there are high rates of patients with a 'Left before being seen' code, there are more trolley patients in the ED than there are cubicle spaces, or if patients are waiting more than two hours for an in-patient bed after a decision to admit has been made.'*

This definition represents a synthesis of the available evidence around the subject, which also identifies the causes and consequences of ED crowding (Weiss et al 2004; Hoot & Aronsky 2008; Moskop et al 2009; Beniuk et al 2011; Morris et al 2012; CEM 2012).

The causes of ED crowding can be summarised as:

- Input issues; increasing numbers of patients attending EDs, alongside increased acuity.
- Throughput issues; problems identified as occurring within the ED which may contribute to overcrowding such as ineffective processes, or a lack of

effectively evaluated interventions such as 'streaming' and 'rapid assessment, triage and treatment' (CEM 2012) being implemented.

- Output issues; such as obstacles to effective flow through the ED, including a lack of appropriate speciality inpatient beds within the hospital. The main reason for this has been identified as either an inadequate number of inpatient beds, or a mismatch between the availability of beds and peaks in ED attendances.

(Cooke et al 2004; Hoot & Aronsky 2008; Morris et al 2012).

The problems related to overcrowding in EDs are of concern because longer waiting times delay diagnosis and treatment (White et al 2011), which can lead to significant negative outcomes including reducing the quality of care that patients receive, an increased length of stay for non-elective admissions and an increase in mortality and serious incidents (Han et al 2007; Moskop et al 2009; Carr et al 2009; CEM 2012.) Additional adverse consequences of overcrowding are also emerging. Goldman et al (2006) found a higher risk of unplanned returns subsequently when patients were seen and discharged at times of high patient attendance. Other issues include staffing problems, such as difficulty in recruiting and retaining the nursing workforce and medical trainees to emergency medicine programmes, as well as a national problem in recruiting to substantive consultant posts in emergency medicine (Fatovich & Hirsch 2003; Walley 2003).

Having reviewed the policy context in emergency care it becomes increasingly clear that the twentieth century UK healthcare model in which junior doctors in training provide the majority of the 168 hour emergency care service every week, is no longer possible or desirable. The increasing number of patients attending EDs annually (particularly out of hours), crowding in the ED and the associated increase in morbidity and mortality, and strong evidence suggesting that safer and more effective patient care with better patient outcomes is delivered by senior clinical decision makers (Morris et al 2012), means that the work force and skill mix model in EDs are already changing radically (CEM 2012).

## **1.2 Alternative access to urgent care**

Over the past two decades different models of delivering urgent healthcare have been developed and embedded with varying degrees of success into the UK health care system. These have included the development of alternatives to EDs for accessing urgent and primary care services. Alternative services include walk in centres, minor injury units and urgent care centres whereby patients can access walk in services for minor illnesses and injuries. These services tend to be staffed exclusively by nurses, although out of hours GP services may be attached to some centres. The first 20 pilot walk in centres were set up in 1999 at a cost of £31 million (Salisbury et al 2002). The concept of the walk in centre was to build on, and not compete with or duplicate, existing services (Health Service Circular 1999/0116). Walk in centres were never intended to deliver 24 hour care. However a national evaluation of walk in centres undertaken in 2001 found that while walk in centres appeared to offer some benefits for patients and safe care of high quality, this was at additional cost when compared to accepted care (Salisbury et al 2002) This evaluation also found a lack of coherence in the urgent care system, with many overlapping initiatives to improve access and many provider organisations offering similar services (Salisbury et al 2002). The emerging evidence suggests that walk-in centres are not effective in reducing emergency department attendances, except where they are co-located and integrated with emergency departments, and may simply be meeting a previously unmet need rather than diverting patients away from EDs (Chalder et al 2003).

Urgent care centres were developed in response to the government's vision of integrated urgent and emergency care, which included a national number: NHS 111. Clinical commissioning groups (CCGs) developed a model of care based on the growth of urgent care centres against a background of the need to contain cost and in an attempt to reduce attendance at (EDs), whilst meeting the rising expectations of the public. Carson et al (2012) found little published evidence that the development of urgent care centres reduced attendances at EDs, and some suggestion that they might increase the total burden on the NHS by increasing choice and therefore generating additional demand. They also found that many urgent care centres were meeting



primary care needs rather than reducing attendances at EDs. When examining workforce development; the creation of alternatives to ED attendance has been a significant driver in the adoption and dissemination of non-medical roles. Walk in centres and Urgent Care centres are staffed mainly by nurses and nurse practitioners and have created a different healthcare environment with a greater role for the nurse management of patients compared with previous routine care in EDs (Salisbury et al 2007).

### **1.3 Rationale for the study**

Published work evaluating and exploring the acceptability to both patients and healthcare professionals of non-medical roles in the delivery of emergency care has shown that generally such roles have become accepted (Carter & Chochinov 2007). The College of Emergency Medicine (2012) has published a taskforce interim report, written in response to the workforce and skill mix challenges that EDs are facing in light of increasing patient acuity and attendances and a significant reduction in junior doctors seeking to train in the speciality of Emergency Medicine. This report recommends that, despite a lack of national competencies and standardisation in education preparation and scope of practice, non-medical roles such as ENPs are a solution to stable and sustainable core staffing in future EDs. It is interesting to note that the changes in contemporary urgent healthcare practice (which overlaps with the recent change of government in the UK) have not been evaluated or published. Lattimer et al (2007) suggest that the proliferation of new roles and the speed of change in emergency care has made evaluation difficult. This timeframe has coincided with changes in how the NHS is operating and the new quality outcomes, as well as the findings of the Mid Staffordshire Inquiry (Francis Inquiry Report 2013), which are being embedded into, and will guide, the new structures of the NHS as from April 2013.

It is important to define the scope of practice of non-medical roles such as the ENP and ESP in the ED. There are various definitions regarding the ENP role as it has developed

historically. There has been a move away from a standard definition of tasks which the ENP undertakes to a description of the level of practice:

*'receiving patients with undifferentiated and undiagnosed problems and making an assessment of their health care needs, based on highly-developed nursing knowledge and skills, including skills not usually exercised by nurses, such as physical examination'*

(RCN 2012:4)

Traditionally an ENP will be an experienced emergency care nurse with a minimum of five years experience in the speciality. They will have undertaken an educational preparation programme at under or post graduate level within a university and will be expected to have developed clinical examination and diagnostic reasoning skills, as well as an evidenced based knowledge of the common treatment and management of injury and illness presentations to the ED. ENPs will be expected to request investigations and interpret these in light of the clinical findings, and be able to formulate a differential diagnosis and utilise clinical reasoning and decision making skills in order to treat, refer, admit or discharge a patient from their care. Increasingly ENPs have undertaken a further professional qualification in order to become an independent prescriber as well. There is an expectation that increasingly ENPs have moved from having a limited scope of practice characterised by protocol driven care to a broader scope of practice encompassing any patient who presents at the "minors" area of an ED (Lowe 2010; Fotheringham et al 2011). This role is very different to that of the triage nurse in the ED, who makes an assessment of patient priority based on presenting symptoms and administers simple analgesia under a patient group direction (Ganley & Gloster 2011).

A definition of ESPs is:

*'physiotherapists working at a high level of expertise who have extended their practice and skills in a specialised clinical area'* Chartered Society of Physiotherapy (2008)

An ESP working within an emergency department might be expected to see any patient presenting with a musculoskeletal injury, but not patients who present with an

illness or a wound associated with their injury. ESPs will use clinical examination skills, be expected to request plain x-rays and interpret these in light of the clinical findings, and be able to formulate a differential diagnosis and utilise clinical reasoning and decision making skills in order to treat, refer, admit or discharge a patient from their care. Recent legislation now allows physiotherapists to undertake additional professional registration in order to be able to independently prescribe, but to date no physiotherapists have completed this registration, and it is more common for them to administer or dispense medicines under a patient group direction, as does the triage nurse in the ED.

#### **1.4 Unplanned follow-up visits**

One marker used to assess the adequacy of care is the number of unplanned follow-up visits at which the patient needs further treatment or assessment that had not been arranged at the initial assessment (Sakr et al 1999). Eight new clinical quality indicators for EDs in England were implemented in April 2011. One of these indicators concerns the unplanned re-attendance rate to the ED within seven days of the original attendance. Importantly the percentage re-attendance rate has been identified as ideally falling within a range of 1-5%, and should not be zero. There is some limited international evidence which supports this acceptable unplanned return rate (Goldman et al 2006; Nunez et al 2006; Hastings et al 2007; Wu et al 2008; Milbrett & Halm 2009; Kuan & Madadevan 2009; Van der Linden et al 2010; Dinh et al 2012). The College of Emergency Medicine have identified that the reasons that patients re-attend an ED are multi-factorial. Empirical evidence suggests it is predicted and expected that a small percentage of patients will re-attend if their condition suddenly worsens or if they have an unrelated second condition. In addition there will be patients with complex mental health needs and/or a dual diagnosis who will by virtue of their co morbidities and lifestyle attend frequently. It has been argued that the indicator reflects not only the quality of care delivered in the ED but also the local primary and secondary care interface and the ability to effectively manage patients in the community if appropriate (CEM 2012).

Conversely, reviewing rates of re-attendance that are very low (e.g. <1%) is an additional marker of the quality of care delivered. This level may reflect a very risk adverse approach to care and be associated with an inappropriately high admission or planned follow up rate elsewhere in the health care system, creating an additional burden. More positively it may reflect effective primary care systems of care for patients who attend with complex needs. A rate of unplanned re-attendance above 5% is likely to be reflective of poor quality care. The limited evidence base, both nationally and internationally, suggests that the rate of unplanned re-attendance is a very useful surrogate indicator of the quality of care that an ED delivers. Data collected around this indicator may in future contribute to the knowledge base in the currently under researched area of unplanned follow up rates. Nunez et al (2006) reported that unscheduled patient returns to the ED were important markers of care as they were associated with medical errors in diagnosis, prognosis, treatment, follow up care and information.

Until recently the evidence found that patients seen by ENPs were less likely to seek unplanned follow up when compared with patients seen by other healthcare professionals. However recent emerging evidence suggests that this trend may be changing as McClellan et al (2013) discovered that patients seen by ENPs had a significantly higher unplanned follow up rate. If the increased rate of unplanned follow up is an ongoing trend, then despite high patient satisfaction scores, the potential economic burden of increased unplanned follow up with another service may make a non-medical service less desirable for commissioners. What previous studies in the UK have not explored is specifically why patients seek unplanned follow up after treatment and discharge from an emergency department. This is important because it may facilitate the development of strategies to reduce reconsultation rates, thereby improving the quality, convenience and cost-effectiveness of urgent healthcare. This research will also explore public perceptions of, and confidence in, doctors and nurses in emergency healthcare

## **1.5 Summary of Research Design**

### **1.5.1 Aims of the study**

This exploratory mixed methods study set out to:

- Explore the reasons why patients who have been treated in an inner city emergency department seek unplanned follow up with another healthcare professional.
- Explore whether the patient knew which professional group they were treated by in the emergency department.
- Identify whether the patient's perception of, and confidence in, the healthcare professional had an impact on their subsequent decision to seek follow up.

### **1.5.2 Data Collection Methods**

A combination of data collection methods was used to answer the research questions. The study consisted of three phases. In phase one, the researcher administered an exit questionnaire to patients who consented to take part in phases one and two of the study as they left the ED. Two weeks later the patients were telephoned by the researcher and a short interview was conducted over the telephone. When this phase of data collection had been completed, after recruiting two hundred patients, patients were invited to take part in phase three of the study and attend a focus group to explore why they had or had not sought unplanned follow up after their initial visit to the ED.

### **1.5.3 Development of the study: Key practical issues**

It is widely acknowledged that undertaking research in emergency care settings is challenging for a variety of reasons. These include the fact that visits to the ED tend to be single, unscheduled attendances, suggesting that there is no long term patient-clinician relationship and, as a consequence, patients feel little loyalty or allegiance to the ED when asked to take part in a research study (Kendrick et al 2007). There are

also practical issues such as the potential vulnerability of patients, and physical practicalities such as the ability to sign a consent form when suffering from an upper limb injury.

In order to address these issues a pragmatic approach underpinned the design and development of the study, drawing on learning from previous studies undertaken in this and other EDs (Binks et al 2005; Hoskins et al 2005; Kendrick et al 2007; Hoskins & Bengner 2013).

#### 1.5.4 Thesis Structure

This doctoral thesis presents the findings of a mixed methods three phase study which was undertaken between 2010 and 2012 within an inner city emergency department of an acute National Health Service (NHS) Foundation Trust. Chapter two explores and critically evaluates the key literature and research studies which are relevant to a number of areas that inform and underpin the original research questions. These areas include:

- Patient satisfaction with healthcare delivered in emergency care settings.
- The development of the role of the (ENP) within emergency care settings in the United Kingdom (UK).
- The educational preparation of ENPs in the UK.
- The perceptions of healthcare professionals about the role of the ENP
- The acceptability of newer non-medical roles to patients in emergency care.

A critical review of the current literature was been undertaken in order to establish the existing knowledge in this field and provide contextualisation of the doctoral study.

The methodological approach and data collection methods employed within the three phases of the study are discussed in Chapter Three. The use of a pragmatic approach utilising mixed methods for data collection is discussed. The challenges of recruiting patients within an emergency care setting are highlighted and explored, as well as the

ethical issues which needed to be considered. Reflexivity is also explored, to illustrate how my professional role may have impacted directly and indirectly on the study.

The results of the study are reported in Chapter Four, and presented from the three phases of the study.

Chapter Five discusses the analysis and implications of the findings and focuses on the extent to which the main research questions and aims have been answered. The discussion also focuses on the findings in relation to current literature in the field, and analyses and highlights the new aspects of this research, and how it builds on and extends existing work. The issue of the generalizability of the findings is discussed. The study's implications for the development of the non-medical workforce in emergency settings, as well as for future workforce planning, are considered.

## **1.6 Summary**

This chapter has introduced the UK policy context and aims of this thesis. The research was motivated by current political changes which are influencing and shaping the delivery of healthcare in the NHS, with the pressure of delivering a more efficient emergency care service which can safely manage increasing demand within the vastly changing landscape of the NHS from 1<sup>st</sup> April 2013.

## **2. Literature Review**

### **2.1 Introduction**

The previous chapter introduced the current emergency health care context in the UK where the study was undertaken. This chapter reviews and analyses the current literature which formed the basis of knowledge for the study. The literature reviewed focuses on the establishment and evaluation of non-medical roles in emergency care as well as the evidence base surrounding patient satisfaction with non-medical healthcare professional roles in emergency care.

### **2.2 The aims of the literature review were:**

- To establish the national and international evidence which examines the scope of practice of emergency nurse practitioners, and extended scope physiotherapists.
- To establish the national and international evidence which explores patient satisfaction with non-medical roles in emergency care.
- To establish the national and international evidence which explores the acceptability of non-medical roles in emergency departments from healthcare professional perspectives.
- To establish the unplanned follow up rate associated with patients being seen by a non-medical health care professional in the emergency department.

### **2.3 Methods**

The literature search was undertaken initially in October 2009 and again in January 2013 using the search terms described in Table 1. The following databases were searched: British Nursing Index; CINAHL PLUS; International Bibliography of the Social Sciences; MEDLINE and SPORTDiscus from 1980 to 2013. Also searched were The Cochrane Library and the National Institute for Health and Clinical Excellence (NICE).

The grey literature was reviewed using Google Scholar, Department of Health resources and unpublished theses. The initial results from the database searches were



screened using the title and abstract and all appropriate articles were obtained. The full text articles were then reviewed against the inclusion criteria and the reference lists screened for additional papers. National and international articles were included.

### 2.3.1 Inclusion criteria

The literature review focused on evidence from adult and paediatric emergency care settings. It included any patient satisfaction research and healthcare professional perceptions of the professional roles being examined in this review. The review included research and literature reviews as well as editorials to encompass all aspects of the available evidence in this area. Only Emergency Nurse Practitioner and Extended Scope Physiotherapist roles in urgent and emergency care were included.

### 2.3.2 Exclusion criteria

This search excluded any data source which was not available in English as translation services were not available. The literature review did not evaluate research from urgent care centres, telephone services (such as NHS Direct) or out of hours general practitioner (GP) services. This was in an effort to preserve a homogenous base from which to draw the evidence relating specifically to emergency care. Additional non-medical health care professional roles such as the Emergency Care Practitioner role were excluded because these roles would not form part of the investigation described in this thesis

	<b>Search History</b>	<b>Results 1980-2013</b>
Search	Databases searched:  British Nursing Index; CINAHL PLUS; International Bibliography of the Social Sciences; MEDLINE and SPORTDiscus	
1	Emergency Nurse Practitioner\$	11,052
2	Extended Scope Physiotherapist\$	15
3	Scope of practice	10,764
4	Patient satisfaction	97,968
5	Accident adj2 emergency or emergency department\$ or emergency room\$ or emergency service\$ or casualty	83312
6	Unplanned return rate or reattendance	109
7	2 & 4	1
8	1 & 4	607
9	2 & 3	7
10	1 & 3	192
11	5 & 6	5

*Table 1: Search History*

256 abstracts were inspected and 93 full text articles were obtained. Of the 93 papers reviewed, 62 were included in the literature review. A further 4 papers were included after snowballing of the reference lists making a total of 66 papers. The excluded

articles were felt to add little to this review in that they were evaluating different issues within emergency care.

Four randomised trials conducted in the United States (Powers et al 1984), the UK (Sakr et al 1999 and Cooper et al 2002) and Australia (Chang et al 1999) have evaluated patient satisfaction with emergency nurse practitioners compared to medical staff in emergency care. One additional randomised control trial was found which evaluated clinical outcomes and performed an economic analysis of outcomes comparing ENPs, doctors and extended scope physiotherapists in the ED (McClellan et al 2013)

The results of the literature search have been summarised in the following table and Prisma flow charts after the literature has been discussed in the context of the study.

#### **2.4 The Context of the Development of the ENP Role in the UK**

The role of the emergency nurse practitioner (ENP) developed in the UK in the 1980s. The role evolved from the work of Stilwell et al (1987) who developed the concept of a nurse practitioner in primary care in the early 1980s. In emergency care the first formally recognised ENP service was established in 1986 at Oldchurch Hospital in Romford in order to address the findings of a Community Health Council Survey which found that patients were dissatisfied with the long waiting times to be seen (Head 1988). Before this, it was generally acknowledged that senior nurses in emergency departments had been unofficially undertaking the tasks of assessing and discharging patients without reference to a medical colleague (Jones et al 1986). Since then, the ENP role has been legitimised and ENP services have been established nationally (Tye 1997). An important early driving force behind the expansion and development of this role has been to manage the increasing workload in a more expedient manner which frees medical staff to see more urgent and more complex patients (Woolich 1992). The evidence suggests that the role was developed sporadically and locally in response to local requirements and increasing patient demand, and unfortunately a nationally co-ordinated plan did not support the development and implementation of the role (Meek et al 1995).

Another pertinent issue was a change in the requirements of medical training. The training requirement for experience in an accident and emergency setting as a junior doctor was removed from national surgical training, and this considerably reduced the number of junior doctors applying for posts. As a result some posts were left unfilled in a service which had an increasing demand placed upon it (Keltie et al 1997). The Audit Commission (1996) identified the potential impact that ENPS could have on reducing waiting times for patients with minor injuries and recommended that ENPs could contribute to service delivery more efficiently through better training, appropriate protocols and being shown how to interpret x-rays and through the dispensing of medicines.

## **2.5 Healthcare Policy and the Interprofessional Agenda**

During the last decade there has been an emphasis in the previous government's policy to develop the workforce skills in health care and in order to achieve this, greater emphasis on the development and importance of interprofessional working. That policy agenda was driven by the need to develop a flexible workforce which was responsive to the needs of a rapidly changing service (Miers 2010). Carrier & Kendall (1995: 18) define the concept of interprofessional working as 'the sharing of knowledge; respect for the individual autonomy of different professional groups...; the surrender of professional territory where necessary; and a shared set of values'. An operational definition of interprofessional working on which this thesis is based is offered: 'interprofessional working describes the effective integrated working relationships in order to meet service delivery needs by more than one professional group of health care professionals. The common goal is to deliver a safe and effective service to patients. Professional boundaries and knowledge and skill sets may overlap (to a lesser or greater extent) between the professional groups.'

Interprofessional working was introduced in terms of substitution of roles in the National Health Service (NHS) in the NHS Plan (DH 2000). This policy document discussed the commitment of the NHS to redesign the health service around the needs and concerns of patients and to achieve this by providing flexible services and

professionals who were able to deliver appropriate care through the end of demarcation lines especially between doctors and other health care professionals. The then Secretary of State's introduction to the NHS Plan identified that 'for the first time, nurses and other health professionals will be given the bigger roles that their qualifications and expertise deserve' (DH 1999:2). Following this a series of policy documents and initiatives consistently supported the notion that the boundaries, particularly between nursing and medicine, needed to be further broken down (DH 1997; 1999; 2001; 2002; 2003; 2006; 2008a; 2008b; 2011) in order to improve timely access to health care by developing team working skills, maximising the contribution of all staff and modernising education and training while also expanding the workforce. In the NHS Next Stage Review (DH 2008b) there was again an emphasis on raising the quality of healthcare delivered and a challenge to healthcare staff to innovate within and improve the services they offer. Darzi (DH 2008b:7) crucially raised the issue of accountability and responsibility of teams and individual healthcare professionals; 'every clinician will have the opportunity to be a practitioner, partner and leader and to take collective accountability for performance'. He was seen to advocate a model of professionalism which interestingly reflects Davies' (1995) new model of professionalism; interdependent decision making in teams, reflective practice and collective responsibility. Skinner (2007) suggests that while the Department of Health strongly promotes interprofessional working and shared learning, there is in fact scepticism towards this agenda from the medical profession who fear that interprofessional working seeks to produce and equip cheaper generic health care workers and de-professionalise medicine. In fact Larkin & Hooker (2010) go as far as to suggest that the substitution of medical practitioners for non-medical healthcare professionals such as nurse practitioners has been covert in emergency care. This change in service delivery, they suggest, has been driven by employers and managers (arguably for the reasons outlined above) and not by consenting patients who have been given a choice; which the authors argue has led to patient confusion as to the title and remit of the healthcare professional treating them. They go on to argue that

this is unethical based on the bioethical principle of respect for autonomy (Beauchamp & Childress 1994; Martin et al 2002).

Alongside the previous and current government's initiatives around access to timely healthcare, other key drivers supporting the interprofessional agenda have been; rising healthcare costs, patient healthcare needs (such as complex patient care pathways) (Lewy 2010), highly publicised reviews into the failure of health and social care such as The Bristol Inquiry (Kennedy 2001), and the Laming Inquiry (Laming 2003; 2009), Winterbourne View (DH 2012), and Francis Report (2013) reducing service fragmentation and promoting quality patient care (Barr et al 2005).

In many specialties, changes in medical education have seen a decrease in the available medical workforce, and some posts have been left unfilled. This was the initial driving force in the development of the Emergency Nurse Practitioner role, and it could be argued that the Audit Commission (1996) specifically encouraged a task substitution approach to the development of this role in order to address service delivery deficiencies as quickly as possible. More recently, additional drivers have been the introduction of specific targets set in order to meet the then national policy agenda of timely access to care for patients (Reforming Emergency Care 2001) as well as national changes to medical training (Modernising Medical Careers DH 2008c).

### 2.5.1 The evidence for interprofessional working

Interestingly in a health system based on evidence based health care there appears to be disagreement within the literature as to whether interprofessional working does in fact improve patient outcome. The Cochrane systematic review of interprofessional working reviewed 89 papers and found that none met the stringent methodological inclusion criteria (Zwarenstein *et al.* 2001). As a result no conclusive evidence of the effectiveness of interprofessional working in relation to healthcare practice or outcomes was found. More recently, Barr et al (2005) reported findings from a selection of 107 papers (admittedly with less stringent methodological criteria than that of the Cochrane review) and found that there was a very significant positive

reporting bias. Skinner (2007) suggests that despite this, it is important to realise that the body of interprofessional evidence is evolving and developing and that it has become clear that a qualitative approach to evaluating interprofessional working should be accepted. Evidence of small evaluations from health care practice are emerging and demonstrating locally the positive impact on outcome that interprofessional working can have within teams and for patients (Fear & de Renzi-Brett 2006; Dawson 2007; Hudson 2007). While robust large scale evidence is not yet available in order to underpin this change in policy, a pragmatic approach may be taken if there is acceptance that many of the characteristics of good interprofessional working (West 1997) mirror those of the attributes within the literature on successful team work in health care (Headrick *et al.* 1998).

## **2.6 Emergency care policy development**

The introduction of the 'four hour target' in 2001 was a turning point in the development and adoption of non-medical roles such as the Emergency Nurse Practitioner. Interestingly, there is a lack of any robust evidence on which the 4 hour emergency access target was originally based. Mortimore & Cooper (2007) suggest that it appears to have been founded on the basis that the public perceive speed of treatment to be synonymous with quality (Office for Public Management 1999) and that there is a correlation between patient waiting times and staff satisfaction (Alberti 2004). It is claimed (DH 2001) that the four hour target was based on the findings of Cooke *et al* (2002). However this work was based in a different context and setting, finding that the introduction of different processes such as streaming of patients could reduce waiting times by 30% when experienced decision makers were the first clinician to see the patient as they arrived at the Emergency Department (ED). One way of achieving a 'quick win' was the speeding up of the development of non-medical roles in emergency care which had been slowly and gradually developing for some time in order to meet the increasing numbers of patients attending emergency departments.

Table 2: A&E Clinical Quality Indicators with a Performance Management Trigger (DH 2010)

Indicator	Title	Performance management trigger
2	Unplanned re-attendance rate	A rate above 5%
3	Total time spent in the A&E department	A 95th percentile wait above 4 hours for admitted patients and with the same threshold for non-admitted
4	Left without being seen rate	A rate at or above 5%
6	Time to initial assessment	A 95th percentile time to assessment above 15 minutes for ambulance cases
7	Time to treatment	A median wait above 60 minutes

The current coalition government replaced the four hour waiting time standard in emergency and urgent care with eight A&E clinical quality indicators in April 2011. The argument was that the previous ‘target’ was to be replaced with clinically relevant indicators of quality care rather than time driven targets in order to encourage organisations to examine the quality of the care delivered by emergency departments. It would appear however, that NHS trusts within England at least have seen the clinical indicators with a performance management trigger attached to them as ‘targets’ which needed to be achieved as soon as they were implemented in 2011, driven primarily by the fact that the indicators were included within the approach to performance management under the operating framework for the NHS in England in 2011-12. Interestingly, there is now evidence that the clinical indicators will continue to be monitored at a local rather than national level in 2012-13 and 2013-14, leaving the four hour operational standard of 95% of patients being seen within four hours as the national A&E measure for timely access to care within the NHS Constitution (DH 2013).



## **2.7 The evolution of non-medical roles in emergency care**

Brook & Crouch (2004) suggest that within emergency departments during most of the twentieth century, there was clear demarcation between the roles of nurse and doctor, where patients received a consultation and examination for diagnostic purposes by doctors who would prescribe treatment and delegate its provision to nurses. However while this may have been the official truth, unofficially there is evidence to suggest that nurses particularly had been expanding their role for some time.

Hughes (1988) in his study undertaken within a 'casualty' department in the 1980s found that the distinctive features of 'casualty' nursing replicated the findings of Stein (1967) with nurses' increased involvement in decision-making affecting diagnosis and treatment as well as the flattened hierarchy found in 'casualty' departments when compared to wards. He also observed that the medical dominant relationship was weakened by the informal interactions of the nursing staff with the medical staff, in the form of subtle cues to medical staff, the heavy work demands associated with the triage function of the department, the potential urgency of treatment and the short term nature of most medical appointments. These all increased the nurses' influence within the department as well as on nursing and medical relationships. Further ethnographic work in healthcare settings has confirmed that informal boundary blurring between medicine and nursing has been prevalent for many years. Annandale et al (1999) found that it fell to the senior nursing staff to harness the unpredictability, so the workload could be accommodated within the resource constraints. This resulted in the nurses organising the work of the medical staff as well as taking on task substitution roles such as suturing and cannulation in order to speed up the flow of patients through the department and try to reduce bottlenecks in the process.

## **2.8 Evaluation of the ENP Role**

The benefits of ENP services are clearly outlined in the literature and include reduced patient waiting time, increased quality and cost-effective care, reduction in complaints, increased patient satisfaction with services, non inferior or better patient outcomes

when compared with junior doctor medical care and increased staff morale (Alongi et al 1979; Powers et al 1984; James & Pyrgos 1989; Rhee & Dermeyer 1995; Coopers & Lybrand Health Practice 1996; Dolan et al 1997; Dunn 1997; Maclaine 1998; Mabrooke & Dale 1998; Sakr et al 1999; Chang et al 1999; Barr et al 2000; Byrne et al 2000 a, b; Clarke 2000; Walsh 2001; Cooper et al 2002; Sakr et al 2003; Barr et al 2004; Magahy & Lloyd 2004; Moser et al 2004; Foreron & Martin-Misener 2005; Halter et al 2007; Carter & Chochinov 2007; Jarvis 2007; Wilson & Shifaza 2008; Corbett & McGuigan 2008; Thraser & Purc-Stephenson 2008; Sandu et al 2009; Jennings et al 2009; Hart & Mirabella 2009; Larkin & Hooker 2010; Dinh et al 2012). Steiner et al (2009) reported further advantages in their study when comparing shifts when nurse practitioners were on duty in an Australian ED compared with shifts when just junior doctors were on duty. Their findings suggested that the introduction of ENPs may lower the proportion of patients who left the ED without waiting for treatment, because they were seen in a more timely way, reduce the proportion of low acuity patients seen by emergency physicians thereby freeing them up to see the more acutely ill and diagnostically challenging patients, as well as expediting the throughput of a subgroup of less urgent patients. Further authors have also reported the usefulness of a professional group such as ENPs in filling the 'workforce gap' by delivering elements of the emergency and urgent care service against a background of rising patient attendances and ED overcrowding (Hoyt & Proehl 2010).

Fotheringham et al (2011) point out that hardly has a role been more extensively examined and evaluated in the literature as the emerging role of the ENP. Previously no significant differences have been found in terms of health outcomes for patients as well as resource use or cost when comparing junior doctors and ENPS in emergency care settings (Sakr et al 1999; Laurant et al 2005). Higher levels of patient satisfaction as well as superior clinical documentation relating to ENP care have been reported when compared with the care delivered by junior doctors (Cooper et al 2002). Sandhu et al (2009) also reported that ENPs scored more highly when rated on patient education and counselling about a patient's medical condition or management plan than ED medical staff.

Comparison studies and a meta analysis have been carried out which showed that the NPs can provide treatment that is equivalent to that of medical colleagues (Spitzer et al 1974; Sakr et al 1999, 2003; Mundinger et al 2000; Horrocks et al 2002; Cooper et al 2002; Wilson et al 2009 ; Van der Lindon et al 2010; Colligan et al 2011; Dinh et al 2012; McClellan et al 2013). It is important to note however, that two of these studies examined equivalent care in primary rather than emergency care (Mundinger et al 2000; Horrocks et al 2002) .

### 2.8.1 Extended Scope Physiotherapists in the ED

There is a paucity of published evidence regarding the role of the ESP working in the ED. Anaf and Sheppard (2007) published a systematic review of physiotherapy services in the ED. This was a high quality systemic review which examined nine papers, it is of note that only two of the studies related to ESPs independently managing patients in the ED (Richardson et al 2005; McClellan et al 2006). Richardson et al's (2005) study which compared ESP outcomes compared with those of ENPs and doctors reported that the ESP group were equivalent or superior to routine care regarding patient satisfaction and that there were no significant differences between the professional groups in time to return to work, costs, pain or health scores at 6 months.

McClellan et al (2006) carried out a single site prospective cohort study comparing patient satisfaction between ESPs, ENPs and doctors for the treatment of ankle injuries. While the patient satisfaction questionnaire return rate was low at 45%, the results did demonstrate that patients were significantly more satisfied with their treatment by an ESP compared to ENPs or doctors ( $p=0.048$ ).

Ball et al (2007) carried out a single centre retrospective case control study comparing the notes of ESPs, ENPs, and doctors in the management of adult peripheral acute musculoskeletal injuries. The results reported no significant differences between the professional groups in the number of patients sent for x-ray or in the proportion of subsequent fractures found. It was found that the ESP group did refer significantly

more patients on for follow up physiotherapy than the other professional groups in the study.

McClellan et al (2013) carried out a single site pragmatic randomised control trial of equivalence. They evaluated the cost effectiveness of soft tissue management by ESPs, and ENPs when compared to routine care (treated by doctors) in adult patients who presented to the ED with a peripheral soft tissue injury. The results reported that ESPs and ENPs were at best equivalent and could not cost less than routine care. ENPs and ESPs incurred greater indirect costs because of higher follow up rates in primary care. When only costs incurred in secondary care were considered, it was found that ENPs were equivalent in cost to routine care while ESPs were either equivalent or possibly cheaper than routine care.

An important point to consider is that when ESPs are compared with ENPs and doctors the patient population by definition will always be very narrow and specific (musculoskeletal injuries), because this is the entire scope of practice of an ESP.

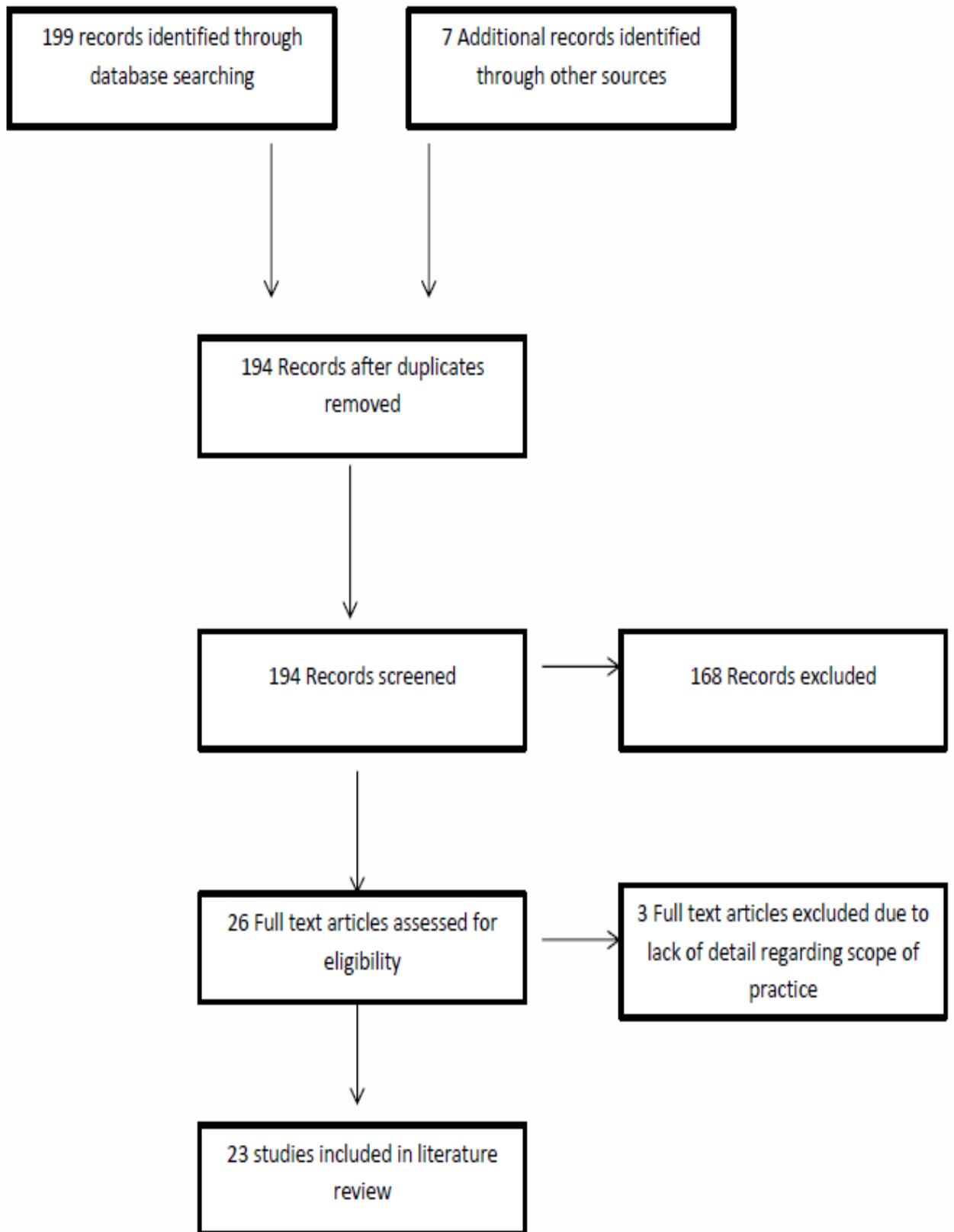


Table 3: Prisma Flow Diagram: Scope of Practice of ENPs and ESPs

Table 4 Scope of Practice of Emergency Nurse Practitioners and Extended Scope Physiotherapists

Authors	HCP	Study design and sample size	Scope of practice/Findings
McConnell et al (2013)  Ireland	ENP	Survey using questionnaires of 16 EDs and 4 MIUs in Northern Ireland. Sample population were ENPs	<ul style="list-style-type: none"> <li>• Response rate of 70% (n=42). Management of minor illness and injury under protocols, requesting and interpretation of x-rays, non medical prescribers or PGDs, request and interpret blood tests, referral rights. Concluded that while ENPs were working at a level beyond initial registration they were not working at an advanced level of practice.</li> </ul>
Thompson and Meskill (2012)  Ireland	ANP and ED registrar	Retrospective comparative audit undertaken on a single site. Sample size of 964 patient records.	<ul style="list-style-type: none"> <li>• Minor illness and injury in patients aged over 3 years old. X-ray requesting and interpretation- upper and lower limbs. ANPs had lowest false negative fracture reports (0.2%) and ED registrar the highest (1.8%). False positive reporting: ANPs 2.4% and ED registrars 4.4%.</li> </ul>
Fotheringham et al (2011) UK	ENP	Longitudinal survey of EDs (97 in 1998 and 93 in 2009).	<ul style="list-style-type: none"> <li>• 39 EDs (71%) managed patients within a protocol. Request and interpret x-rays. 33 (60%) EDs had ENPs who could prescribe. Minor injury and illness, fast tracking patients with fractured neck of femur.</li> <li>• Majority : wound closure, upper limb and girdle injuries and lower limb injuries but not lower girdle, back or neck injuries.</li> <li>• Conclusion: Roles that evolve naturally adopt a non-uniform level of practice.</li> </ul>

<b>Authors</b>	<b>HCP</b>	<b>Study design and sample size</b>	<b>Scope of practice/Findings</b>
Abbot et al (2010) USA	ENP and PA	Descriptive, cross-sectional design. Population: ED managers. 93/158 (59%) response rate.	<ul style="list-style-type: none"> <li>• 3 questions were asked in order to understand the ENP and PA scope of practice: 50% of the respondents indicated that NPs/PAs saw emergent (higher acuity) as well as non emergency patients.</li> </ul>
Wilson & Shifaza (2007) Australia	ENP	2 phases of data collection. Retrospective case note audit (n=100) and patient satisfaction questionnaire (n=57/100).	<ul style="list-style-type: none"> <li>• Minor injuries (uncomplicated fractures of upper and lower limbs), wound care, facial injuries, ENT problem, skin problem, suture removal, dressings, contraceptive request.</li> <li>• x-ray requests and interpretation.</li> </ul>
Lee et al (2007) Australia	ENP	Questionnaire survey. 76 medical and nursing staff completed the survey .	<ul style="list-style-type: none"> <li>• Scope of ENPs: limited prescribing, initiation of diagnostics, referral to medical specialists, admitting and discharging privileges, approval of absence certificates.</li> </ul>
McGee & Kaplan (2007) USA	ENP	Qualitative pilot exploratory study. Convenience sample of ED managers. 4 participants; semi-structured interviews.	<ul style="list-style-type: none"> <li>• Injuries, upper and lower respiratory problems, fluorescein staining, 12 lead ECG interpretation, simple suturing, FB removal from soft tissues.</li> </ul>
Currie et al (2007) UK	ENP	Literature review.	<ul style="list-style-type: none"> <li>• Comparison of ENP role in UK, Australia and New Zealand. Highlighted the contrasts in academic level of preparation, scope of practice and regulation.</li> <li>• Scope of practice; although there was diversity, common presentations across all 3 countries include: minor illness and injury, wound care, prescribing or</li> </ul>

Authors	HCP	Study design and sample size	Scope of practice/Findings
			dispensing medicines via PGD. Widespread use of departmental clinical practice guidelines.
McClellan et al (2006) UK	ESP & ENP & doctor	Single site, observational study. Patient satisfaction questionnaires and assessment of functional outcome. Patient satisfaction: 45% response rate (351/780). Assessment of outcome: 22% response rate at 1 month (91/489).	<ul style="list-style-type: none"> <li>• Soft tissue injuries, associated fractures, x-ray interpretation and dispensing analgesia under PGDs.</li> </ul>
Considine et al (2006) Australia	ENP	Prospective cohort study.	<ul style="list-style-type: none"> <li>• Minor injury and illness presentations.</li> <li>• In children, lower limb injury, upper limb injury, laceration and wounds, plaster of Paris (POP) problems, diarrhoea and vomiting (D&amp;V), minor burns, upper respiratory tract infections (URTI).</li> <li>• X-ray interpretation in adults and children</li> <li>• Referral to GPs was the most common discharge referral (73.5%). This reflected the outcomes of Cole &amp; Rameriz (2000) who found 50% of discharged patients were referred to primary care provider by ENPs.</li> </ul>
Richardson et al (2005) UK	ESP	Non-inferiority randomised controlled trial. 766 patients recruited.	<ul style="list-style-type: none"> <li>• Inclusions: Minor injury presentations including neck and back pain, and limb injuries. Exclusions: infections, open wounds, eye problems, FBs, poisoning, less than 18 years old, spinal-neurological injuries, suspected fractures/dislocations or conditions requiring immediate pain relief.</li> </ul>



<b>Authors</b>	<b>HCP</b>	<b>Study design and sample size</b>	<b>Scope of practice/Findings</b>
Mills and Mc Sweeney (2005) USA	ENPs	Descriptive, exploratory study. Data used from National Hospital Ambulatory Medical Care Survey, which is collected annually by the National Centre for Health Statistics. Includes 1545 EDs.	<ul style="list-style-type: none"> <li>• Primary reasons for ED visits for patients who saw NPs were minor injury and illness, including respiratory symptoms, chest pain, fever, abdominal pain, and ENT problems. Investigations included blood tests and chest and extremity x-rays.</li> </ul>
Moser et al (2004) Canada	ENP	213/246 patients enrolled (87%). Prospective descriptive study, convenience sampling.	<ul style="list-style-type: none"> <li>• Minor injury (extremity trauma) and illness presentations, wound care.</li> </ul>
Sakr et al (2003) UK	ENP	Descriptive study. 51,043 patients.	<ul style="list-style-type: none"> <li>• Minor injuries, x-ray interpretation.</li> </ul>
Marr et al (2003) UK	ENP	Telephone survey, semi-structured interviews	<ul style="list-style-type: none"> <li>• 35/48 EDs in Northern &amp; Yorkshire region of England took part.</li> <li>• 24 hour service in only 10 sites. 22/35 services had lower age restrictions. All sites covered minor injuries, only 1 mentioned minor illness. Referral rights for all sites. Only 5 sites mentioned requesting and interpreting x-rays. PGDs at 3 sites.</li> </ul>
Cooper et al (2002) UK	ENP & SHO	Randomised controlled trial. Satisfaction survey of 199 patients and audit of documentation.	<ul style="list-style-type: none"> <li>• Ankle/foot sprain, wrist/hand sprain, wounds, burns and scalds contusions, hand/wrist fracture, ankle/foot fracture, minor head injury.</li> <li>• X-ray interpretation.</li> </ul>
Byrne et al (2000)	ENP	An evaluation of 3 models of care in 2 EDs and an	<ul style="list-style-type: none"> <li>• Inclusions: 17 years or older, minor injury.</li> <li>• Exclusions: involved in RTA, assault, in police custody,</li> </ul>

<b>Authors</b>	<b>HCP</b>	<b>Study design and sample size</b>	<b>Scope of practice/Findings</b>
UK		MIU. 181 patients recruited across the 3 sites.	deliberate self harm, soft tissue injury above the knee or elbow, x-ray interpretation.
Cole (2000) USA	ENP	Pilot study evaluating scope of practice of 3 ENPs.	<ul style="list-style-type: none"> <li>• Minor injury and illness, ENT problem, skin, musculoskeletal, endocrine, cardiovascular, psychiatric complaint.</li> </ul>
Sakr et al (1999) UK	ENP and junior doctors	RCT, 1453 patients recruited.	<ul style="list-style-type: none"> <li>• Hand/finger injury, ankle/foot injury, laceration, crush injury or sprain.</li> <li>• XR requesting and interpretation.</li> </ul>
Chang et al (1999) Australia	ENP and medical officers	<p>RCT (pilot study). 232 patients included. Telephone interviews with 132 patients to assess satisfaction.</p> <p>Assessment of level of primary care NPs could deliver. Comparison of wound management and blunt limb trauma by NPs and medical officers.</p>	<ul style="list-style-type: none"> <li>• Included: blunt limb trauma, wound management.</li> <li>• Excluded: Children &lt; 10 years old.</li> <li>• Pts with significant presenting &amp; continuing vital signs alterations.</li> <li>• Pt presenting with multiple trauma.</li> <li>• Pts presenting with high risk mechanisms of injury.</li> <li>• Pts presenting with concurrent health problems in need of urgent treatment.</li> <li>• Pts requiring resuscitation.</li> </ul>
Mabrook & Dale (1998) UK	ENP	Retrospective audit of notes and x-ray interpretation skills over 12 months. Also patient satisfaction survey (269/313): 6 patients would have preferred to see a doctor.	<ul style="list-style-type: none"> <li>• X-Ray interpretation.</li> <li>• ENPs could request X-rays of shoulder to fingers, knee to toes and chest and abdomen in ingestion of FB.</li> <li>• PGDs for simple analgesia, antibiotics, tetanus toxoid.</li> <li>• Exclusions: Head injury, displaced fractures, lacerations</li> </ul>

Authors	HCP	Study design and sample size	Scope of practice/Findings
			involving deep structures, DVT, facial injuries and chest pain, children under 2 years old, pregnant women.
Tye et al (1998) UK	ENP	Postal survey of UK EDs. 274/293 replies (94% response rate). Only 36% provided a formal ENP service.	<ul style="list-style-type: none"> <li>• 82 EDs: in(84% ENPS authorised to request x-rays, but only 35 (36%) allowed interpretation.</li> <li>• 67 (68%) dispensed medicines under PGDs.</li> </ul>
Blunt (1998) USA	ENP, ED consultants and registrars.	Retrospective notes review of 6 consultants, 2 ENPS and 51 registrars over 1 year.	<ul style="list-style-type: none"> <li>• Minor injury and illness presentations, e.g. haemorrhoids, puncture and needle stick injuries, mite infestations, mechanical back pain, trunk &amp; head injuries, extremity injuries, prescription refills. X-ray interpretation.</li> </ul>

## 2.8.2 Scope of Practice

There is little explicit evidence available discussing or comparing the scope of practice of these roles, with only two studies identified that specifically investigated the scope of practice of the ENP (Cole & Rameriz 2000; Considine et al 2006). However 21 other studies when scrutinised have included some information about scope of practice which was analysed and synthesised as part of the literature review. The 23 studies spanned 15 years (1998-2013) and four countries (USA, UK, Australia and Canada). It is of note that the majority of the literature examined in UK based studies tends to focus on patient satisfaction or evaluation studies, rather than scope of practice.

A major limitation of Considine et al's (2006) cohort study was that the scope of only one individual was explored. This ENP was able to prescribe medicines and request investigations such as plain x-rays, CT scans and ultrasound as well as blood tests. In this study 51% of the ENP managed patients required imaging which is congruent with another study that reports imaging rates of 42% (Cole & Ramirez 2000). Interestingly referral to the patients' GP was the most common discharge referral (73.5%) and this finding reflects that of Cole & Rameriz (2000) who found that 50% of discharged patients were referred to primary care. Again Cole & Rameriz's pilot study focused only on the scope of practice of 3 ENPs, suggesting that the findings are not generalisable more widely with such small numbers. The majority of published evidence appears to suggest that ENP practice is largely focused around the assessment and management of patients who present with minor injury or minor illness, both in the UK and internationally. Unsurprisingly the scope of practice appears to have expanded over time, and it seems that requesting a varying spectrum of plain x-rays is now within the accepted remit of ENPs and ESPs both nationally and internationally.

More recently, Thompson & Meskell (2012) reported that ENPs had a lower false negative fracture reporting rate (2.4%) when compared with their ED registrar colleagues who had a higher rate of 4.4%. This may suggest that ENPs no longer have to justify their practice in x-ray interpretation skills (Freij et al 1996; Meek et al 1998; Overton-Brown & Anthony 1998; Sakar et al 1999; Tachakra 2002; Sawaby-Larsen

2009) and have now legitimised these skills by outperforming their medical colleagues in some instances.

It would also appear from the analysis of scope that ENPs in the UK have the most limited range of practice described in the literature compared with their counterparts worldwide, and this is an important consideration when looking at patient satisfaction studies as well as clinical outcomes. An explanation of this finding may be the lack of standardisation of educational preparation of ENPs in the UK.

The scope of ENP practice remains highly variable as does the educational preparation of ENPs in the UK. Despite the considerable variability in scope of practice there is widespread agreement that the ENP must possess the knowledge and skills to make autonomous decisions regarding selected patient populations as well as be accountable for their actions when managing patients with undifferentiated presentations and discharging patients (Crinson 1995; Walsh 2000).

Presently there is no agreed national education programme for preparing ENPs for clinical practice. The Royal College of Nursing (2012) have provided broad guidance in the level of educational preparation required for ENPs working at an advanced level; that of a masters degree, as well as some broad ranging competencies. The Nursing & Midwifery Council has provided a definition of advanced practice but despite several reviews (NMC 2005) has declined to take the decision to make the title 'advanced nurse practitioner' a registered qualification with a separate entry on the nursing register. This has not been an issue for non-medical prescribers where very specific competencies and academic content of preparatory courses run by higher education institutes in the UK have been laid down by a national body (the NMC). As a consequence, an accepted standard of knowledge and skills for a registered non-medical prescriber in the UK has been made explicit from the inception of the concept; that healthcare professionals who are not a registered medical practitioner or dentist can safely prescribe medicines. Arguably as a direct consequence of this nationally standardised approach to assessing competence, irrespective of professional background, the initial wave of concerns around the safety of allowing non-medical

practitioners to prescribe drugs has now receded to a large extent (Courtney and Carey 2008). This acceptance has been achieved in a relatively short time; when it is considered that the British National Formulary (BNF) was opened up to non-medical prescribers in 2006. A subsequent change in legislation in 2012 has meant that the remaining restrictions surrounding the prescribing of controlled and unlicensed medicines has now been removed for registered non-medical prescribers (HSC 2012/06).

Compare this approach to the painful progress of educational preparation programmes for the ENP role, which began in the 1980s where the historical gold standard for educational preparation was a three week course in Southend. The development of local 'in house' courses grew alongside the English National Board (ENB) A33 course 'Developing Autonomous Practice' which was a nationally recognised course, until the Nursing and Midwifery Council superseded the UKCC as the governing professional body for nursing and midwifery. The ENB was dissolved and courses which did not lead to registration on the NMC register were left to be developed locally in HEIs. The RCN developed and accredited a BSc (Hons) Nurse Practitioner course but this ran from very few centres and local courses were developed in order to meet the local workforce development needs of NHS trusts. The lack of standardisation of academic preparation and lack of standardisation of the content of such academic programmes means that the scope of practice in different EDs is understandably variable, again undermining the professional identity of the ENP role nationally in the UK.

Regionally acute trusts and higher education institutes have developed educational preparation programmes for non-medical roles such as Emergency Nurse Practitioners. The strongest and most positively evaluated education programmes appear to share common characteristics: health care professionals working in clinical practice deliver the programme content, an interdisciplinary approach to programme delivery is taken (lecturers may be physiotherapists and doctors as well as ENPs and university lecturers), using a variety of teaching and assessment methods (which arguably may be

already successfully embedded in medical education), for example a visit to the anatomy laboratory where specific areas of anatomy are learned by observing dissected cadavers and the use of objective structured clinical examinations (OSCEs) in order to assess students learning, knowledge of anatomy, clinical reasoning and decision making and diagnostic skills (Redshaw & Hankey 2001; Mason et al 2005; Livesley et al 2009). The use of action learning sets to explore professional practice issues such as role boundaries, power relationships and the issues associated with developing and defining autonomous practice and interprofessional working and boundaries have also been well evaluated (Fotheringham 2013). Involving clinical mentors in the students' clinical workplace in the assessment of clinical competence has encouraged a partnership approach to educating and developing the scope of practice and knowledge of student ENPs, but disturbingly student ENPs increasingly report how difficult it is to access mentorship in practice as well as opportunities for observation in practice due to the increasing pressures associated with service delivery and the increase of lone working practitioners in minor injury and urgency care centres (Livesley et al 2009). This exemplifies the lack of standardisation locally when it comes to mentorship and teaching opportunities in practice. Because the title nurse practitioner or the knowledge and skills of advanced practice for nursing are not recognised as a registered qualification with a professional governing body such as the NMC the specific professional standards have not been laid down, nor has a prescriptive educational programme been developed.

The reasons behind the lack of an additional registered qualification for nurse practitioners are long standing and complex. Despite pressure from professional groups such as the Royal College of Nursing, Association of Advanced Nursing practice Educators (AANPE) and various speciality professional forums who have continued to call for regulation of the title nurse practitioner and advanced nurse practitioner, the NMC have resisted this. There would be an enormous financial burden in the setting up of a separate register for nurse practitioners with a protected professional title. Regulation would mean additional infrastructure as well as standards for education, supervision and assessment. It is unlikely that the burden of this initial and on-going

cost could be tolerated by the potential registrants. Another component of the argument against regulation is that there is little evidence to suggest that the public are at increased harm from nurses working under the title nurse practitioner as there have only been a small number of nurse practitioners referred to the NMC fitness to practice panel.

The Council for Health Regulatory Excellence (CHRE 2009) has argued robustly against the need for regulation stating that in most instances, professional codes of conduct provide adequate safeguards for patients. The CHRE argues that individual practitioners are accountable for not practising outside their sphere of competence, knowledge or skills. Interestingly this statement from the CHRE appears repeatedly in the literature as the argument against regulation. However Brooke & Rushforth (2011) argue that the CHRE also points out that 'where the nature of a profession's practice changes...to such a significant extent that their scope of practice is fundamentally different from that at initial registration, regulatory bodies may need to consider whether action is necessary to assure the professionals fitness to practice in the context of a very different nature of practice where risk to the public is evident' (CHRE, 2009: 1). This, Brooke & Rushforth (2011) strongly argue, means that nurse practitioners and particularly ENPs practice significantly outside of their initial scope of practice at registration. The previous health secretary Andrew Lansley suggested in response to the call for regulation of professions that as part of the bigger political drive to deregulate, local governance mechanisms might be better suited to overseeing practice of unregulated groups such as nurse practitioners (DH 2011) rather than national regulatory bodies. A compromise has been suggested that the development of a voluntary agreement might work to a nationally agreed set of standards for advanced practice (CHRE 2009; DH 2010; DH 2011).



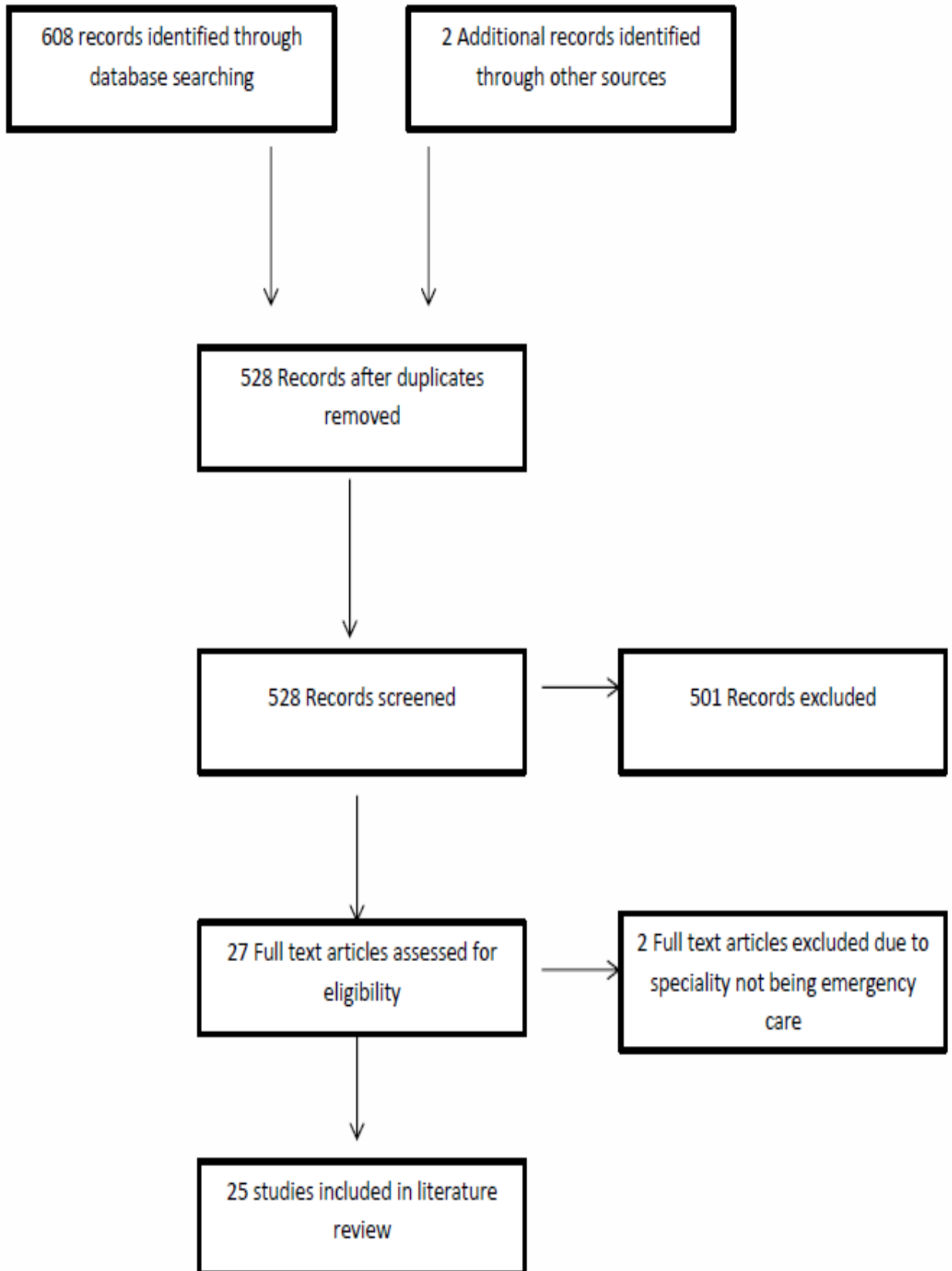


Table 5: Prisma Flow Diagram: Patient satisfaction with ENPs and ESPs

Table 6 Patient Satisfaction with Non-Medical Health Care Professionals

<b>Authors</b>	<b>HCP</b>	<b>Study design</b>	<b>Outcomes</b>
Dinh et al (2012) Australia	ENP & Doctors	Observational study using a convenience sample.  The quality of care was measured using patient satisfaction; follow up health status and missed fractures or unplanned re-consultation within 14 days.	<ul style="list-style-type: none"> <li>• 320 patients enrolled; 236 patients submitted completed survey forms.</li> <li>• Patient satisfaction scores were significantly higher in the ENP group compared to the doctor group.</li> </ul>
Hart & Mirabella (2009) USA	ENP	Descriptive study, convenience sample.	<ul style="list-style-type: none"> <li>• 65% of patients would be willing to be treated by a nurse practitioner during their visit. Patients who had already been treated by a NP in the past were more willing to be treated by a NP.</li> <li>• 17% (n=32) were not sure, 17% (n=33) were not willing to be treated by a NP for their current condition.</li> </ul>
Jennings et al (2009) Australia	ENPs & Drs	Self administered patient questionnaire based on validated tool, 16 questions.	<ul style="list-style-type: none"> <li>• 202 patients: 103 in ENP group and 99 in doctor group.</li> <li>• High level of patient satisfaction with ENP care.</li> </ul>
Sandu et al (2009) UK	ENPs & Drs	Stratified sample of 296 videoed consultations analysed. Physician & patient satisfaction questionnaire completed after each consultation.	<ul style="list-style-type: none"> <li>• ENPs &amp; GPs focused more on patient education &amp; counselling about the medical condition or therapeutic regime than ED doctors. Consultation length not greater for ENPs than doctors. SHOs had slightly lower patient satisfaction ratings than other groups.</li> </ul>

<b>Authors</b>	<b>HCP</b>	<b>Study design</b>	<b>Outcomes</b>
Thraser & Purc-Stephenson (2008) Canada	ENPs	All patients who received care from an ENP in 6 EDs over 1 week were asked to answer a self administered 21 item questionnaire. Likert scale.	<ul style="list-style-type: none"> <li>• 113 patients completed the survey.</li> <li>• 71% indicated they would prefer to see an ENP (29% preferred to see a doctor).</li> <li>• Patients with higher levels of income reported higher levels of satisfaction with the attentiveness displayed by ENPs.</li> </ul>
Corbett & McGuigan (2008) Scotland	ENPs & Drs	40 item multiple choice questionnaires.	<ul style="list-style-type: none"> <li>• 73% return rate (n= 1000).</li> <li>• Overall patient satisfaction higher among patients seen by a doctor rather than an ENP.</li> <li>• Most significant feature in patients dissatisfaction was practitioner's lack of social skills.</li> <li>• Lack of professional confidence an issue worth pursuing.</li> </ul>
Wilson & Shifaza (2008) Australia	ENPs	Patient satisfaction survey mailed to 100 patients seen by ENPs. Data analysed using SPSS.	<ul style="list-style-type: none"> <li>• 80% return rate: only 57% valid returns.</li> <li>• 91.3% respondents were satisfied with overall care.</li> <li>• 93% agreed that ENP was competent.</li> <li>• 31.6% thought they had waited too long.</li> <li>• 84.2% did not have doubts about ENP ability.</li> <li>• 70.2% were very satisfied with care received, and 21.1% somewhat satisfied.</li> </ul>
Jarvis (2007) UK	ENPs	Patient satisfaction survey. ENPs distributed questionnaires to patients	<ul style="list-style-type: none"> <li>• Return rate 85% (n=427).</li> <li>• 99% did not mind being seen by an ENP.</li> <li>• 4% did not know who carried out their treatment.</li> </ul>

Authors	HCP	Study design	Outcomes
		prior to ED discharge. Results analysed using SPSS.	<ul style="list-style-type: none"> <li>97% had confidence in the ENP.</li> <li>76% said the ENP service was excellent.</li> <li>As waiting time increased, patients were more likely to rate the service as very good rather than excellent.</li> </ul>
Carter & Chochinov (2007) Canada	ENPs	Systematic review. 12 papers analysed looking at patient satisfaction.	<ul style="list-style-type: none"> <li>Patient satisfaction consistently high for both ENPs and doctors, but often higher for ENPs.</li> <li>Reasons for patient dissatisfaction were unresolved problems (66% for ENPs v 26.7% for doctors) and slow time to care by ENPs 33.3% v doctors 53.3%) (Powers et al 1984)</li> <li>Moser (2004) 72.5% patients said they would be willing to see an ENP, although 21% expected to see a doctor. 12.1% unwilling to see an ENP. 25% said they would see an ENP if it would result in cost savings to the health system and 37.5% would agree if it would result in shorter waiting times.</li> </ul>
McClellan et al (2006) UK	ESPs/ENPs/Drs	Patient satisfaction questionnaire mailed to patients within a week of visit to ED if treated for an isolated soft tissue ankle injury.	<ul style="list-style-type: none"> <li>45% return rate (n= 351).</li> <li>ESP achieved higher levels of patient satisfaction than doctors or ENPs.</li> <li>ESP had reduced waiting times and spent nearly twice as much time with patients compared with doctors or ENPs.</li> </ul>
Bazian (2005) UK	ENPs & Drs	Literature review.	<ul style="list-style-type: none"> <li>In 5 studies patients significantly more satisfied with NP care rather than medical care. In 3 other studies no significant difference found.</li> </ul>

Authors	HCP	Study design	Outcomes
			<ul style="list-style-type: none"> <li>• ENP consultations found to be significantly longer than doctor consultations.</li> </ul>
Forgeron & Martin-Misener (2005) USA	Paediatric ENPs	Survey.	<ul style="list-style-type: none"> <li>• 100 parents of children.</li> <li>• 83% of parents to see ENP for current complaint.</li> </ul>
Moser et al (2004) Canada	ENPs	Convenience sampling. Questionnaire self-administered. 9 questions. Data analysed using SPSS.	<ul style="list-style-type: none"> <li>• 97.2% response rate (n= 207).</li> <li>• 72.5% indicated a hypothetical willingness to be treated by an ENP.</li> <li>• 21.3% said they would be comfortable only if they were also assessed by a doctor.</li> <li>• 12.1% said they were unwilling to be treated by an ENP; willingness to be treated by an ENP was independent of age, gender or educational status.</li> </ul>
Megahy & Lloyd (2004) UK	ENPs	Patient satisfaction survey.	<ul style="list-style-type: none"> <li>• 181 patients.</li> <li>• Higher satisfaction for ENPs.</li> <li>• Found better communication and better instructions from ENPs.</li> </ul>
Barr et al (2004) UK	ENPs	Patient satisfaction survey.	<ul style="list-style-type: none"> <li>• 241 patients.</li> <li>• &gt;80% willing to see an ENP again.</li> </ul>

Authors	HCP	Study design	Outcomes
Cooper et al (2002) UK	ENPS	Convenience sampling. RCT. Self completed patient satisfaction questionnaire modified from previously validated questionnaire.	<ul style="list-style-type: none"> <li>• 84% response rate (n= 168).</li> <li>• Patients appeared very satisfied with the level of care received irrespective of being treated by ENP or SHO.</li> <li>• Reported that ENPs easier to talk to, given information on accident &amp; illness prevention and they were given enough information about their injury. Overall more satisfied with the treatment provided by ENPs that they were with SHOs.</li> </ul>
Byrne et al (2000) UK	ENPs & Drs	Evaluation of 3 models of emergency care. Adaptation of validated questionnaire, self-administered.	<ul style="list-style-type: none"> <li>• 181 patients responded.</li> <li>• Patients very satisfied with care given by all HCP. Those seen by ENPs significantly more likely to have been given health advice and information. They were found to be significantly less worried about their health. Suggested that although ENPs spent longer with patients, this resulted in an improvement in the quality and depth of information and advice provided.</li> </ul>
Barr et al (2000) UK	ENPs	Survey by patient questionnaire.	<ul style="list-style-type: none"> <li>• 241 respondents (78% response rate).</li> <li>• Majority of patients had not heard of an ENP before their visit to ED.</li> <li>• 100% of patients were satisfied with the treatment by an ENP and all indicated they would see the ENP again. 96.3% would see an ENP if their injury was slightly more serious.</li> </ul>
Chang et al (1999)	ENPs	Randomised clinical trial.	<ul style="list-style-type: none"> <li>• 169 patients, 4 ENPs.</li> </ul>

Authors	HCP	Study design	Outcomes
Australia			<ul style="list-style-type: none"> <li>No difference in satisfaction between ENPs and doctors. Patients were willing to see an ENP again.</li> </ul>
Sakr et al (1999) UK	ENPs	Randomised clinical trial with satisfaction questionnaire	<ul style="list-style-type: none"> <li>831 patients surveyed.</li> <li>Patients satisfied with their care most of the time.</li> <li>11/831 patients reported their care was poor or very poor: 3 of ENP group and 8 of SHO group.</li> </ul>
Mabrook & Dale (1998) UK	ENPs	Patient satisfaction questionnaire.	<ul style="list-style-type: none"> <li>269 patients responded (86% response rate).</li> <li>262 ENP patients satisfied with treatment or advice given, and no objections to being treated by a nurse.</li> <li>6 patients would have preferred to see a doctor.</li> </ul>
Rhee & Dermeyer UK (1995)	ENPs	Survey.	<ul style="list-style-type: none"> <li>60 patients in 2 equal groups.</li> <li>High satisfaction rate for both doctors and ENPs.</li> </ul>
Powers et al (1994) USA	ENPs	Case control study.	<ul style="list-style-type: none"> <li>62 patients. Higher satisfaction with ENPs. ENP patients had better understanding of advice and treatment.</li> <li>74% of ENP patients completely satisfied vs. 48% patients seen by doctor.</li> </ul>
James & Pyrgos (1989) UK	ENPs	Case control study.	<ul style="list-style-type: none"> <li>400 patients.</li> <li>94% of patients would see an ENP satisfaction, not directly</li> </ul>

Authors	HCP	Study design	Outcomes
			compared with doctors.
Alongi et al (1979) USA	ENPs	Survey.	<ul style="list-style-type: none"> <li>• 50 patients.</li> <li>• Patients felt examination was 'good' in 92% of cases. &gt;90% would see NP again for the same problem.</li> </ul>



### 2.8.3 Patient satisfaction with non-medical roles in emergency care

Twenty-five papers were identified that addressed this issue spanning 33 years (1979-2012) and four countries (UK, USA, Australia and Canada). The literature has widely reported the satisfaction of patients with non-medical roles in primary care (Horrocks et al 2002). While the studies identified in this review all report high levels of patient satisfaction with non-medical roles in the ED, one study reported that overall patient satisfaction was higher in patients seen by a doctor rather than an ENP (Corbett & McGuigan 2008). The most significant feature of patient dissatisfaction in this study was a practitioner's perceived lack of social skills irrespective of their professional background. Patients also cite a lack of professional confidence particularly in the ENP group as a reason for dissatisfaction, and this is perhaps an issue worth pursuing in future studies.

While all other studies reported that the majority of patients would agree to see an ENP in the future this still meant that significant numbers of patients would prefer to see a doctor. In Wilson & Shifaza's study (2008) 7% of patients did not agree that the ENP was competent to treat them. Another study reported that patient satisfaction was consistently high for both ENPs and doctors and often higher for ENPs (Carter & Chochinov 2007), but in exploring the reasons for patient satisfaction one of the key issues was unresolved problems and ENPs scored poorly in resolving problems when compared with their junior doctor colleagues (66% v 26.7%). Interestingly, this study also reported that while 72.5% of patients were willing to see an ENP, 21% of respondents expected to see a doctor. Thraser & Purc-Stephenson (2008) reported similar findings with 71% of respondents indicating they would prefer to see an ENP but 29% preferring to see a doctor. While participants in Halter et al's (2007) study agreed that their treatment by a non-medical practitioner was 'right' only 58% of patients reported that their health was better following treatment by a non-medical practitioner. It could be argued that if this had been a comparative study with other professional groups that the results would have had a similar low outcome.

Previous studies looking at patient satisfaction in emergency care have identified themes which are consistently important to patients. It could be assumed that if the identifiable issues related to patient satisfaction are addressed within the initial ED presentation by the consulting healthcare practitioner then it could be argued that this will lessen the chance of the patient seeking unplanned follow up either at the ED or at another healthcare provider in primary care. In their systematic review Bengner & Taylor (2003) identified three key areas which contribute to patient satisfaction: interpersonal skills and perceived staff attitudes; provision of information and explanations; aspects related to waiting times.

These findings are reflected in the studies reporting high patient satisfaction with non-medical practitioner's roles. The issue of better communication and quality and depth of advice and information provided by ENPs was identified as a key factor in high patient satisfaction in several studies (Powers et al 1984; Byrne et al 2000; Cooper et al 2002; Megahy & Lloyd 2004; Thraser & Purc-Stephenson 2008; Sandu et al 2009).

Welch (2010) reviewed the available evidence around patient satisfaction research applied to the ED in the last 20 years and discovered that the findings demonstrated that patients, while not necessarily reliable assessors of clinical quality regarding their care, did demonstrate core themes associated with high ED satisfaction including empathy and attitude, acceptable waiting times, technical competence of the healthcare professional, effective pain management and information giving (Hall & Dornan 1988; Magaret et al 2002; Boudreaux and O'Hea 2004; Bursch et al 1993; Kennedy et al 2008).

These common themes are reflected in the work of Elmqvist et al (2011) who interviewed 14 patients and families about their first encounter with emergency care at the ED. They discovered that patients gave analogies of a visit to the ED as a game of which they did not know or were not allowed access to the existing rules, they felt as though they were moved around from room to room and likened the ED to a hidden board game. They felt that the rules of the game were not communicated and that as a result conflicting expectations were experienced by the patients especially if they had

visited another healthcare provider beforehand and had been referred to the ED with an expectation of what should happen to them from their referring provider. These findings may explain to some extent the consistently high satisfaction ratings ENPs are found to receive in the literature as patients report high levels of attentiveness displayed by ENPs. Thraser & Purc-Stephenson (2008) found ENPs were better at communicating and gave better instructions about care (Megahy & Lloyd 2004), and reported that ENPs are easier to talk to, and give information on accident and illness prevention (Cooper et al 2002).

Jarvis et al (2007) found that as the waiting time increased the service delivered by ENPs was more likely to be rated as very good rather than excellent. Sandu et al (2009) found that ENPs and GPs focused more on patient education and counselling about the medical condition or therapeutic regime than ED doctors and were found to have higher patient satisfaction ratings. Interestingly they also found that ENP consultations were not longer than their medical colleagues, a finding that has been refuted in previous studies, and associated with increased satisfaction rates (Byrne et al 2000; Cooper et al 2002). However McClellan et al (2006) reported that ESPs achieved higher levels of patient satisfaction than doctors or ENPs and the ESPs which may have been related in some part to the fact that they spent nearly twice as much time with patients compared with doctors or ENPs.

While patients were not asked explicitly about their confidence in non-medical roles, an inference can be made from their response as to whether patients would agree to be seen by non-medical professionals in the future. From these studies the majority of patients reported that they would do so, indicating a high level of confidence in these professionals. A point of note is raised in Carter & Chochinov's (2007) study where 25% of the patients interviewed said they would be seen by an ENP if it would result in cost savings to the health system and 37.5% agreed if it would result in shorter waiting times. In this case it would be harder to surmise that the confidence of patients in the ENP role was high; in fact the patients may have felt that they were willing to compromise on their care for the greater good or gains in waiting time.

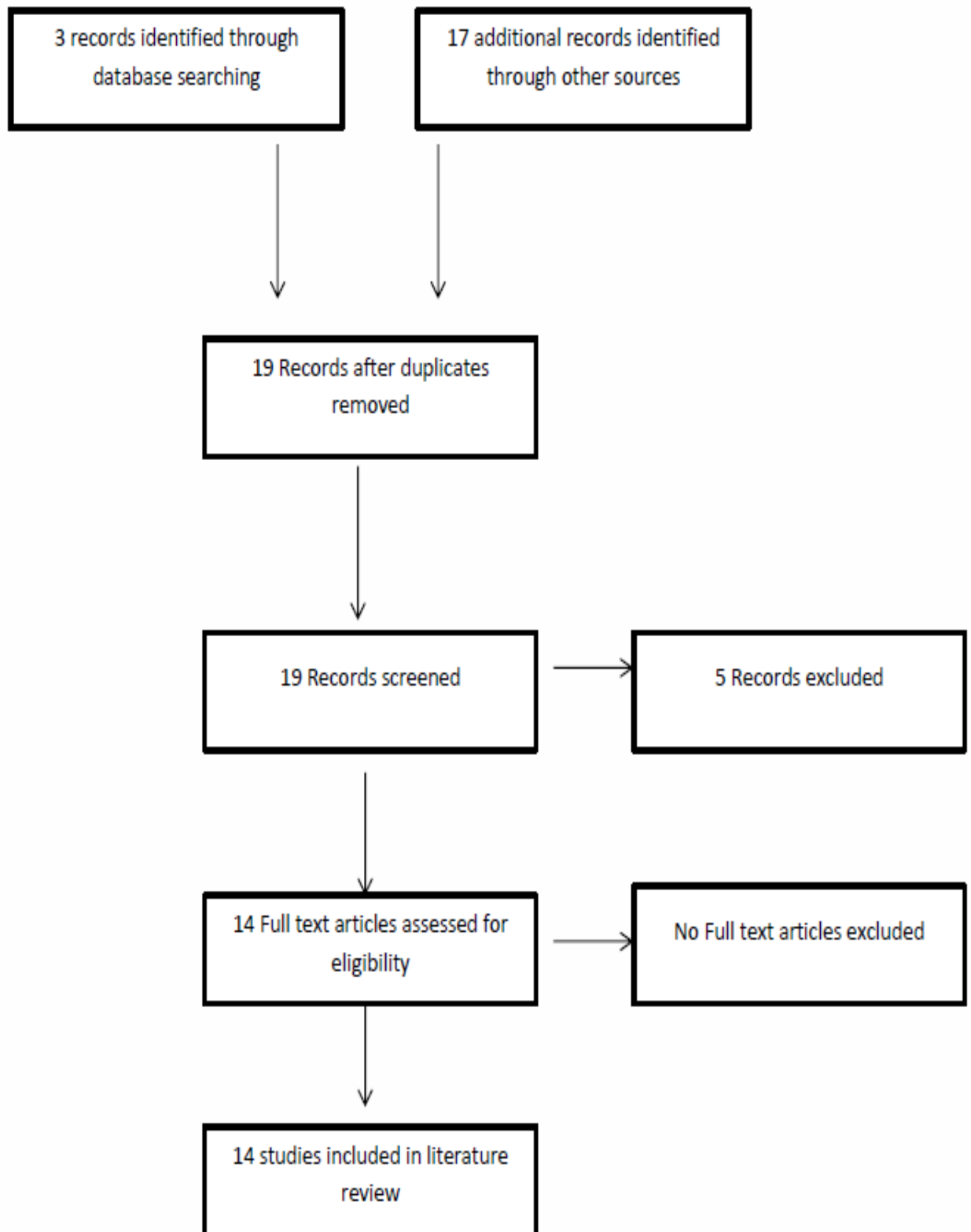


Table 7: Prisma Flow Diagram: Healthcare professionals perceptions of ENPs and ESPs

Table 8 Healthcare professionals' perceptions of non medical roles

Author	Healthcare group	Study design	Findings
Lowe et al (2013) Australia	NPs, managers, policy makers	Mixed method study. This paper reported a quantitative method, involving a questionnaire administered to a targeted population. Convenience, non-probability sample.	<ul style="list-style-type: none"> <li>172 respondents (response rate of 38%). Majority agreed there was positive regard for NP roles as well as support for NP roles. The groups suggested that they felt there was a lack of understanding of NP roles in their organisation. The respondents identified how important medical support for these roles was, as was identified funding for developing roles.</li> </ul>
Weiland et al (2010) Australia	Doctors, ED managers	Qualitative, semi structured interviews.	<ul style="list-style-type: none"> <li>95 interviews with 8 themes identified: role definition, scope and appropriateness of practice, separation/overlap of NP role and medical roles, needs of NPs, barriers to role acceptance, alternative roles suggested, perceived value of NP role.</li> </ul>
Keating et al (2010) Australia	ENP, nurse managers, project officers	Survey via questionnaire to all EDs involved in implementing Department of Human Services funded ENP projects.	<ul style="list-style-type: none"> <li>37 respondents (response rate 77%). Strong agreement that there are barriers to sustainability of the role, especially lack of ongoing funding. Other barriers included a lack of understanding from organisations and medical staff. Barriers to role progression were legal constraints and cost of further education.</li> </ul>
Melby et al (2010)	ENPs	Mixed methods design, self completed staff questionnaires	<ul style="list-style-type: none"> <li>144 respondents (response rate 28.5%) from staff (nurses, doctors, pharmacists, radiologists, radiographers). 10 patient</li> </ul>

Author	Healthcare group	Study design	Findings
UK		and semi-structured interviews with patients.	<p>interviews.</p> <ul style="list-style-type: none"> <li>Confusion exhibited by staff groups regarding the role and functions of ENPs. Concerns raised about accountability, benefits and challenges highlighted, recurring concerns about junior doctors losing experience. Strong feeling that ENPs should work within protocols.</li> </ul>
Abbott et al (2010) USA	ENP and Physician Assistants	Descriptive cross sectional survey.	<ul style="list-style-type: none"> <li>93 hospitals took part (59% response rate). 60% stated they employed ENPs and PAs to see only non emergent patient groups in EDs. Reported a good understanding of the differences between the roles, but 16.7% were unclear on the differences between the scopes of practice for ENPs and PAs.</li> </ul>
Currie & Crouch (2008) UK	ENPs and AHPs	Qualitative methods, semi-structured interviews, purposive sampling, thematic analysis.	<ul style="list-style-type: none"> <li>8 ED staff took part</li> <li>Echoed Tye &amp; Ross findings (2000)</li> <li>5 main themes found:</li> <li>Blurring of role boundaries; collaborative working, career enhancement, potential to 'skew' junior doctors' experience.</li> <li>Training, lack of standardisation.</li> <li>Drivers for change; political, 4 hr targets, general public.</li> <li>Managing risk.</li> <li>Future roles; homogenous core of emergency care clinicians.</li> <li>Greater clarification of training and scope of practice is</li> </ul>

Author	Healthcare group	Study design	Findings
			required in order to enable roles to develop more consistently
McGee & Kaplan (2007) USA	ENPs	Qualitative pilot exploratory study.  Convenience sample of ED managers.  Semi structured interviews, content analysis.	<ul style="list-style-type: none"> <li>• 4 participants</li> <li>• NPs employed by physicians.</li> <li>• Concerns about liability issues.</li> <li>• Excellent clinical skills, high levels of satisfaction with ENP performance.</li> <li>• ENPS can reduce overcrowding, reduce waiting times and increase patient satisfaction.</li> </ul>
Thraser & Purc-Stephenson (2007) Canada	ENPs	Qualitative study. Grounded theory approach. Proportional quota sampling,  Thematic analysis.	<ul style="list-style-type: none"> <li>• Semi structured interviews with 19 participants face to face and 8 by telephone. Participants: An ENP, nurse, ED manager and doctor from each of the 6 hospitals participating.</li> <li>• Again findings consistent with Tye &amp; Ross (2000) study.</li> <li>• Organisational context, ED overcrowding, depended how physician was paid: ENPs could take away personal income.</li> <li>• Role clarity, previous experience of ENPs helped. Tensions with other nurses asked to carry out treatments for ENP patients.</li> <li>• Recruitment of ENPs, difficulty recruiting to EDs, more autonomy in community, restrictions in EDs around x-ray requesting &amp; prescribing, circumventing barriers of patients having to be seen by a doctor before discharge.</li> </ul>

Author	Healthcare group	Study design	Findings
Fisher et al (2006) UK	ENPs	<p>Qualitative study. Grounded theory.</p> <p>Saturation sampling used and reached with 5 staff. Thematic analysis. Interviews using higher order headings.</p>	<ul style="list-style-type: none"> <li>• 3 ENPS and 2 consultants took part in interviews.</li> <li>• Some findings counter Tye &amp; Ross (2000).</li> <li>• <b>Quality of service.</b> ENPs saw it as a seamless, holistic service, less handovers of care. One Doctor observed ENPs care protracted.</li> <li>• <b>Patient satisfaction:</b> acknowledged by all that patients don't mind who they see if services are safe and waits as short as possible.</li> <li>• <b>Professional boundaries:</b> high quality ENP communication identified by ENPs: ENPS use same language as pts, not identified by doctors.</li> <li>• Quasi-medical role: blurring of professional boundaries significant. Doctors felt ENPs practice at SHO/middle grade level: ENPS keen not to lose nursing identity.</li> <li>• <b>Barriers</b></li> <li>• ENPs attitudes; seen as an easy life, escape night and weekend work.</li> <li>• Repetitive nature of work.</li> <li>• Threats to medical colleagues.</li> <li>• Lack of clarity about titles; wanted nationally recognised role.</li> <li>• Lack of clarity about educational standards.</li> <li>• Training of junior medical staff: doctors saw ENPS as detrimental to junior doctors training as they saw the 'easy cases' and junior doctors will know less and have had little</li> </ul>



Author	Healthcare group	Study design	Findings
			<p>experience of this patient group.</p> <ul style="list-style-type: none"> <li>• <b>Future direction; major cases</b></li> <li>• All agreed that ENP role should expand to include ‘majors’, although doctors expressed concern that ENPS did not have the educational background to be able to do this.</li> <li>• Exclusivity of ENP role; spoke of amalgamation of roles and the development of generic workers with different levels of competence.</li> </ul>
Lee et al (2007) Australia	ENPS	Quantitative study, with 21 Likert scale questions.	<ul style="list-style-type: none"> <li>• Previously validated questionnaire administered to 60 nurses and 12 doctors to explore staff knowledge of the NP role. 40% return rate.</li> <li>• 90% agreed that NPs make the ED team more effective, would improve access to emergency care. A third of staff did not have a good understanding of the NPs scope of practice.</li> </ul>
Griffin & Melby (2006) Ireland	Advanced NP in ED	Quantitative study using a questionnaire survey. 29 item Likert scale developed to measure attitudes of emergency nurses, doctors and GPs towards the development of an ANP service in Ireland.	<ul style="list-style-type: none"> <li>• 80 respondents (Response rate 74.8%).</li> <li>• 11% indicated they had a clear understanding of the ANP role. 94% agreed that an ANP service would allow doctors more time to deal with seriously ill patients and agreed that NPs would improve waiting times. 80% agreed that this service would improve the quality of the existing service.</li> <li>• 84% GPs indicated they would be happy to refer patients presenting with minor injuries to the ANPs.</li> </ul>

Author	Healthcare group	Study design	Findings
Martin & Considine (2005) Australia	ENPs	Quantitative study, using 21 Likert scale questions. Convenience sampling. Power calculation. Previously validated questionnaire. Pre and post test data. Data analysed using SPSS.	<ul style="list-style-type: none"> <li>• 104 ED staff completed questionnaire before the ENP role was implemented.</li> <li>• 79 ED staff completed the post implementation survey.</li> <li>• Looked at:</li> <li>• ENP role.</li> <li>• Requirements to become an ENP.</li> <li>• Advanced emergency nursing practice.</li> <li>• Extensions to emergency nursing practice.</li> <li>• Collaborative practice.</li> <li>• Pre test data indicated staff were generally supportive of the ENP role, but had poor understanding of how the role would function.</li> <li>• Post test data showed statistically significant increases in the understanding of the role.</li> </ul>
Tachakra and Deboo (2001) UK	ENPs and SHOs	Retrospective study of 200 sets of notes for ENPs and for SHOs.	<ul style="list-style-type: none"> <li>• 2 unexpected returns or referrals to ED for both the ENP group and the SHO group, meaning a 1% unplanned return rate for both groups.</li> </ul>
Tye & Ross (2000) UK	ENPs	Case study design. Semi structured interviews. Content analysis. Purposive sampling.	<ul style="list-style-type: none"> <li>• Respondents included 2 ED consultants, 2 ENPs, A&amp;E nurse manager, 2 junior sisters, 1 SHO, Director of Nursing Services &amp; Chief Executive.</li> <li>• 5 major themes found:</li> <li>• Blurring role boundaries.</li> </ul>

Author	Healthcare group	Study design	Findings
			<ul style="list-style-type: none"><li>• Managing uncertainty.</li><li>• Individual variation.</li><li>• Quality vs. quantity.</li><li>• Organisational context.</li></ul>

#### 2.8.4 Healthcare professionals' perceptions of the acceptability of nonmedical roles

Fourteen studies and reviews were identified that explicitly examined the perceptions of healthcare professionals regarding non-medical roles in emergency care (Tye & Ross 2000; Tachakra & Deboo 2001; Martin & Considine 2005; Fisher et al 2006; Griffin & Melby 2006; Currie & Crouch 2008; McGee & Kaplan 2007; Thraser & Purc-Stephen 2007; Lee et al 2007; Abbott et al 2010; Melby et al 2010; Keating et al 2010; Weiland et al 2010; Lowe et al 2013). A characteristic of the majority of studies is that they involve small numbers of staff, apart from the three studies which used a validated questionnaire with a Likert scale which measured attitudes and knowledge of the new roles (Martin & Considine 2005; Griffin & Melby 2006; Lee et al 2007). These studies demonstrated a varying understanding of the ENP role, but apart from the study by Weiland et al (2010) reported overall agreement that the ENP role was positive for patients in reducing overcrowding and allowing medical staff to be freed up to see more seriously ill patients.

Weiland et al's study (2010) which included 95 medical staff from 35 EDs in Australia found that only 36% of the EDs sampled actually employed nurse practitioners. The medical staff were asked to anonymously complete a questionnaire which consisted of Likert scales as well as open questions. Thematic analysis revealed that the major themes which emerged were those of: lack of clarity of the ENP role; definition of the role; concerns around scope of practice; the importance of differentiation from the medical role. The authors reported that they found the nurse practitioner role was poorly understood by ED doctors sampled and suggested that such strong opposition to the ENP role was a significant barrier to the introduction of greater numbers of ENPs as a strategy to overcome the medical workforce shortage in Australian EDs.

The remaining studies used a qualitative approach with semi-structured interviews and thematic or content analysis to interpret the data. Because of the small numbers

involved in the studies (although some authors talk about saturation sampling: Fisher et al 2006) the findings are not safely generalizable to the wider national or international health care population. Despite this, the findings of Tye & Ross (2000) have been echoed in subsequent studies (Thraser & Purc-Stephenson 2007; Currie & Crouch 2008) although Fisher et al (2006) did report some findings which countered those of Tye & Ross (2000) in that the ENPs interviewed thought of the role as an 'easy life', and thought that a positive recruitment issue would be the perception that senior nurses could get away from working night and weekend shifts by taking on the role of an ENP.

Five major themes emerge from the nine studies regarding healthcare professionals' perceptions of the role: reducing junior doctors' experience; an enhanced career structure; tension between ENPs and emergency nurses; poor role clarity; solution to managing overcrowding in the ED. The first which recurs across the studies is the potential for ENP roles to 'take away' or 'skew' the experience of junior doctors in training in emergency care (Tye & Ross 2000; Fisher et al 2006; Currie & Crouch 2008). Interestingly this medical view is only found in UK based studies and therefore seems to reflect the UK medical training system. While it is a recurring theme, there is no objective evidence to prove that this has occurred. Indeed McClellan et al (2006) may have found the answer to future models of emergency care; in streaming patients with specific injuries to specialists (who may be working in a non-medical role) at the front door to improve patient outcomes, rather than the current model of encouraging junior staff to 'learn' on patients in the emergency setting.

The second theme consistently identified is that non-medical practitioner roles offer a positive opportunity for an enhanced career structure for nurses in clinical practice (Tye & Ross 2000; Martin & Considine 2005; Fisher et al 2006; Currie & Crouch 2008). While some authors identified that the ENP role blurred role boundaries and may have produced a quasi-medical role (Fisher et al 2006) they also found that the ENPs interviewed were keen not to lose their nursing identity and identified key nursing

characteristics which they felt helped them to communicate more effectively with patients such as holism.

Another theme was the potential tension the role of the ENP had with other emergency nurses. Thraser & Purc-Stephenson (2007) identified that tensions arose when other nurses were asked to carry out treatments for patients seen by ENPs. While the nurses interviewed felt it was within their role to carry out treatments for patients seen by doctors, they felt that ENPs should carry out their own treatments; 'they are not doctors they can't tell me what to do'. It may be helpful to explore this issue in more depth as it may reflect deeper feelings of animosity towards the ENP role by nursing colleagues which have not yet been articulated in the literature, and may help to explain why ENPs can feel isolated from their professional colleagues at times (Fisher et al 2006).

The penultimate theme identified was poor clarity of the role and lack of a professional identity. Currie & Crouch (2008) was the only study to specifically mention concerns regarding the management of risk if non-medical professionals were to take on previously defined medical roles. Unexpectedly, this was not an overriding concern which was voiced throughout the studies. While all the studies made some mention of blurring of role boundaries in the introduction of new roles, some studies reported this in a more positive light than others. Currie & Crouch (2008) talked about a collaborative approach to working in the emergency department as a result of the introduction of ENPs while others reported lack of role clarity, the need for a nationally recognised role and title and educational preparation (Tye & Ross 2000; Martin & Considine 2005; Fisher et al 2006; Thraser & Purc-Stephenson 2007; Lee et al 2007).

The final major theme identified was the agreement by all authors that non- medical roles would help solve the problem of overcrowding in the emergency department and a lack of resources available to manage the consistently rising numbers of patients who accessed emergency care. In the UK studies, there was an agreement that the introduction of the 4 hour emergency access target in 2004 (DH 2001) was a major driver for the implementation or expansion of non-medical roles in emergency care

(Fisher et al 2006; Currie & Crouch 2008). Interestingly there appears to be a tension reported in some studies where ENPs interviewed felt they enhanced the quality of care delivered to patients by taking a holistic approach to patient assessment and communicating in a more patient-centred way and delivering a more seamless approach to care with less handovers of care. Conversely doctors commented that they observed that the care and patient episodes of their ENP colleagues were protracted and that the work rate of junior doctors was superior to that of ENPs (Fisher et al 2006). However objective data refutes this perception. Colligan et al (2011) discovered that ENP and emergency medicine registrars had equivalent treatment times when treating patients presenting with minor injuries, while Sandu et al (2009) found that consultation length was not greater for ENPs than doctors despite this professional group focussing more on patient education and counselling than ED doctors.

The studies identified, all reported that the introduction of the ENP role was helpful in managing patient flow, and there was an acknowledgement that patients do not mind who they see if the services are safe and waits as short as possible (Fisher et al 2006). However there were some small but important tensions identified in the semi structured interviews with medical and nursing staff which may have negative effects on the development, expansion or support of future nonmedical services in emergency care. No study reported on the confidence of healthcare professionals in the role of non-medical roles in this speciality. Perhaps the most surprising finding was the proposal by some respondents that they felt in the future a homogenous core of interdisciplinary emergency care clinicians would develop who would be generic workers in emergency care irrespective of their professional background (Fisher et al 2006; Currie & Crouch 2008).

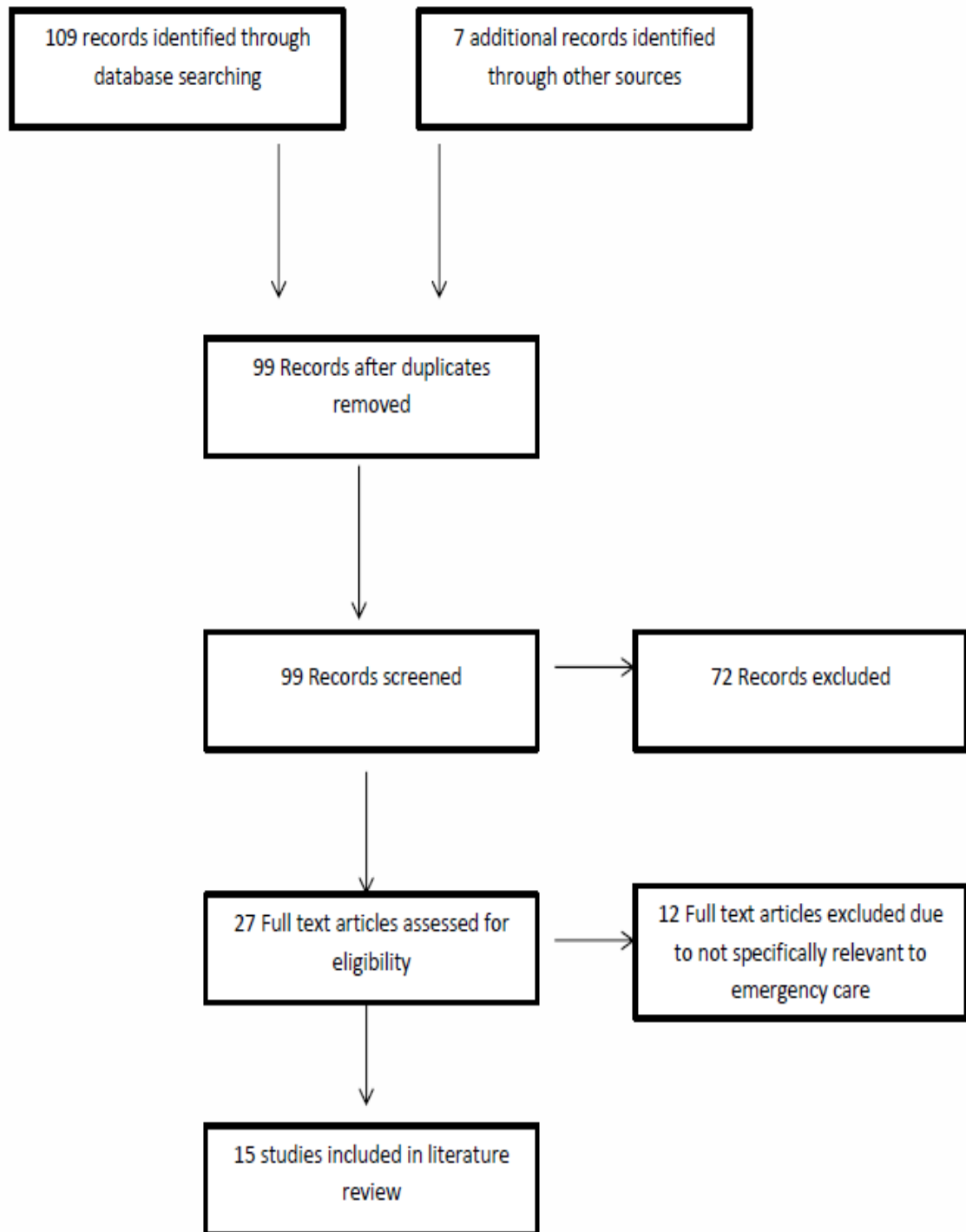


Table 9: Prisma Flow Diagram: Unplanned return rate



Table 10 Unplanned return rate

Author	HCP	Study Design	Outcomes
McClellan et al (2013) UK	ENP, ESP & Doctors	Randomised pragmatic trial of equivalence	<ul style="list-style-type: none"> <li>Patients treated by an ENP attended GP more frequently (26.4%; n=19), than those treated by an ESP (17.4%; n=12) or a doctor (13.2%; n=9) in the first 2 weeks following injury. The majority of these visits (40%) were to obtain work certification relating to the injury.</li> </ul>
O'Loughlin et al (2013) UK	Drs	Three site observational study. Retrospective case note review of children attending at least twice in seven days.	<ul style="list-style-type: none"> <li>Unplanned reattendance rates at the three centres were 5.1%, 5.2% and 4.4%. Two groups were identified for targeting reattendance reduction: parents of children returning with the same diagnosis and severity unchanged and patients who had bypassed primary care.</li> </ul>
Dinh et al (2012) Australia	ENP & Doctors	Observational study using a convenience sample.  The quality of care was measured using patient satisfaction; follow up health status and missed fractures or unplanned re-consultation within 14 days.	<ul style="list-style-type: none"> <li>Unplanned representations or missed fractures occurred in 8% (18/236) of patients. (5 (6%) of Doctor group and 12 (9%) of ENP group (p=0.22)).</li> <li>Two missed fractures, one in each group. Unplanned re-consultation of minor clinical significance, (small avulsion fractures of ankle, plaster problem, unscheduled wound review). None required additional intervention or referrals, and there were no patient complaints.</li> </ul>
Van der Linden et al (2010)  The Netherlands	ENP and Doctors	Retrospective, descriptive cohort study.	<ul style="list-style-type: none"> <li>Unplanned return visits; 76 (5.1%) made an unplanned return visit to the ED within 1 month; worried about injury (29 [38.2%]), plaster problem (19 [23.7%]). 6 complications from treatment, 4 wound infections, 5 missed injuries, 5 inappropriately managed episodes.</li> </ul>

Author	HCP	Study Design	Outcomes
Black (2010) UK	Doctors	Retrospective review of notes in all patients under 17 year old who reattended within 72 hours, over a 28 day period	<ul style="list-style-type: none"> <li>Unplanned reattendance rate of 91 (3.88%). 69 (76%) were under 5 years old. High risk groups for unplanned reattendance were children under 5 years old, those suffering from gastroenteritis and upper respiratory tract infection.</li> </ul>
Kuan and Mahadevan (2009) Singapore	Doctors	Retrospective review of notes.	<ul style="list-style-type: none"> <li>All patients returning within 72 hours of initial visit identified between January 2005 and June 2005. 842 cases of unscheduled returns (2% of all attendances). 25% of returns were patients with abdominal pain, and in 68.7% of this group there was a missed diagnosis.</li> </ul>
Whiticar et al (2008) UK	ENPs and Doctors	Retrospective audit of notes over one month.	<ul style="list-style-type: none"> <li>89/3872 patients returned (2.3 % re-attendance rate). 50% re-attended as a result of continued symptoms (medical condition 32%; minor soft tissue injury 30% at initial presentation). Return rates: middle grade doctor 2.3% (n=22); SHO 2.8% (n= 44); ENP 2% (n=12).</li> </ul>
Hastings et al (2007) USA	Doctors	Retrospective cohort study.	<ul style="list-style-type: none"> <li>Patients aged 65 years or older who returned within 90 days were followed up. 245 (26%) returned to the ED but were not admitted. 125 (13.3%) were admitted and 23 (2.4%) died. Lowest adverse event rate in patients with joint/soft tissue disorders and highest in those with heart failure, respiratory or electrolyte disorders. More than 1 in 3 patients aged 65 years or older discharged from the ED experienced a significant adverse outcome within 90 days of ED discharge.</li> </ul>
Wu et al (2007)	Doctors	Retrospective cohort study over 1 year	<ul style="list-style-type: none"> <li>Patients who revisited the ED within 72 hours were studied. Over a year 1899 patients (5.47%) revisited the ED. Revisits were</li> </ul>

Author	HCP	Study Design	Outcomes
Taiwan			associated with medical errors in prognosis, diagnosis, treatment, and follow up.
Nunez et al (2006) Spain	Doctors	Prospective case control study.	<ul style="list-style-type: none"> <li>250 cases and 250 controls. Main factor associated with unplanned return was error in prognosis, as well as older patients and a presenting complaint of dyspnoea.</li> </ul>
Goldman et al (2006) Toronto	Doctors	Retrospective review	<ul style="list-style-type: none"> <li>Paediatric ED over one year. 1990 patients (5.2%) returned within 72 hours. 25% of children who returned were under 1 year old. Found that younger children with high acuity who came to the ED in the late evening were most likely to return for an unplanned visit to the paediatric ED.</li> </ul>
Eze et al (2005) UK	SHOs	Retrospective audit over 2 months, intervention and reaudit over a further 2 months.	<ul style="list-style-type: none"> <li>Looked specifically at patients attending with epistaxis. Verbal and written advice increased from 19% to 61% and 2% to 54% respectively. The number of re-attenders was reduced from 11 (17%) in the first audit to 5 (8%) in the 2<sup>nd</sup> audit: a 9% reduction. All patients re-attending in the 2<sup>nd</sup> audit were given advice sheets.</li> </ul>
Cooper (2003) Scotland (PhD thesis)	ENPs	Randomised controlled trial.	<ul style="list-style-type: none"> <li>5.5% patients re-attended the ED within 6 weeks of initial attendance. 40% attended for unplanned follow up related to their initial injury. 12% of this group had missed injuries or were found to have been incorrectly managed at their initial presentation. Overall 0.4% of all minor injury patients were identified with a missed injury or having been inappropriately managed at their initial visit. 18% of the sample reported the need to seek unplanned follow up in the month following their initial visit.</li> </ul>

Author	HCP	Study Design	Outcomes
Sakr et al (1999) UK	ENP and Doctors	Randomised controlled trial.	<ul style="list-style-type: none"> <li>• There was a significant difference between the groups in the number of unplanned follow up visits: 37 (8.6%) of ENP patients had at least one unplanned follow up visit, compared with 64 (13.1%) in the junior doctor group (p=0.03).</li> </ul>
O'Dwyer and Bodiwala (1991) UK	Doctors	Retrospective audit over 1 month.	<ul style="list-style-type: none"> <li>• 235 patients surveyed who had an unscheduled return during a one month period (total unplanned return rate of 2.9%). Planned follow up rate of 13.4%.</li> <li>• 62% returned because of persistent symptoms. 63% presented within a week of their initial visit. 50% did not require treatment. 21% of patients had pathology which had been missed on their initial visit (missed fractures, nerve injury, foreign body in eye, perforated tympanum, hand infection).</li> </ul>

### 2.8.5 Unplanned follow up rate.

Fifteen papers were identified that examined the unplanned follow up rate for patients seen and treated by doctors and non-medical health care professionals in the ED. The papers spanned 24 years (from 1999 to 2013) and six countries (UK, Australia, Canada, Taiwan, USA and the Netherlands). Nine papers were included which focused on the unplanned follow up rate of patients seen only by medical staff in an ED for comparison (1991-2013; UK, Singapore, Toronto, USA, Taiwan and Spain). The 6 non-medical studies spanned 1999-2013 and three countries (UK, Australia and the Netherlands).

Interestingly only a small percentage of the evaluative literature has looked specifically at unplanned reconsultation rates in patients attending emergency care in the UK (Eze et al 2005; Whitarcar et al 2008) as well as the characteristics of patients who frequently attend the ED (Murphy et al 1999; Milbrett & Halm 2009). Salisbury et al (2007) found that there was no evidence of any difference in reconsultation rates at EDs with or without walk in centres in their evaluative study. This issue has predominantly been explored in international healthcare systems (Goldman et al 2006; Nunez et al 2006; Hastings et al 2007; Wu et al 2008; Kuan & Madadevan 2009; Van der Linden et al 2010; Dinh et al 2012) and the UK paediatric emergency care setting (Black 2010; O'Loughlin et al 2013) so the findings are of limited generalizability to the UK adult population.

Synthesis of the literature suggests that in the paediatric population, unplanned reattendances are most likely to occur in younger children (under 5 years old) who presented initially with a high triage category and presented between 8pm and midnight with no significant seasonal differences (Goldman et al 2006) or presented with an initial diagnosis of gastroenteritis and upper respiratory tract infection and were by a junior doctor on initial presentation (Black 2010). In the adult population, unplanned reattendance to the ED was associated with chronic disease (Wu et al

2008), an initial presenting complaint of abdominal pain (Murphy et al 1999: Milbrett et al 2009) and increasing age (Murphy et al 1999).

Until recently the literature seemed to suggest that unplanned consultation rates of patients seen by ENPs and senior house officers (junior doctors) were comparable (Salisbury et al 2007), or that ENPs had lower rates (Sakr et al 1999; Whiticar et al 2008). Sakr et al (1999) found that patients seen by ENPs had an unplanned follow up rate of 8.6% compared with 13.1% for patients seen by SHOs. Cooper et al (2002) found patients seen by ENPs had an unplanned reconsultation rate of 18.3% compared with 21.5% for those seen by SHOs, Whiticar et al (2008) reported that ENPs had the lowest return rates when compared with their medical colleagues (Middle grades 2.32% (n=22), SHO 2.83% (n= 44), ENPs 1.99% (n=12)).

More recently McClellan (2009:2013) discovered that a significantly higher rate of patients who had been seen by an ENP rather than a doctor or (ESP) sought unplanned General Practitioner (GP) review following their initial presentation to the emergency department.

McClellan et al (2013) evaluated the cost effectiveness of ENPs and (ESPs) managing patients presenting with soft tissue injuries compared with the routine care provided by doctors in an ED. 372 patients were randomized to treatment by an ENP, ESP or routine care by doctors (of all grades); 262 patients were consequently recruited to the study. The reduction in the number of patients recruited was attributable to 98 patients subsequently identified as having a fracture and therefore being excluded from the study. The remaining 12 patients decided to withdraw from the study, were found not to meet the inclusion criteria or were excluded because a randomisation error was discovered. Patients were followed up at 2 and 8 weeks post injury. The results demonstrated that ESPs and ENPs were equivalent in cost to routine care by doctors. McClellan et al (2013) found that patients treated by an ENP attended their GP more frequently (26.4%; n= 19) than those treated by the ESP (17.4%; n=12) or a doctor (13.2%; n= 9). This may indicate previously unreported issues related to the quality of care delivered (such as accuracy of diagnosis and management), as well as the confidence of the patient in the healthcare professional treating them. Further

unplanned healthcare visits may be undertaken in order to seek reassurance or gain a 'second opinion'. An alternative hypothesis is that issues were not addressed in this patient group. For example it may be that fitness to work certificates were not routinely given, or inadequate analgesia was prescribed, or the patients' expectations in terms of their recovery time were not adequately discussed. Further work is required in this area to identify why the ENP patients seem to have required more unplanned follow up in primary care.

## **2.9 Summary**

In this chapter the relevant literature has been reviewed in the context of the development of non-medical roles in the ED. This has covered the historical development of roles such as the ENP, and has also explored the influencing factors which led to the need to develop additional roles to those of the traditionally medically delivered ED services. The perceptions of healthcare professionals as well as patients towards these roles have also been investigated alongside a discussion about the lack of national standardisation of titles, educational preparation and scope of practice. The evidence to date suggests that in the main these evolving roles have been largely accepted in emergency care and have been evaluated positively in their contribution to safe and acceptable emergency care as well as patient satisfaction. However there remain some anxieties and concerns from medical and nursing staff about the ENP role, and there is evidence that a small but important percentage of the patient population would still prefer to be treated by a doctor.

### **3. Methodology**

#### **3.1 Introduction**

This thesis set out to explore patients' perceptions of their visit to the "minor end" of the emergency department. In order to meet the growing demand for emergency care, new roles have been developed over the last decade. These new roles, such as the emergency nurse practitioner, have been subject to rigorous evaluation and have been found to be safe and acceptable to patients (Coopers & Lybrand Health Practice 1996; Dolan et al 1997; Dunn 1997; Maclaine 1998; Sakr et al 1999; Barr et al 2000; Byrne et al 2000 a, b; Clarke 2000; Walsh 2001; Sakr et al 2003; Steiner et al 2009; Hoyt & Proehl 2010; Fotheringham et al 2011; Colligan et al 2011; Dinh et al 2012 ).

A central aim of this thesis was to explore why patients seek unplanned follow-up after a visit to the emergency department. While it is acknowledged that a proportion of patients will seek follow up because their symptoms may unexpectedly worsen (as discussed in chapter one), there is a concern that increasing numbers of patients seeking unplanned follow up will increase the burden placed on health care services such as emergency departments and GP surgeries.

By identifying the reasons why patients seek unplanned follow up, there is an opportunity to address these issues through modification of the initial consultation in the emergency department, thereby decreasing the inconvenience for patients in having to seek further unplanned follow up, contributing to increased patient satisfaction and decreasing the burden placed on health care services.

The purpose of this chapter is to outline the methodological approach which underpinned the study, and to justify why this study design was adopted. The discussion will include justification for the methods utilised in data collection and analysis.



### **3.2 Aims**

The thesis questions were strongly influenced by previous work in this field (McClellan 2013) and the aim was to build upon and investigate further the implications of higher rates of unplanned follow up for patients seen by non-medical professionals in the ED.

The aims of the study were to:

- Explore the reasons why patients, who have been treated in an inner city emergency department, seek unplanned follow up with another healthcare professional.
- Explore whether the patient knew which professional group they were treated by in the emergency department.
- Identify whether the patient's perception of, and confidence in, the healthcare professional had an impact on their subsequent decision to seek follow up.

### **3.3 Overview**

A variety of methodological approaches were available to approach these research questions. Both quantitative and qualitative approaches were considered in the research design phase. Randomised controlled trials hold a superior status over other research methods as the 'gold standard' of evidence on which to base decisions about healthcare (Knipschild 1993; Black 1996; May 1997). The scientific strength of this approach is in the strict application of standardised procedures or interventions in order to reduce systemic bias and eliminate erroneous conclusions (Hicks 1998; Burns & Grove 1999). Walker (2005) suggests that control of the study criteria may be exerted in several ways, including: random sampling, inclusion/exclusion criteria, use of a comparison group, subject matching across groups, manipulation of the independent variable, single, double or treble blinding procedures, the use of precise measuring tools and the application of standardised statistical tests in the final analysis of data. The outcome of this control is the researcher's ability to state with confidence that the outcome produced can only be attributed to the effects of the experiment (Duffy, 1985). Historically quantitative methods have been used in emergency care research in order to answer specific questions, more recently there has been a shift

seen in the published literature suggesting that a move away from such a stringent positivist approach is occurring.

Cooper & Endacott (2007) reviewed 476 papers published in the *Emergency Medicine Journal* from 2001 to 2006 and found that 462 papers described using a quantitative methodological approach, six described a mixed methods study design and eight were qualitative studies, they noted that 12 of the 14 studies utilising a qualitative approach had been published since 2004 suggesting a recent move to the acceptance of this approach in published studies in emergency medicine. The use of a qualitative approach (descriptive, correlational or experimental) appears to be moving towards a stance where an interpretative technique is employed as well, in order to explore and generate meaning of the findings within the clinical context (Schneider et al 2000). Nursing research has historically tended to utilise qualitative methodological approaches and this Lawler (1998) believes is because nurse researchers are often seeking insight into the experience of uncertainty; they may be seeking an understanding of the lived experience of illness and the diverse ways in which patients cope with this phenomenon. This profession specific difference may be explained in some small part by the philosophical differences which underpin the medical and nursing professions. Lawler (1998) goes on to suggest that nursing, a discipline that is seeking to explain human experience, should turn to human science to conduct its research. It has been argued that within nursing the complex array of influences on the knowledge, skills and values of the clinical nurse precludes the adoption of one single 'scientific' approach (Walker 2005).

A qualitative approach has been described by Cooper et al (2009:773) as a 'useful addition to the emergency care researcher tool set'. Defining the philosophical underpinnings of qualitative research approaches is complex, but a core element of such an approach is that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (Denzin & Lincoln 1994). A key strength of a qualitative design approach such as an interpretive approach; ethnography, grounded theory, phenomenology, which aim to describe and understand a phenomena or a critical

approach; action or feminist research which focus on emancipation or change, is a move away from the positivist singular and objective view of the world to one which explores and generates meaning within the practice context, adding to emergency care clinicians understanding and knowledge of experiences which in turn can influence how services or treatment strategies are developed in order to attain maximum effectiveness. In emergency care such an approach has been successfully utilised in the work of Fry & Stainton (2005) who examined the unwritten rules surrounding triage and identified and defined the elements of the process and role such as gate keeping using an ethnographic approach. Similarly Cairo (1996) used grounded theory in order to explore emergency physicians attitudes towards the role of ENPs and uncovered concerns the physicians had around ENP practice.

In this study the focus on exploring the reasons why patients sought unplanned follow up meant that not only quantifying the issue was important, but also exploring and understanding the reasons behind why a patient chose to seek additional unplanned follow up with another healthcare provider or just as importantly exploring why they did not feel the need to seek follow up was essential. This suggested that simply employing one research approach would not be adequate in order to answer the questions posed. An important concept to acknowledge when undertaking research and defining the philosophical influences on a researcher is that there is no 'one truth'. Social constructionism encourages researchers to take a critical stance towards the taken for granted ways of understanding the world (Burr 2003). The concept and theory of social constructionism makes researchers challenge the view that conventional knowledge is based upon an objective, unbiased observation of the world and its meaning. Researchers are in fact encouraged to be continuously suspicious and questioning of assumptions about how the world appears to be and how and where knowledge has originated from. A key underlying principle of this theory that is important to realise is that all knowledge and ways of understanding are historically and culturally relative, as Burr (2003) highlights understanding is specific to and a product of a specific socioeconomic time in history. It could be argued therefore that there can be no absolute valid and reliable understanding of 'facts' because the knowledge of today's society is based upon interpretations of the evidence which has

been left from a previous society which none of us experienced. Foucault's (1981) view is that an interpretive approach to history is a narcissistic individual view of the relationship between the past and present. He argues that the interpretative social scientist only sets out to tailor history to their own purposes and identity. Burr (2003) points out that current knowledge and accepted ways at this point in time should not be assumed to be any better or nearer the truth than other ways, despite us accepting that they are a product of the current accepted ways of accepting and understanding the world. It is important to acknowledge that constructions or interpretations of the world are bound up in and influenced by power relations and this is especially true in interpreting and constructing understanding in medical knowledge. Giddens (1990) distinguishes power from domination in that power relations refer to the 'reproduced relations of autonomy and dependence in interaction' while domination consists of the 'structured asymmetries' of the distribution of allocated and authoritative resources available in such interactions. He suggests that a social group's (such as medicine and nursing) domination over allocated and authoritative resources plays an important part in determining social stratification, and thus it could be argued access to medical care.

Cooper et al (2010) suggest that mixed methods approaches are commonly adopted by researchers with a pragmatic world view because their philosophical stance means that they are likely to employ diverse approaches to problems solving and research design that work, while acknowledging and valuing both objective and subjective data and knowledge. Additionally Brown et al (2008:159) suggests that 'truth' in the context of a mixed methods pragmatic approach is defined as 'a position whereby strength of belief accumulates in line with salient evidence'

### **3.4 Background to research methodology**

#### **3.4.1 Mixed Methods Approach**

Mixed methods research is an increasingly accepted methodological approach within health services research because of the complexity of health care and the need for a range of methodologies to understand and evaluate these complexities (Pope & Mays

1995; McDowell & MacLean 1998; Bradley et al 1999; Creswell 2003; O’Cathain et al 2007; O’Cathain et al 2008). Healthcare researchers are focusing increasingly on the provision of health care such as access to care and the efficacy and cost-effectiveness of both new and established interventions (O’Cathain 2009).

It has been argued that simply employing one methodological approach within a study may fail to address the diversity of problems facing health services such as disparities among populations, age groups, ethnicities, poor adherence to treatment, behavioural factors contributing to disability and health as well as the translational needs for health research (Creswell et al 2011). Fulop et al (2001) suggest that there is a growing recognition of the need to understand the impact of the delivery and organisation of health services with a focus on processes as well as outcomes, and that a range of methodological approaches is required to achieve this.

Over the last 20 years there appears to have been a gradual acceptance of a mixed methods approach in designing research protocols that investigate the patient and family perspective as well as cultural and social models of illness and health (Creswell et al 2011). It is argued that mixed methods research can be viewed as an approach which draws upon the strengths and perspectives of each method utilised while recognising the real world issues and challenges of undertaking research such as the perceived limitation of the effect of human experience (Ostlund et al 2011).

Mixed methods research is becoming an accepted and standard term for research based on both qualitative and quantitative methods, but there are still a variety of descriptions of this approach used within the research literature; for example multi-methods, multiple method, multi-strategy and mixed methodology research (Johnstone 2004; Bryman 2006; Moran Ellis et al 2006; O’Cathain et al 2007a). O’Cathain et al (2007b) offer some convincing arguments in justifying a mixed-methods approach; they suggest that a combination of methods can allow a phenomenon to be described broadly and comprehensively, and that one method is enhanced or facilitated by another, for example discovering the ‘what’ as a result of a quantitative approach and then using a qualitative approach to find out ‘why’. They also argue that a mixed method approach can salvage another method. An example of this is the study

by Donovan et al (2002) which demonstrated an improved recruitment rate to a randomised controlled trial when a qualitative element was introduced.

### 3.4.2 Paradigm

Debate surrounds the ontological approach which underpins a mixed methods approach to research. This centres on the question of whether ontological approaches can be mixed. Creswell (2011) suggests that some writers adhere strongly to the idea that paradigms have rigid boundaries, and therefore simply cannot be mixed. It has been suggested that it is impossible to design successful research which utilises methods that are contradictory in their underpinning philosophical stances (Holmes 2006; Creswell 2011). This stance has been called purist by Rossman & Wilson (1985), described as the 'incompatibility thesis' by Howe (2004) and defined as 'mixing viewpoints' by Johnson et al (2007), while Kuhn (1970) described the 'incommensurability' of the two paradigms. The concept of incompatibility of approaches has been underpinned by the supposedly fundamentally opposing ontological and epistemological viewpoint regarding the 'nature' and 'knowing' of realities. Traditionally quantitative research has been linked with a 'positivist' view and qualitative with an 'interpretivist' one. The impact on the knowledge generated by these 'conflicting' research views are exemplified by Murphy & Dingwall (1998) (qualitative researchers) who suggest that reality is a construction shaped in people's minds with no independent existence. As a result it can only be investigated and interpreted as multiple and possibly contradictory realities. While a quantitative approach tends to view the existence of an independent reality as unproblematic, it is also acknowledged that the research question or hypothesis will only be able to approach the issue imperfectly and partially (Glogowska 2011).

There is a move within the literature to suggest that this paradigm dispute might be coming to an end (Patton 1998; Barbour 1999; Bryman 2006; Morgan 2007). A mix or blend of ontological and epistemological approaches has been seen in the growing body of published health services evaluation research (Glogowska 2011). Patton (2002) argues that the methodological purist approach to research development has been overtaken by a more pragmatic view whereby methodology is chosen for its aptness or

best fit for answering a research question rather than because of any pre-existing philosophical loyalty. Ritchie & Lewis (2003) describe this as a 'toolkit' approach, in which a blend of methodologies is acceptable in order to answer research questions. Creswell (2011) attributes Guba & Lincoln (2005) with beginning to break down these philosophical boundaries by suggesting that elements of a paradigm might in fact be blended together in a study. Some authors now suggest that while it is acceptable to use multiple paradigms in a study in different phases it is also important to observe and acknowledge the underlying philosophical approaches, diverse and opposing as they may be (Creswell 2011) in order to preserve the essence of the approaches.

### 3.4.3 Pragmatism

The philosophical underpinnings of this thesis were aligned with those of pragmatism, which Johnson & Onwuegbuzie (2004:16) suggest is a 'philosophical partner for mixed methods research'. Pragmatism they argue emphasises the importance of the context of the research question, as well as recognising how real world phenomena impact on and are incorporated into primary research approaches. This approach encompasses my research beliefs of a paradigm as described by Kuhn (1970); that of a shared belief system that influences the kinds of knowledge researchers seek and how they interpret the evidence they collect.

A pragmatic methodology was selected, utilising a mixed methods approach to data collection in three stages. An initial, quantitative, phase (questionnaires) informed the later qualitative methods of the study (telephone interviews and focus groups) in order to better understand whether one professional group was associated with an increased frequency of unplanned follow up (mainly quantitative aspect of the study; phase 1 and 2) and also to try and understand the reasons behind this (qualitative aspect of the study phase 2 and 3).

### **3.5 The research methods**

#### **3.5.1 Questionnaires**

This study draws on the experience of previous studies undertaken in the same setting. Binks et al (2005) demonstrated that while researcher-administered questionnaires may be resource intensive, this approach is able to access harder to reach groups such as those who have literacy problems.

During a literature review of patient perceptions of healthcare professionals, an appropriate questionnaire was not found, and [survey.net.ac.uk/sqb](http://survey.net.ac.uk/sqb) (a survey question bank of the main large scale UK social surveys) was also searched without result. While this work did not produce any usable questions or appropriately validated questionnaires it also gave me confidence that I was not overlooking the opportunity to use previously validated work in this area. In order to develop the surveys the issue to be explored was clearly identified from the aims of the study. The literature was reviewed surrounding patient satisfaction with emergency care as well as the literature which underpinned the factors which influenced satisfaction and confidence in healthcare professionals in the specialty. The implications of social desirability bias in respondents' answers were highlighted as a potentially important issue and as a consequence the wording of the stem questions was carefully constructed and piloted. The doctoral supervisory group were used as an expert panel in the development of the questionnaires and a consensus was reached not to use rating scales in the response formats in order to reduce the issue of social desirability bias and to encourage the respondents to respond with their true feelings and experiences. The questionnaires were also designed with the following principles agreed:

- The questionnaires needed to be as concise as possible while still collecting the required data in order to meet the aims of the study, in order to engage respondents would be keen to leave the emergency department following treatment.
- The acknowledgement that a significant percentage of the sample population to be approach may have issues with literacy
- That the questionnaires would be administered by the researcher



- The supervisory group were utilised to critique the questionnaires before pilot testing on order to increase some face validity before piloting was undertaken.
- The questionnaire was designed based on best practice from the literature systematically outlined in appendix 9.

Boynton et al (2004) highlight that until quite recently most published questionnaire research had been carried out on university students, or in business or healthcare settings in Europe and North America. This, it could be argued, suggests that bias has been introduced and that as a consequence little is known about large sections of the population who may be seen as more difficult to access. Using a researcher administered and completed questionnaire has proved successful previously in emergency care, but also requires that specific issues need to be identified and addressed. It is important that the researcher who administers the questionnaire is self-aware and reflexive in order to reduce the potential for bias (Boynton 2005). Researchers can subtly influence responses by inflections of the voice, facial expressions or gestures, or convey a lack of enthusiasm when tired (Houtkoop-Streenstra 2000). Robson (1995) suggests that another advantage of a researcher-administered survey is that they can clarify questions; as Boynton et al (2004) point out when abstract concepts are used, participants may interpret them literally. Additionally it has been found that the presence of a researcher encourages participation and involvement with the completion of surveys or questionnaires (Robson 1995).

The issue of question interpretation highlights the importance of patient involvement in the development of research and data collection tools. INVOLVE ([www.invo.org.uk](http://www.invo.org.uk)) is a national advisory group funded by the National Institute for Health Research, whose role is to support and promote active public involvement in NHS , public health and social care research in order to make research in these areas more relevant, reliable and more likely to be used (DH 2008a). Patient and public involvement in emergency care research is challenging because of the transient nature of the population. However with the publication of DH (2008a) guidance and the encouragement of patient and carers to become members who can chose to be actively involved in aspects of the management of NHS foundation trusts, as well as

increased awareness amongst researchers, there are increasing opportunities to involve the public in the design and completion of research. The questionnaires used in this study were devised in conjunction with the public and patient members of the local NHS foundation trust who had expressed an interest in contributing to research and in the work of the emergency department. Twenty two responses were reviewed and changes incorporated into the development and piloting of the questionnaires.

### 3.5.2 Telephone interviews

Telephone interviews were used in phase 2 of the study where participants were followed up two weeks after their initial visit to the Emergency Department, to ascertain whether the participant had needed to seek help or advice about their original presentation elsewhere.

The advantages and disadvantages of telephone interview have been well rehearsed in literature published in the 1990s and early part of the last decade (Sibbald et al 1994; Barriball et al 1996; Carr & Worth 2001; Kirsch & Brandt 2002; Cook et al 2003; Smith 2005; Gould & Fontenia 2006; Hocking et al 2006; Boland et al 2006). Studies in the 1990s were responsible for establishing telephone interviewing as a valid and reliable data collection tool in mainstream research, and subsequent studies began to recognise, accept and evaluate this method of data collection. Novick (2008) suggests that there is a bias against using telephone interviews in qualitative research, and yet despite extensive searching there is little evidence to suggest that data loss or distortion takes place when this approach is used in qualitative research.

More recently, studies from Dormandy et al (2008) and Harris et al (2008) have contributed new knowledge. Harris et al (2008) identify that researchers who utilise telephone interviews need a high level of assertiveness, tact and empathy and skills in listening and reflection in order to overcome the feelings experienced by the telephone researchers in Dormandy et al's (2008) study of feeling chastened for intruding upon people's time as well as finding 'cold calling' participants a stressful and intimidating part of the study. In order to overcome these feelings, and to establish a dialogue in a short time, the researchers found it necessary to rely on tone

of voice and the ability to articulate and to be succinct in order to hold the participant's interest and to ensure all the questions were answered. This practical information led me to include a question for participants, when they consented to a short telephone interview, asking the best time to contact them during the day or early evening to reduce the potential drop-out rate in this part of the study. Harris et al (2008) also suggest that a script or the use of key words can help in keeping the interviewer focused and the participant engaged in the process.

The literature highlights that in designing a telephone interview the introductory statements made by the interviewer are crucial in ensuring a good response rate, with refusal to participate being most likely in the initial phase (Barriball et al 1996). Response rates in telephone interview studies compared with in person interviews have been found to be best where face to face recruitment takes place (Worth & Tierney 1993; Marcus & Crane 1996); therefore this approach was incorporated into the design of this thesis.

### 3.5.3 Focus Groups

Focus groups were planned as the primary data collection tool in the third phase of the study in order to explore, in more depth, the reasons why the members of one group had chosen to seek unplanned follow up following their visit to the emergency department and why members in another focus group had not sought unplanned follow up.

Focus group discussions are frequently used to obtain knowledge, perspectives and attitudes of people about issues, and seek explanations for behaviours in a way that would be less easily accessible in responses to direct questions (Kitzinger 1995; Kruger 1998). An additional depth in this data collection method is that there is a tendency for attitudes and perceptions to develop through interaction with others in the groups (Kruger 1988). It has been argued that the output from focus groups show dimensions of understanding that often remain untapped or inaccessible by other forms of data collection (Kitzinger 1995). Freeman (2006) states that focus groups are a form of group interview that places particular importance on the interaction between

participants. Many authors see the interaction as key to the method (Kitzinger 1994; Duggleby 2005; Morgan 2010), which can help people to explore and clarify their views and attitudes, and encourages participation from those who feel that they have little to say. The interpersonal communication between participants helps to clarify similarities and differences in expressed opinions and values (Kitzinger 1995).

In the context of healthcare research, focus groups are particularly apt because most health related conditions are created by social environments and made within the social context (Carter & Henderson 2005). Thus, focus groups are a popular method for assessing public experience and understanding (Ritchie et al 1994). They have also been used successfully in gaining insights into people's experiences of ill health and health services (Murray et al 1994).

Focus groups are generally defined as group interviews conducted by a facilitator, with or without the assistance of an observer or recorder, including between 6-10 people who discuss a specific topic from the perspective of their individual experience or opinion. Typically, a group interview runs anywhere from half an hour to two hours (Beaudin & Pelletier 1996).

Focus groups have been successfully utilised for a variety of research purposes:

- As basic research, to contribute to fundamental theory and knowledge
- As applied research, to illuminate a societal concern
- As summative research, to determine programme effectiveness
- As formative evaluation, for programme improvement
- As a method to facilitate or evaluate provider/consumer relations or services
- As a method to deconstruct a routine cycle of care or service to generate new insights.

(Patton 1990; Beaudin & Pelletier 1996)

Additionally, the use of focus groups in soliciting the views of the public when the subjective viewpoint is of interest can be valuable, as is the case in this study. Proponents of this data collection method suggest that it is an excellent method for obtaining rich information within the social context (Wilkinson 1998). This

methodology can be used to inform other research approaches, providing a broader perspective for the investigator. Public opinion has the potential to enhance the quality of health care research by providing fresh perspectives on process, context and experience (Beaudin & Pelletier 1996).

While focus groups were used originally as a marketing strategy to test responses to a product and its desirability as a commodity (Buchanan 1992) in health service research they have found benefits in examining the public understanding of illness and of various health behaviours. They have also been used successfully to explore how patients have experienced various health care services or a specific illness or disease process.

A particular strength of this approach is that participants can choose the vocabulary of their discussion and issues important to them within the framework of the research question. It is the dynamic of the group process, stimulating the thinking of, and provoking conversation among, participants in response to specific questions posed by the researcher. This provides researchers with details and perspectives they could not obtain using other methodologies (Freeman 2006)

It is important to be mindful as a researcher that focus group discussions are not about consensus. Rather the focus group encourages talk between participants, asking each other about experiences, reacting to statements and discussing potentially differing points of view, thereby providing an opportunity for participants to explore and to clarify values which could not happen in a one-to-one interview.

#### 3.5.4 Advantages of focus groups

Focus groups are seen as an excellent method for collecting qualitative data where participants are able to build upon one another's comments, stimulate thinking and discussion, and generate ideas and breadth of discussion. It has been argued that data quality can be greater as the facilitator can respond to questions, probe for clarification and solicit more detailed responses (Morgan 1998). It has also been argued that focus groups may aid in the conceptualisation and the generation of hypotheses, particularly if the researcher is exploring a new area. Morgan (1988) feels

strongly that focus groups are useful when it comes to investigating what participants think, but they excel at uncovering why participants think as they do.

Focus groups can provide data that cannot be accessed with traditional quantitative or epidemiological approaches such as information needs, beliefs, attitudes and values of various individuals or population sub-groups, and insights into new or complex public issues. The data enable the researcher to gain a 'real life' rather than an experimental or controlled view of the participants' experiences. Information can be used to identify potential areas of enquiry, to explore issues that are not amenable to qualification, to augment understanding of one or more dimensions of a study, as first steps in exploration/description of a particular problem, and potentially as a basis for hypothesis development. It is thought to be a particularly useful approach when survey results are ambiguous or suspect and require clarification or more in depth explanation, and was therefore chosen for use in this thesis.

#### 3.5.5 Limitations of focus groups

Historically, quantitative researchers have been unsympathetic to the use of the opinions of the lay public to inform providers of healthcare, and have questioned the validity of such findings (Patton 1990). Specifically they have questioned the patient's ability to objectively evaluate the care they received because of the perceived lack of knowledge of the technical aspects of care, and questioned how much influence or weight should be placed on the views of the small number of people which typically constitute a focus group (Gibbs 1997). A fundamental disadvantage of focus groups is the susceptibility to bias, because group and individual opinions can be swayed by dominant participants or by the moderator (Kitzinger 1994; Kitzinger 1995). Moreover groups can be difficult to assemble and participation rates can be a problem, as proved to be the case in this thesis. Morgan (1998) advises over-recruiting to the group by 20% as some participants may change their mind about taking part, or fail to attend on the day.

More importantly there is an ethical responsibility placed on the researcher when exposing vulnerable individuals to others or even in bringing together individuals from

different levels in an organisation or within society, and potentially making them feel exposed and vulnerable in a group of strangers as a result of their participation (Barbour 2005). A particular ethical issue to consider is the potential disclosure of sensitive material and confidentiality given that there will always be more than one participant in the group. It is essential before the focus group commences that the facilitator clarifies expectations of what should and should not be discussed in the group as well as the requirement for participants to keep information shared within the focus group confidential. The concept of not sharing potentially confidential information is ingrained in healthcare professionals but may not be so for the participants in the group depending on their life experience and occupation, and they may not understand the potential consequences of sharing sensitive information within the group or of passing this on outside the group. Power has also been identified as an ethical issue and key component in the relationship between the researcher and participants. The power ascribed to the researcher lies in the position of authority they assume in setting the agenda and in controlling the data, as well as their role in seeking knowledge and methodological expertise (Nunokoosing 2005). Mason (2002) argues that power relations can be more complex and multidirectional than this explanation; one or more of the participants may be perceived to be more powerful in society than the interviewer and may be in a position to redirect or control the agenda and information imparted. Nunokoosing (2005) sees the participant in a position of power because they hold the information which the interviewer is seeking. Glesne & Peshkin (1992) suggest that a non-hierarchical relationship is not possible in this situation even when the researcher is acting as a facilitator and they argue that the most that can be attained is a relationship of reciprocity in the knowledge-power game of the interview or focus group.

Respondent validation is often seen as a prerequisite when reporting on qualitative research (Barbour 2001). However this is not as straightforward as it seems. There can be ethical as well as practical problems, and careful consideration should be given before providing written transcripts of group discussions. Reconvening groups is often impractical and even if this was possible the group dynamics would not be the same (Kidd and Parshall 2000). James & Bloomer (2003) are strong proponents of actively

choosing not to gain respondent validation as they argue it simply serves to invalidate the findings of the researcher, particularly if the respondent does not like or agree with the way in which their views were portrayed, and asks for changes to be made to the interview script. Interestingly, Monk et al (2013) found that while the nurses in their study did not choose to amend their accounts of the transcribed interviews they took part in, several participants did comment how their comments seemed more stark when they saw them written down suggesting that participants do perceive differences between the oral and transcribed accounts of their views.

### 3.5.6 The ideal size of a focus group

There is a great deal of variation in the literature regarding the optimal size of a focus group (Tang & David 1995). In healthcare the suggested ideal group size ranges between 4 and 12 people (Bender & Ewbank 1994). Some authors (Kerrison et al 2008) argue that if there are too few participants it may be difficult to invoke a group interaction, although conversely others (Krueger & Casey 2008) feel that the size of a group should be based on the research topic or purpose because if sensitive or highly intense issues are to be discussed and explored, forming a group with fewer numbers may prove more useful to encourage group cohesion. Highly charged debate or expression of feelings can be harder to moderate when the group is larger.

Interestingly there does not appear to be any definitive evidence as to how many focus groups are enough in order to be confident that the researcher has good quality or indeed adequate data. It would seem to depend on the subject/phenomenon of interest, its complexity and the purpose of the study. The literature in this area does seem to be contradictory; suggesting anything between one and ten groups is usually adequate in order to explore most subjects and reach data saturation. Carlsen & Glenton (2011) carried out a review of the sample size reporting in focus group studies and found insufficient reporting of sample sizes was common. The number of focus groups in papers varied greatly from 1-96 groups. They also reported finding positive bias reporting and little evidence of researchers mentioning practical limitations when carrying out focus groups. Interestingly Carlsen & Glenton (2011) reported that in their experience recruitment problems were much more common than the review indicated



and they surmised that there was inadequate reporting of the practical issues associated with this method of data collection in practice.

#### 3.5.7. Patient and public involvement in study design

Members of the patient and public membership group of University Hospitals Bristol NHS Foundation Trust who had previously expressed an interest in being involved in emergency care development were approached via a public and patient involvement worker to comment on the questionnaire designed to be completed by patients after their visit to the emergency department. The feedback was collated and used to inform the final design and content of the questionnaire to be used in this study. They were also asked at what point in their visit before they are seen by a doctor or emergency nurse practitioner would they would prefer to be approached to be asked about participation.

### **3.6 Thesis Methodology**

The recruitment of patients took place over a period of 20 months from September 2011 to April 2012, both 'in hours' Monday to Friday 9-5pm and out of hours, 5pm to midnight and at weekends. The ENP and ESP service did not run over 24 hours during the time this study was undertaken. The ED is situated in the centre of Bristol, and sees patients aged 16years and older (children are seen in the Paediatric ED adjacent to the adult ED which is situated in a children's hospital). The adult ED manages approximately 66,000 patient attendances each year.

Phase one of the study involved recruiting patients during their ED visit, and then administering a short questionnaire as they left the ED. The questionnaire can be found in Appendix One. Patients consented to take part in this phase as well as the second phase of the study at this point. The consent forms and second phase questionnaire can be found in Appendices Two and Three.

Phase one: Patients were approached while they are waiting to be seen by a healthcare professional in the waiting room of the emergency department. A short explanation of the study was given and patients were given the opportunity to consent to take part then or when the exit questionnaire was administered. Patients who

consented to take part in the study were administered a short exit questionnaire on discharge, identifying demographic details, how long they had been in the department, how long they had spent with the practitioner and asking them to identify the professional group of the practitioner they had been seen by. At this stage the patient also consented to take part in phase 2 of the study and the researcher ascertained a convenient time of day and contact number to follow them up.

Phase two; two weeks later the patient was contacted by telephone. They were asked if they had seen any other healthcare practitioner regarding the original complaint. The reasons for follow up were explored in order to generate themes for exploration in the next phase of the study. They were also asked again which healthcare professional they saw at their initial consultation, to ascertain whether their perception had changed in light of their post visit experiences. It was agreed within the researcher's supervision team, that three attempts at contacting a patient who had originally consented to take part in this part of the study would be appropriate. A consistent theme throughout the literature suggests that response rates in telephone interview studies are best when face to face recruitment takes place, which was the strategy utilised in this study (Worth & Tierney 1993; Marcus & Crane 1996).

Different attempts to increase follow up were employed throughout study. I discovered that it was important to be responsive and flexible in order to increase follow up rates. In the second phase of the study participants were called on up to 3 occasions, at a time which they indicated on initial interview was convenient to them. The participant was always asked if it was a convenient time to talk and was also given an indication as to how long the interview would take when they answered the call. If they indicated that it was not convenient, a new time was negotiated. The follow up rate seemed to have been increased when a mobile telephone was used to call participants rather than a landline from the hospital (which does not allow the participant to see the number from which they are being called). While a participant may not have immediately answered the call, there were occasions when they called back using the mobile number to find out who had called them and why, and all were then happy to carry on with the short phase two questionnaire, perhaps because they had initiated the call and therefore felt a greater deal of control and/or responsibility.

Additionally some participants texted to ask who was calling them and in these situations I texted back introducing myself as the researcher they had met two weeks previously. On four occasions this resulted in a new time to contact the participant being arranged.

Phase three: The final phase of the study consisted of focus groups with patients to explore the issues or themes identified in the previous two phases. This phase included an exploration of the public perceptions of doctors and nurses in emergency care in order to understand their experiences, behaviours and perspectives (exploring what they think as well as how they think and why they think the way they do: Morgan 1997). Focus groups are often used in the preliminary stage of a larger study in order to test the construction of a survey or to generate data which is then explored further using a method such as questionnaires (Neale 2009). However in this study focus groups were used in order to gain greater insight and understanding into the results of the questionnaire and telephone surveys in phase one and two, which is an accepted alternative utilisation of this method (Morgan 1997). By encouraging the participants to compare and contrast their views and experience, insight is gained into the consensus and diversity of perspectives (Morgan 1997).

### 3.6.1 Inclusion & exclusion criteria

#### Inclusion criteria

All adult patients (16 years or older) attending the “minor end” of the Emergency Department during the study recruitment periods with the exception of patients where an interview was felt to be inappropriate, insensitive or fitted the exclusion criteria.

#### Exclusion criteria

The exclusion criteria were kept as few as possible in order to try and gain a broad range of participants.

- Potentially life threatening illness or injury (triage category 1)
- Non English Speaking (no financial resources were available for employing a translator in phase two or three of the study)

- Patients with chronic mental impairment (such as dementia)
- Patients < 16 years old
- Patients who were severely emotionally upset
- Patients who were prisoners at the time of attendance to the Emergency Department.
- Patients declining to participate

### 3.6.2 Sample framework and size

A non-probability sampling approach was taken. The sample framework included all patients who attended the emergency department, and who did not meet the exclusion criteria. Random purposive sampling was undertaken in order to recruit patients in order to reduce potential bias introduced by the researcher. As a consequence the emergency department on line register of patients was deliberately not used in order to identify patients for inclusion in the study. This decision was taken in order to reduce bias by the researcher consciously or unconsciously identifying patients with a specific characteristic (eg: age, gender, presenting presentation).

The sample size was calculated on the basis of phase one, in relation to the ability of patients to determine which practitioner (ENP or doctor) they had seen, and also whether this was influenced by the gender of the practitioner. When the sample size is 97 (i.e. 97 ENPs and 97 doctors), a two-sided 95% confidence interval for a single proportion using the large sample normal approximation will extend 10% from the observed proportion for an expected proportion of 50% (which is the accuracy expected by chance alone). This is a “worst case scenario”: if the patients are able to identify the practitioner with an accuracy that is greater or less than 50% the sample size becomes slightly smaller. Thus, if there were 100 patients seen by an ENP and 100 patients seen by a doctor the proportion correctly identified could be calculated with 95% confidence intervals of approximately +/- 10%.

If 200 patients were recruited to phase one, then at follow up during phase two approximately 16% would be expected to have sought further healthcare (this is based on the previous work of McClellan et al, which showed a mean re-consultation rate of

16% for ENPs and 13% for doctors). This will give 32 patients who have re-consulted. If only 25% of these agree to join the re-consultation focus group then eight will be recruited to phase three, which is an appropriate number for a focus group of this type (normal composition six to eight persons). The focus group for those who have not re-consulted can then be consented from the remaining 168 patients who have not sought further healthcare following their ED visit.

### 3.6.3 Data management

All personal information was treated as confidential. Data were stored in a central location and processes put into place to ensure data protection between sites (NHS & University). Data were collected and retained in accordance with the Data Protection Act 1988. A formal data management system was developed: data were stored and locked in a centrally based filing cabinet; any data stored on computer were password protected. All portable data systems were encrypted.

### 3.6.4 Ethical issues

Research in the emergency setting presents unique ethical challenges because the ability to obtain informed consent is often limited (Chamberlain et al 2009). Ethics committee and local research governance approvals were sought and approval for the study was given by South West 3 Ethics Committee (REC reference number 11/H016/7), The University of the West of England Health & Life Sciences Faculty ethics committee and the University Hospitals Bristol NHS Foundation Trust Research and Development Department. The researcher has experience of carrying out and successfully completing previous research studies within an emergency care setting, and utilised this experience to inform this study.

There are inherent problems with recruiting patients attending an emergency department as they may be vulnerable and/or seriously ill or injured/emotionally upset, but this should not deter the researcher from undertaking well designed and sensitive research in such a setting (Nee & Griffiths 2002; Bengler & Carter 2008). Thus it is imperative that the methods used in data collection enhance and maximise the researcher's ability to access all population groups who may attend the emergency

department. It is important for researchers to acknowledge that one quarter of the United Kingdom (UK) population is functionally illiterate and therefore unlikely to be able to or wish to complete questionnaires (The Literacy Trust 2010). This fact was taken into consideration, and the researcher utilised learning from previous studies undertaken in emergency care which used researcher administered questionnaires. This is highly resource intensive, but allows harder to reach groups of the population, to be surveyed (Binks et al 2005).

Patients who are unconscious and/or are seriously ill were excluded from the study. Patients were given the opportunity to withdraw from the study at any time during the data collection phase. In order to address the potential ethical issues identified in recruiting patients in the emergency care setting the following caveats were implemented. Patients were recruited from the 'minor end' of the ED, so it could be argued they were not excessively ill, stressed or vulnerable. Patients were only approached if they were believed to have capacity, and this was accompanied by all patients giving informed consent to take part in the study. In addition the study was designed to be very straightforward in order to collect appropriate data without compromising the patient's treatment or time in the department. All data were anonymised and data could not be attributed to an individual within the study by anyone besides the participant or researcher who coded all responses. It was made clear to patients that decisions about whether they took part in the study would not impact on the care they received, in an attempt to ensure patients did not feel coercion in order to take part; it was felt that approaching patients to consent to take part in the study as they were leaving the ED gave them less cause to feel uncomfortable if they declined to take part. Additionally it was also stressed that the study would not affect or delay their treatment and assessment. In phase 3 the data from the focus groups were anonymised to ensure that no member of the focus group was identifiable from the data discussed and published in the final thesis, although direct quotes have been used which can only be potentially identified by the participants and the researcher by the codes attributed to the participants for data analysis.

### **3.7 Data Analysis**

#### **3.7.1 Aims of quantitative data analysis**

Data collected from phase one and phase two of the study was entered into a SPSS (version 19) data matrix. The data matrix was prepared for each sample (participants in phase one and two). Dichotomous (nominal) categories were coded by defining and labelling each of the variables and assigning numbers to each of the possible responses. The SPSS data matrix was screened and cleaned for any anomalies in order that a valid and reliable dataset could be analysed. No missing data needed to be accounted for in the data matrix. Simple descriptive statistics were used to identify frequencies. In order to explore the strength of relationship between identified variables non-parametric statistics were used because assumptions could not be made about the underlying population distribution since some of the samples were very small. A chi-square test for independence was used in order to explore the relationship between two categorical variables (2 x 2 table). When the data was found not to meet the assumption that the expected frequency in any cell should be five or more, Fisher's Exact Probability Test was used instead.

#### **3.7.2 Aims of qualitative data analysis**

The qualitative analysis aimed to explore in depth the perceptions, experiences and behaviours of the participants. This element of the study aimed to try and answer 'why' participants had chosen to seek unplanned follow up or not and also to explore and understand their perceived confidence in the healthcare professional they believed had treated them.

#### **3.7.3 Content analysis used in phase two and phase three**

Within the telephone interview patients were asked open questions to ascertain how satisfied or not they were with the treatment they had received and the healthcare professional they saw. Content analysis was carried out by reading the data thoroughly, searching the data for categories and then coding all the data appropriately (Silverman 1993; Robson 2005). The practical process of doing

qualitative analysis involved organising, structuring and deriving meaning from the research data (Silverman 2000). Crabtree and Miller (1992) describe an approach of an editing style of analysis whereby the researcher identifies meaningful data by coding and indexing data, developing categories and themes within the data collected and then acts as interpreter and analyser by drawing the research together. The product of coding and structuring the data is described as 'data condensation' or 'data distillation' by Tesch (1990), suggesting that these terms describe the process of not only reducing the amount of original data collected and thus making it more manageable, but more importantly the data is condensed or distilled as a result of interpretation and organisation. Category names can come from ideas or conceptual meanings already recognised in the professional discipline or may be words and phrases used by the participants themselves (Strass and Corbin 1990: Braun & Clarke 2006). Electronic methods of coding using software packages such as NVIVO are increasingly being used by researchers in order to assist in data management. Ely et al (1991) describe how useful these tools can be in aiding the researcher who has a great deal of data to code. Because this was a relatively small study, and having weighed up the advantages outlined above and the disadvantages including the resources required in order to learn how to use a new software system accurately, I decided to code the data in this study manually. A worked example of how the data was coded can be found in appendix 10 using a framework adapted from Braun & Clarke (2006).

Three focus groups were carried out. The initial aim was to interview three groups; group one comprising patients who had sought unplanned follow up within two weeks of their initial ED attendance and a second group who had not sought unplanned follow up within two weeks of their initial visit to the ED. The third group was to comprise of patients who had had planned follow up arranged for them at their initial ED visit. Letters were sent out to participants from phase two of the study inviting them to take part in a focus group, and giving a choice of dates and times. A stamped addressed envelope was included with the invitation letter.

Several different strategies were employed in order to try and recruit participants including contacting them by letter, and by telephone with a choice of dates to attend a focus group, as well as offering a voucher as an acknowledgement of their time for



attending a focus group. Participants who had agreed to take part in a focus group were also contacted the day before in order to act as a reminder and confirmation of their attendance.

The aim of the focus groups was to establish participants' subjective understanding of and feelings about their visit to the emergency department, and to explore if they felt satisfied with the healthcare encounter and the healthcare professional who diagnosed and treated them. The qualitative analysis of the digitally taped focus groups took place by preparing the data for analysis, developing the coding framework and then undertaking the data analysis itself. The established coding framework was then applied to the transcripts. Once the data were coded, the emergent themes were coded and analysed. The categories were kept as broad as possible. Using the rule of parsimony enables the data to remain manageable and permitted subcategories to be derived from the larger domain (Morse and Field 1996). Miles and Huberman (1984) suggest eleven tactics for generating meaning from transcribed and focus group data which were used as a framework for the data derived from the focus groups and telephone interviews (noting patterns, seeing plausibility, clustering, making metaphors, counting contrasting and comparing, partitioning variables, subsuming particulars into the general, factoring, noting relations between variables, building a logical chain of evidence, making theoretical conceptual coherence). Latent content analysis was then utilised within the process of analysis. Fox (1982) describes this technique as being used commonly within qualitative analysis. Data is reviewed in the context of the entire interview in order to identify and code the intent and significant meanings within the text. This, Fox (1982) argues allows the overt intent of the participants to be coded, in addition to the analysis of the underlying meanings within the responses. Morse and Field (1996) comment that this method has high validity but may be less reliable due to the potentially subjective nature of the coding system.

All participants were consented to the third phase of the study on the day they attended. In groups one and two an ice breaking exercise was used to try and relax the participants and introduce them to each other. This technique was not used in group three because there was only one participant. The interviews were recorded with the participant's permission. Later on the interviews were transcribed and content analysis

carried out in order to identify emerging themes. Verification of the themes was undertaken by a member of the supervision team.

#### 3.7.4 Issues of validity and reliability in these data collection approaches

The aim of validity is to assess the extent 'to which an instrument measures what it claims to measure or the level of correspondence between items such as variables, data, and methods' (Cavanagh 1997:12).

#### 3.7.5 Validity in Qualitative approaches

Lincoln and Guba (1985) argue that a key aspect of good systematic qualitative research is credibility, in that participant experience is accurately interpreted. Silverman (2000) suggests on the other hand that what is required is a form of validity that does justice to, and is respectful of, the participant's experience and contribution to the research. Participant validation, whereby interview scripts and/or aspects of the analysis are returned to study participants to be verified, modified or rejected, is one technique often used by researchers (Burnard 1991). However there are several arguments against this technique which include the additional resources required in order to either reconvene groups or contact individual group members to check transcribed data. An additional argument is that by inviting respondent validation the researcher is asking the respondent to agree with the way in which they perceive they are portrayed and they may feel uncomfortable in their responses when taken out of context of the original discussion, and may feel that the researcher is inviting and allowing them to change their response in light of the individual's perception of reality, which is not the case (James & Bloomer 2003). In order to increase the validity of the process of content analysis the data generated by the focus group interviews were also analysed by a member of the supervision team in order to ensure there were no discrepancies in the codes generated from the data.

#### 3.7.6 Reliability in Quantitative approaches

Reliability refers to consistency and/or repeatability of the measurement within the research carried out. Quantitative approaches to data collection and generation are

generally associated with increased reliability (Shih 1998). In this study consistency can relate to the questionnaires being clear and well defined in order to reduce the possibility of misinterpretation by the respondents. The chances of this occurring were reduced by the questionnaire being administered by the researcher so that respondents could clarify their understanding of the questions. Additional consistency was built into this approach by use of simple descriptive statistics and statistical tests such as Chi square and Fisher's exact probability test using SPSS. The use of accepted rules contributes to the consistency and repeatability of the data analysis, and Haughey (1994) highlights how validity (which impacts on reliability) can be threatened when using quantitative approaches if the criterion of statistical tests is violated.

### 3.7.7 Reflexivity

Early on in the development of this thesis I realised that there could be tensions between my roles as a senior nurse and professional lead for the ENP service within the emergency department in which the data were being collected as well as my role as a researcher undertaking research training in the theoretical and practical issues of health research. It is essential to acknowledge that organisational, professional and personal contexts will affect the way a piece of research is developed and undertaken. Costly et al (2010) describe the person undertaking research within their own professional setting as an 'insider researcher'. They highlight the potential bias which may be introduced and the need to acknowledge the subjective nature of researching your own practice where there might a risk of lack of impartiality as a well as a vested interest in achieving certain results. Murray and Lawrence (2000) also highlight the issues of gathering data as an insider and advise the researcher to consider issues of insider bias and validity within their work.

There are, however, many positives to researching an area in which you are familiar. Costly et al (2010) identify how when researchers are insiders they are in a unique position to study a particular phenomenon in depth and with knowledge and shared understanding about particular issues. Starting from an informed perspective allows the researcher to incorporate the in depth knowledge of complex issues which impact and influence the research topic to inform the research design and shape the research

question to be answered. It could certainly be argued that in depth knowledge and familiarity with an area of practice could also lead the researcher to bring with them their inbuilt bias and lack of objectivity around the issue to be explored in depth, but one would hope that the researcher would be wary of this and have critically reviewed the issues within the governance processes needed to be completed in order to gain ethical approval to undertake the study, as well as having been constructively challenged by their supervision team. Reed and Proctor (1995) identified specific idealised criteria for practitioner research in order to ensure the research is relevant in health care; a social process undertaken with colleagues, focused upon aspects of practice in which the researcher has some control and can initiate change, able to identify and explore the socio-political and historical factors affecting practice, able to integrate professional and personal learning and finally likely to yield results which are of interest and generalizable to a wider audience. All these criteria were met in the completion of this thesis.

### **3.8 Summary of chapter**

This chapter has set out the aims and underpinning philosophical approach to the research design of the study, and explained the reasons for using a mixed methods design. The methods of data collection in this three phase study have also been discussed and justified, including a consideration of reflexivity.

## **4. Results**

### **4.1 Introduction**

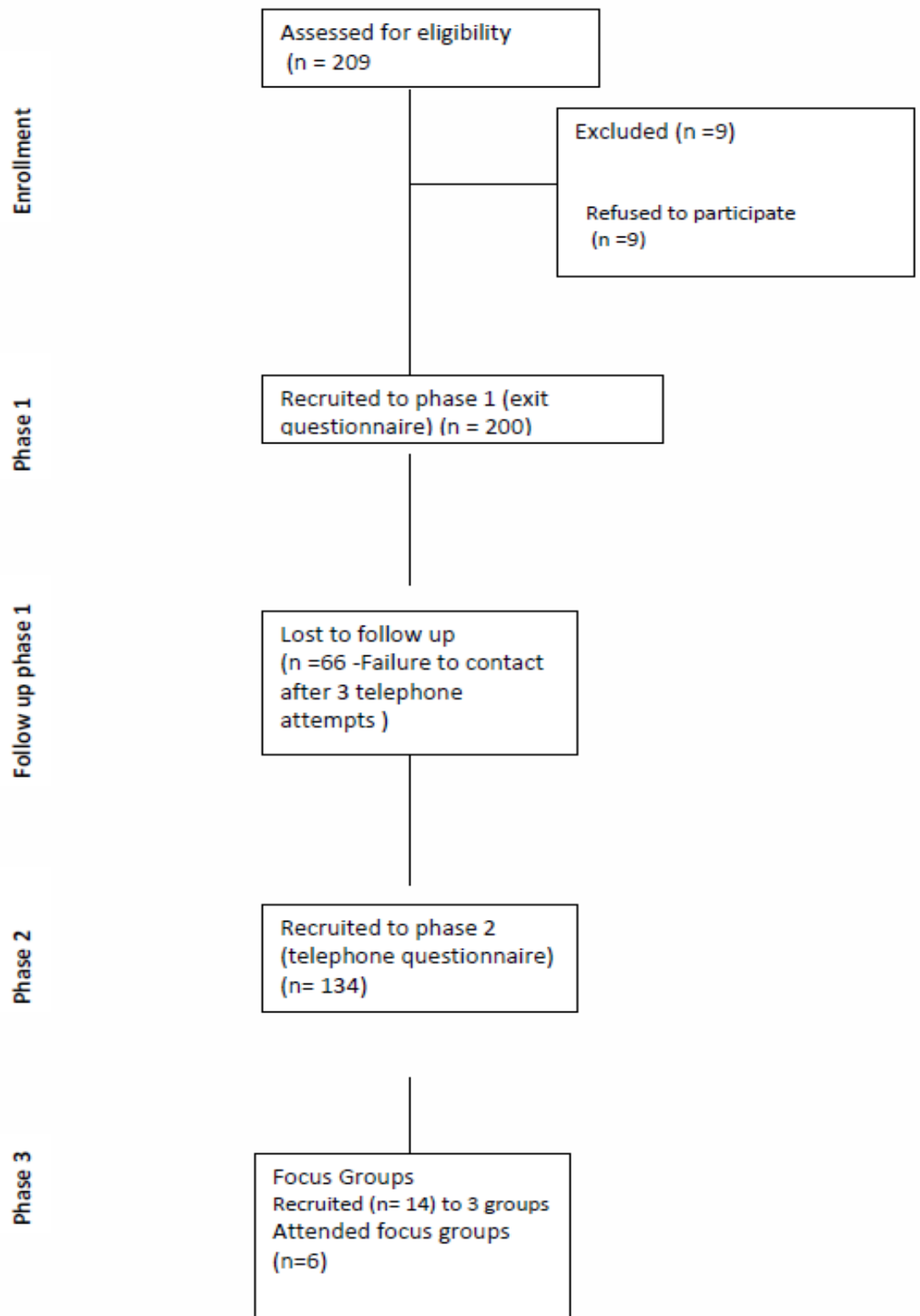
This chapter presents the results and analysis of the three phases of the study. The discussion chapter will explore the findings in more depth and draw conclusions from the analysis.

### **4.2 Phase 1: Description of patient characteristics**

The aim was to recruit 200 patients to this part of the study, and this was achieved over a period of 20 months from September 2011 to April 2012, both 'in hours' Monday to Friday 9-5pm and out of hours; (5pm to midnight) and at weekends. In total 115 male patients and 85 female patients were recruited representing a fairly even split between genders.

Figure 1 Results overview

Modified Consort Diagram



#### 4.2.1 Characteristics of patients recruited in phase one

The mean age of the total sample of participants was 35 years with the minimum age being 16 years old and the maximum being 84 years old. The median age was 31 years. Breaking this down further, the mean age of female patients was also 35 years (range 16-83 years) and a very similar age distribution was found in the male patients (mean age 35 years, range 16-84 years). Both the doctor and ENP professional groups treated broadly similar age ranges and numbers of patients in each age group while the ESP group treated a younger patient profile with 93% (n=14/15) of this group being under 45 years old.

*Table 11 Age range of patient and professional group*

Professional Group	16-24 years	25-34 years	35-44 years	45-54 years	55-64 years	>65 years	Total
ENP	31	24	18	13	7	6	99
Doctor	30	22	14	12	3	5	86
ESP	4	8	2	0	1	0	15
<b>Total</b>	<b>65</b>	<b>54</b>	<b>34</b>	<b>25</b>	<b>11</b>	<b>11</b>	<b>200</b>

#### 4.2.2 Time of day

Approximately two thirds of patients (68.5% n=137/200) attended 'in hours' (Monday to Friday 9-5pm). 31.5% (63/200) attended out of hours; with 19% (38/200) of patients attending out of hours Monday to Friday, and 12.5% (25/200) of patients attending at the weekend.

#### 4.2.3 Presenting complaint

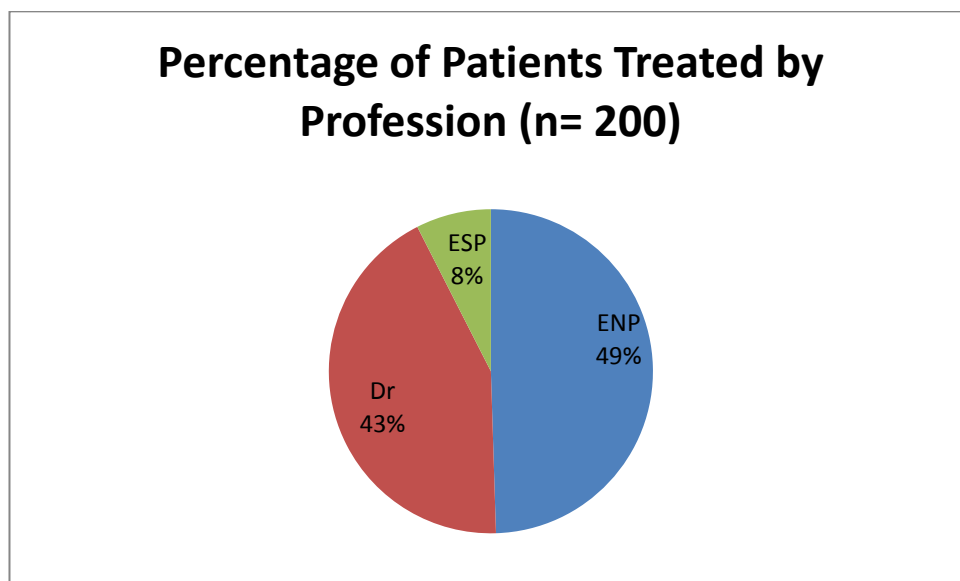
The majority of patients recruited to the study presented to the ED with an injury (84% n= 168/200) rather than an illness (16% n= 32/200).

Again across the male and female participants the split of presentations was almost equal, with 15% (18/115) of male patients presenting with an illness and 85% (97/115) with an injury and 18% (15/85) of females presenting with an illness and 82% (70/85) presenting with an injury

#### 4.2.4 Treating Healthcare Professional

99/200 (49%) patients were seen by an ENP, 86/200 (43%) patients were seen by a Dr and 15/200 (8%) patients were seen by an ESP.

*Table 12 Percentage of patients treated by profession*



#### 4.2.5 Identification of the treating healthcare professional

All patients were asked in phase 1 who they thought had treated and discharged them during their ED visit that day.



81% (62/200) of patients were able to correctly identify the profession of the HCP who treated them at their initial visit to the ED. 19% (38/200) of patients identified the HCP who treated them incorrectly. Twenty five per cent (26/99) of the patients treated by an ENP incorrectly identified the ENP as a doctor (both male and female ENPs), while 5% (4/86) of the patients treated by a doctor incorrectly identified the doctor as an ENP; all these patients had been treated by a female doctor. 53% (8/15) of patients treated by a male ESP incorrectly identified him as a doctor.

*Table 13: Confidence intervals associated with the correct identification of the treating healthcare professional*

Treating HCP	Correct identification	Incorrect identification	Percentage correct	95% Confidence intervals
Doctor N= 86	82	4	95.3%	88.6% to 98.2%
ENP N= 99	73	26	73.7%	64.3% to 81.4%
ESP N= 15	7	8	46.7%	24.8% to 69.9%
<b>TOTAL</b>	162	38	81%	

Confidence intervals calculator at: <http://www.vassarstats.net/prop1.html>

### 4.3 Phase 2

All 200 patients had consented to take part in the second part of the study two weeks later. This entailed ringing patients and administering a short questionnaire. After 3 attempts at contacting the patient by telephone or attempting to contact the patient by text the patient was deemed lost to follow up. The final completed successful follow

up rate was 67% (with 68 patients lost to follow up). This compares favourably with a follow up success rate of 31.8% to 52.9% reported previously (Boland et al 2006).

#### 4.3.1 Characteristics of patients followed up in phase 2

There were 134 patients in this group. Fifty nine percent (79/134) were male and 41% (55/134) were female. The mean age of patients was 34.9 years old (range 16-84 years old). The median age was 31 years old.

The majority (52.2%) had been treated by an ENP (70/134), 43.2% had been treated by a doctor (58/134) and 4.5% (6/134) had been treated by an ESP. The percentage of patients seen by doctors in this group was almost the same as in the original group in phase one (43% n= 86/200). However almost half of the patients seen by the ESP group were lost to follow up, and a greater percentage of patients in this group were seen by ENPs.

The majority (84.3% n=113) had attended with an injury, and 15.6% (21/134) of patients in this group had attended with an illness. This profile was very similar to the initial group of patients recruited to phase one of the study.

70.8% of patients attended the ED 'in hours' (95/134), with 29% (39/134) of patients attending out of hours: 16.4% (22/134) attended out of hours Monday to Friday and the remaining 12.6% (17/134) of patients in this group attended at the weekend. This profile of attendance is broadly similar to the whole sample of patients recruited in phase 1.

#### 4.3.2 Satisfaction with ED visit

An overwhelming finding was the high degree of satisfaction expressed when patients were asked how satisfied they had been with their visit to the ED. 92.5% (124/134) of respondents in phase 2 said they were satisfied with their visit. The comments below reflect the scope of positive responses to this question:

- *Could you transfer your hospital to where I live, everyone was wonderful from the ambulance crew to the doctor to the staff nurse in obs. The care was excellent.*

- *It was perfect, staff were ever so good, so lovely, nurse was ever so lovely.*
- *Extremely happy, treated with dignity and respect, all good.*
- *Great, very quick treatment, doctor was very good, explained everything really well.*
- *Absolutely brilliant. Didn't have to wait long. More than happy with everything. Doctor put my mind at rest.*

Six patients talked about the waiting time rather than their satisfaction with the visit and 3% (4/134) of patients stated that they had not been satisfied with their visit. It was clear that their expectations had not been managed well, and that they did not feel as though they had been listened to or had confidence in the diagnosis.

- *The wait was really long for how long I was actually seen. She gave me some medication which I'm not sure if it actually helped or not, but when I saw the dentist the next day they told me to carry on with it. (Patient 193, seen by a doctor, sought unplanned follow up).*
- *No I wasn't really happy. I had to wait for ages and they didn't know what was wrong with me and then they sent me home. The last doctor I saw told me that I had a locked knee (Patient 151, seen by a doctor, had planned follow up).*
- *I wasn't told what was wrong with me and I was unhappy that I didn't have a definite diagnosis and it was made clear to me that I should go to my GP if I wanted a follow up (Patient 129, seen by an ESP, sought unplanned follow up).*
- *A bit disappointed in waiting time. Waited 2½ hours. Didn't feel cared for. Felt like cattle in the waiting room. Where we were in a little corridor, it just felt awful - if I was more vulnerable I'd have been annoyed and frightened. No one seemed to care. Some people were getting annoyed about this. I asked for directions and was dismissed. Doctor was ok, very quick, he kept telling me I could go back to work - no idea what I do as a job -you [the researcher] were the nicest person I saw while I was there. (Patient 121, seen by a doctor, did not seek unplanned follow up).*

#### 4.3.3 Unplanned follow up (n= 24/134)

Patients were asked if they had seen any other healthcare professional in the 2 weeks following their visit to the ED. 18% (24/134) of patients had sought unplanned follow up for the injury or illness with which they had initially presented to the ED.

Of the patients successfully followed-up, those seen by a doctor in the ED had the highest unplanned follow up rate of 21% (12/58), with similar rates for ESPs (17% n=1/6) and ENPS (16% n=11/70)

#### 4.3.4 Characteristics of patients who sought unplanned follow up

63% (5/24) of the patients who sought unplanned follow up were male and 37% (9/24) were female. The mean age of patients in the unplanned follow up group was 36 years old (minimum 18 years and maximum 68 years old). These characteristics are very similar to the overall patient sample.

#### 4.3.5 Time of day

67% (16/24) of patients in this group had attended the ED in hours, (Monday to Friday between 9am and 5pm) while 23% (8/24) of patients had attended the ED out of hours, with 25% (6/24) of the group attending between 5pm and 9am on a weekday and 8% (2/24) attending at the weekend.

#### 4.3.6 Type of Presentation

Of the 24 patients who sought unplanned follow up almost a third; 29% (7/24) attended with an illness, whilst the remainder attended with an injury (71% n= 17/24). The majority of patients presenting with an illness who subsequently sought unplanned follow up attended the ED initially out of hours (86% n= 6/7).

71% (17/24) of patients who sought unplanned follow up attended with an injury, with the majority of these patients (88% n=15/17) presenting 'in hours' (Monday –Friday 9-5). Only 12% (2/17) of the patients who presented with an injury out of hours went on to seek unplanned follow up in the next 2 weeks. It is important to note that the numbers associated with seeking unplanned follow up were small, and this should be taken into consideration when consequent analysis of this group is undertaken.

#### 4.3.7 Where the patients sought unplanned follow up

The majority of patients (79% n= 17/24) sought unplanned follow up in primary care, either with their general practitioner (GP) or practice nurse (in two instances). Two patients returned to the ED because they were concerned their injury had worsened. One patient sought follow up with a dentist. Two further patients sought follow up at a walk in centre or minor injuries unit: in both instances they were concerned that their wound had become infected.

#### 4.3.8 Which healthcare professional the patients thought they had seen

Interestingly only one of the patients who sought unplanned follow up incorrectly identified the female ENP they saw as a doctor at their initial visit and still believed they had been treated by a doctor when asked two weeks later. Two patients had changed who they thought they had originally seen when asked two weeks later. One patient had correctly identified they had been seen by an ENP (female) at their original visit but recalled the treating HCP to be a doctor when asked two weeks after their attendance, and one patient correctly identified they had seen a doctor (male) but when asked two weeks later recalled seeing an ENP.

*Table 14: Unplanned follow up by healthcare professional seen*

HCP seen by	No of patients seeking unplanned follow up	No of patients seen by HCP in phase 2 (n=134)	Percentage of patients seeking unplanned follow up by HCP
Doctor	12	58	21%
ENP	11	70	16%
ESP	1	6	17%

#### 4.4 Patients followed up in phase 2

There were a total of 134 patients in phase 2.

Correct identification of the profession of the original HCP treating the patient was 76% (102/134) two weeks later (compared to 81% n = 162/200 in phase 1), with 23% (31/134) patients incorrectly identifying and/or remembering who had treated them at their initial ED visit.

Of the 134 patients recruited to phase 2, 43% (58/134) were seen by a doctor, just over half (52% n=70/134) were seen by an ENP and 5% (6/134) were seen by an ESP.

##### 4.4.1 Overall planned follow up rate by healthcare professional

Doctors were found to have the highest overall planned follow up rate for their patients, at 48% (41/86), while ESPs showed a 47% (7/15) follow up rate and ENPs demonstrated the lowest planned follow up rate at 42% (42/99). Planned follow up appointments comprised fracture clinic follow up for patients who had a fracture or dislocation of a bone or joint, review with the patient's GP or practice nurse, wound review in a minor injury or walk in centre, and follow up arranged at another hospital for a review of the patient's presenting complaint: for example an outpatient review at an eye hospital, or plastics review at the local tertiary centre for on-going complex wound management.

*Table 15: Combined planned and unplanned follow up rates by professional group*

HCP	Planned follow up rate	Unplanned follow up rate	Combined follow up rates
Doctor	48%	21%	63%
ENP	42%	16%	54%
ESP	47%	17%	54%

#### 4.4.2 Characteristics of Patients lost to follow up in phase 2

If 3 attempts to contact a patient by phone were not successful the patient was classified as lost to follow up. 34% (68/200) of patients were lost to follow up. The mean age of patients in this group was 35 year old (range 16- 75 years old). The median age was 32 years old. There was roughly an equal split of male and female patients lost to follow up: 52% were male (34/66) and 48% were female (32/66)

Comparing this to the group of patients who were successfully followed up (n=134), the characteristics were very similar in terms of gender and age.

#### 4.5 Research questions

The SPSS data matrix was used to establish whether there was a relationship between identified variables in this patient population.

##### 4.5.1 Is there a relationship between the occupation of the healthcare professional treating the patient and unplanned follow up?

Statistical testing indicated that the profession of the healthcare professional did not influence the likelihood of the patient seeking unplanned follow up in the 2 weeks following their initial presentation to the emergency department (Fisher's exact test,  $p=0.155$ ). When just the ENP and doctor groups were compared using Chi Square, statistical significance was not reached (Chi square  $p=0.1$ )

*Table 16: Number of patients who sought unplanned follow up by professional group*

		Did the patient seek unplanned follow up within 2 weeks of original ED visit?			Total
		lost to follow up	Yes	no	
Job title of treating healthcare professional	Nurse practitioner	28	14	63	99
	Doctor	31	11	44	86
	Extended scope practitioner	9	1	5	15
Total		68	26	106	200

Therefore, the patients in this study were no more likely to seek unplanned follow up according to the healthcare professional they saw at their initial visit.

Is there a relationship between who the patient believed they were treated by and who they were actually treated by?

Fishers exact test demonstrated that there was a statistically significant relationship ( $p < 0.001$ )

*Table 17 Patients perception of job title by professional group*

		Patient perception of job title			Total
		ENP	Doctor	ESP	
Actual HCP treated by -	Nurse practitioner	73	25	1	99
	Doctor	4	82	0	86
	Extended scope practitioner	0	8	7	15
Total		77	115	8	200



In this study there was a 1 in 4 chance that the patient thought they had been treated by a doctor when they had actually been treated by an ENP. When a patient was treated by an ESP the patient was more likely to think that they had been treated by a doctor (53%), but only a 5% chance that a patient treated by a doctor thought they had been treated by a non-medical healthcare professional.

4.5.2 Is there a relationship between the gender of the healthcare professional and correct identification of their professional group by the patients they treated?

*Table 18 Gender and identification of ENP*

	Identified ENP	Did not identify ENP
Male ENP	19	3
Female ENP	60	17

Fishers exact test  $p= 0.04$

*Table 19 Gender and identification of doctor*

	Identified doctor	Did not identify doctor
Male doctor	47	0
Female doctor	35	4

Fishers exact test  $p= 0.03$

*Table 20 Gender and identification of ESP*

	Identified ESP	Did not identify ESP
Male ESP	7	8
Female ESP	0	0

Fishers exact test  $p=1$

Statistical tests indicated that there was a relationship between the gender of the HCP and who the patient thought they had seen. Statistical significance was reached if the patient had been treated by an ENP or doctor. However the relationship between gender and identification or not of an ESP did not reach significance due to just a single practitioner being included in the study.

In this study the results suggest that if a patient saw a female HCP they were more likely to assume they were an ENP and if they saw a male they were more likely to assume they were a doctor.

4.5.3 Is there a relationship between the gender of the patient and whether they sought unplanned follow up within 2 weeks of their visit to the ED?

Sex of Participant	Lost to follow up	Sought unplanned follow up within 2 weeks of ED visit	Did not seek unplanned follow up within 2 weeks of ED visit	Total
Male	36	34	45	115
Female	32	25	28	85
Total	68	59	73	200

*Table 21 Gender of patient and unplanned follow up*

No relationship was found (Fisher's exact test  $p= 0.626$ ). Patients were no more likely to seek unplanned follow up whether they were male or female.

4.5.4 Is there a relationship between the gender of the patient and if planned follow up was arranged for them at their initial ED visit?

Sex of participant	Type of planned follow up arrange at initial visit to ED								Total
	Fracture clinic	Physio	ENP review	GP	Practice nurse	no follow up	WIC	other hospital	
Male	27	5	1	13	5	60	3	1	115
Female	18	3	0	10	1	50	0	3	85
Total	45	8	1	23	6	110	3	4	200

Table 22 Gender of patient and planned follow up

No relationship was found (Fishers exact test  $p=0.511$ ). Patient gender did not influence whether planned follow up was arranged for the patient at their initial ED visit.

4.5.5 Is there a relationship between the age of the patient and whether they sought unplanned follow up?

Age of patient in years	Lost to follow up	Sought unplanned follow up	Did not seek unplanned follow up	Total
16-24 years	23	18	24	65
25-34 years	16	18	20	54
35-44 years	14	9	11	34
45-54 years	8	7	10	25
55-64 years	4	4	3	11
65-74 years	1	2	1	4
>75 years	2	1	4	7
Total	68	59	73	200

Table 23 Age range of patient and unplanned follow up

There was no relationship found (Fishers exact test  $p= 0.943$ ) suggesting that older or younger patients were no more likely to seek unplanned follow up in this study.

4.5.6 Is there a relationship between a patient seeking unplanned follow up and the time they attended the ED (“in hours” versus “out of hours”)?

	Time of ED visit: 9-5 Monday to Friday	Time of ED visit: Out of Hours Monday to Friday	Time of ED visit: Out of hours at weekend	Total
Lost to follow up	43	17	8	68
Pts did seek unplanned follow up within 2 weeks	41	13	5	59
Pts did not seek unplanned follow up within 2 weeks	53	8	12	73
Total	137	38	25	200

*Table 24 Unplanned follow up and time of arrival*

It was hypothesised that patients may be more likely to seek unplanned follow up if they attended the ED ‘out of hours’. No relationship was found (Chi squared  $p = 0.18$ ). This suggests that patients were no more likely to seek unplanned follow up if they attended after 5pm on Monday to Friday or at the weekend.

4.5.7 Is there a relationship between a patient attending the ED out of hours and whether planned follow up was arranged for them?

Type of planned follow up arranged	Time of ED visit: 9-5 Monday to Friday	Time of ED visit: Out of Hours Monday to Friday	Time of ED visit: Out of hours at weekend	Total
Fracture clinic	34	7	4	45
Physio	5	2	1	8
ENP review	1	0	0	1
GP	13	6	4	23
Practice Nurse	5	1	0	6
No follow up	76	19	15	110
WiC	2	0	1	3
Other Hospital	1	3	0	4
<b>Total</b>	<b>137</b>	<b>38</b>	<b>25</b>	<b>200</b>

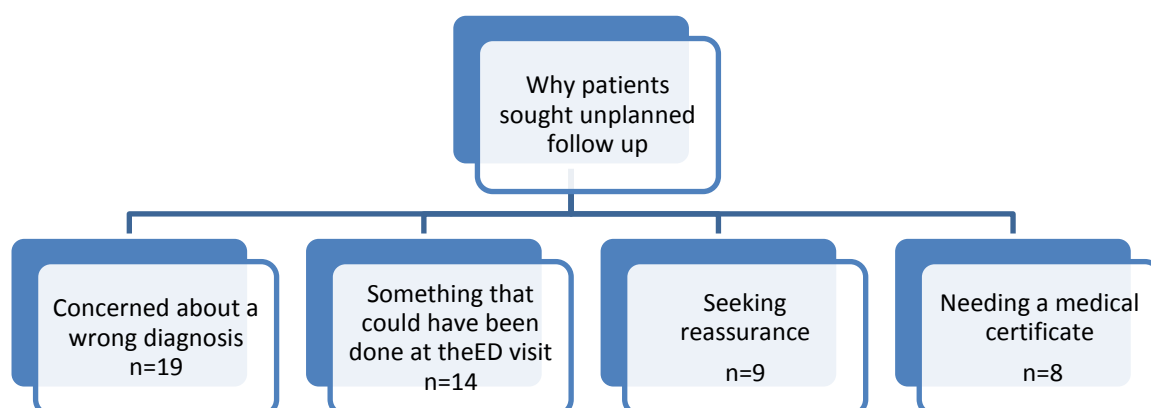
Table 25 Out of hours attendance and planned follow up

. It was hypothesised that healthcare professionals may arrange an increased amount of planned follow up for patients they saw out of hours due to issues such as less senior advice being available. No relationship was found (Fishers exact test  $p= 0.475$ ) suggesting that healthcare professionals were not more cautious when they discharged a patient out of hours (by being more likely to arrange a follow up appointment for that patient).

#### 4.6 Content analysis at 2 weeks

Two overarching themes of 'why patients sought unplanned follow up' and 'patient satisfaction' were found. Four major themes were identified when the overarching issue of why patients had sought unplanned follow up was explored. Four main themes were associated with patient satisfaction.

Figure 2 Why patients sought unplanned follow up - themes



#### 4.7 Theme: why the patients sought unplanned follow up

The first theme to be examined was why patients had sought unplanned follow up, since this was the main focus of the study. The reasons could be sub divided into the following categories:

##### 4.7.1 Concerned about a wrong diagnosis/worried there was something really wrong

Seeking unplanned follow up seemed to be related to on-going pain, and the respondents identified that it was not only the pain that concerned them but that it may signal something was wrong with them such as they were having a heart attack:

- *On-going pain, I was worried about an infection or a heart attack .(patient 194)*
- *I made an emergency appointment because I was in so much pain. (patient 193)*
- *Was taken back to A&E a week later with pains inside, under tests to find the problem, awaiting an endoscopy. (patient 118)*
- *Couldn't move neck at all - very stiff. Still there, seen GP about it...No complaints with care .(patient 66)*

This patient was concerned because his symptoms were not resolving and he was concerned that he may have got lost in the system because he had not heard about an outpatient appointment:

- *Had to come back to A&E because symptoms weren't getting any better. Was told I would be phoned with an urgent outpatient appointment in 48 hours. When I hadn't heard anything after 5 days I rang up and was given an appointment for 5 week's time. I told them I had an urgent case. (patient 127)*

A lack of a diagnosis at discharge from the ED caused one patient concern and so they sought unplanned follow up.

- *Got quite ill and had to be admitted to hospital somewhere else. It was a complete misdiagnosis initially, he said it was a tendon injury and actually it turned out to be some sort of infection .(patient 126)*

Another patient felt he had been misdiagnosed and when he became increasingly ill, sought unplanned follow up in an ED at a different hospital:

- *Lack of diagnosis and potential on-going symptoms worried me .(patient 129)*

#### 4.7.2 Something that could have been done at the ED visit

This category identified several issues; firstly that two patients experienced a worsening of their symptoms, and the first patient felt that further investigations that were carried out when he attended the second hospital would have revealed the cause of his problem at his first attendance:

- *Knee continued to swell up. 2 days later I was really unwell, so they drained the knee and found it was some sort of arthritis, I was admitted for 2 days and now I'm being followed up by the rheumatology team in Weston - due to see them again in January they to drain the knee at Weston. That was the crucial difference. Slightly more detailed investigation at Weston. I realise it was a hard/difficult diagnosis and I was happy with my treatment on the day (patient 126)*

The initial expectations of the second patient were not managed well and when he was discharged he felt it was directly related to the fact there were inadequate resources available: he felt that he should have been admitted and not sent home:

- *Was expecting to be admitted because I had a rip roaring urine infection and was told I needed intravenous antibiotics but there were 6 ambulances queuing and no beds available so I was sent home with tablets I think I needed to come into hospital and have the intravenous antibiotics and then I wouldn't have the problems I'm having now. I was treated well and everyone was nice but this is the problem with the NHS now - there are not enough staff to do their jobs. (patient 127)*

Another patient expressed her frustration, firstly in getting access to information about emergency dentists when another patient was offered it but she was not and secondly when she tried to access this service. She reported that she was denied an appointment because the service was due to close for the night

- *I was asked if I'd seen a dentist and I said I'd spoken to a dentist and my GP and they couldn't help and then I was asked to take a seat. But the next person who booked in straight after me also had tooth pain and they were told about the emergency dentist and given a leaflet which I wasn't. My husband went back up and asked for a leaflet and we rang but they told us they were closing in half an hour and couldn't see me. I'm not sure why I wasn't told about it.(patient 193)*

Another patient developed a wound infection and suggested that being given antibiotics at his original attendance to the ED would have been useful:

- *Don't know if they could have given me antibiotics at the time .(patient 128)*

However the final two patients, despite seeking unplanned follow up, did not think that anything different could have been done for them at their initial ED visit:

- *I just wanted to know if it was infected. They told me it wasn't which is what I wanted to hear. (patient 170)*
- *Was grateful they could rule out any problems with my heart - I don't think anything else could have been done. GP done blood tests/xray to eliminate anything the hospital haven't thought of. (patient 118)*

#### 4.7.3 Seeking reassurance

Fifty per cent (9/18 patients who sought unplanned follow up) commented that they needed to seek reassurance as they thought things were not progressing as they expected or had been told to expect they would. They all sought advice from either a primary care provider or a minor injury or walk in centre.

- *I still had symptoms and didn't know if I had to keep taking the antibiotics. (patient 199)*

Another patient identified that they thought their wound was infected and so thought they would get their wound checked earlier than they had been advised to:

- *It was infected when the stitches were removed. Had some antibiotics, it's cleared up the infection but it's affected my nail that's a bit of a mess and prolonged it all. (patient 128)*



Another patient admitted that they had missed two planned appointments and so had sought unplanned follow up when they became concerned that their wound had become infected. They seemed to have tried to rearrange a third appointment with the specialist clinic but had given up trying to arrange this when the researcher interviewed them

- *Puffy, smelly & pus coming from finger injury Missed plastics follow up appointment, saw dressing clinic nurse, had some iodine & it redressed. They wanted me to have another appointment to see Dr but missed it. Have tried ringing loads to make another appointment but can't get through so given up. (patient 48)*

Interestingly, one patient identified that they had been seen so promptly in the ED originally that not all their injuries had become apparent and so they had seen their GP who had arranged further x-rays.

- *Foot is better, shoulder is now playing up. Hit shoulder at the time and the nurse was so good and quick that it wasn't hurting then. (patient 100)*

Five patients were concerned about their lack of progress or commented on the on-going pain which they had not been expecting, and so sought further advice and reassurance concerning their original problem.

- *On-going problems had to get some more painkillers from GP that's all that can be done for the moment. (patient 89)*
- *The problem wasn't getting any better. (patient 76)*
- *Concerned about progress, worried there was a problem ankle not too bad, quite a lot of pain, seen GP for reassurance - still painful/swollen, not sure what is going on. (patient 67)*

The following patients' comments highlight the importance of addressing how to manage pain effectively and also the importance of addressing the patient's expectation and the expected trajectory of their illness or injury.

- *Still a bit painful & swelling & tenderness away from where the original injury was. (patient 44)*
- *Getting better, but was still painful, told it would heal in 2 weeks, been longer than that now & concerned about time taking to heal. (patient 35)*

#### 4.7.4 Needing a medical certificate

Eight patients commented that they had had to make an appointment to see their GP in order to get a medical certificate to certify their sickness (or fitness to work).

One patient identified that actually he did not know if he would need one when he was in the ED:

- *I didn't know whether I would be fit enough to go on the trip when I was seen in A&E so couldn't really ask for the note then. (patient 167)*

But two other patients suggested that being given a 'fitness to work note' at their initial visit would have been helpful:

- *Couldn't work so needed to get a sick note .Giving me a sick note would have helped and stopped me having to go to the G.P (patient 143)*
- *GP signed off for 2 weeks until next physio appointment (it was a case of going into to work and seeing what I could do, but it was no good, I couldn't manage. Sick note would have been good. (patient 116)*

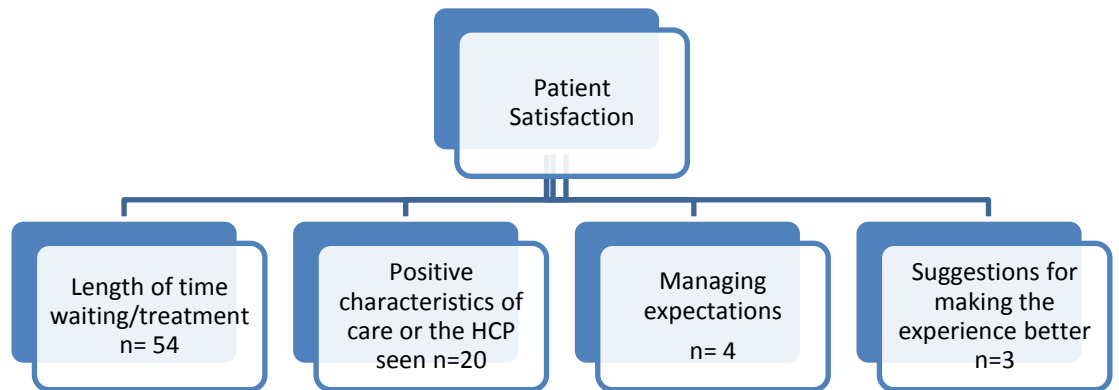
This patient went on to visit his GP in order to get his time away from work certified and commented on why he thought he was not given a 'fitness to work note' at his initial visit to the ED.

- *A&E could have given me a sick note but I can understand why they didn't, they didn't have time, it was too busy. (patient 184)*

The final patient did not think a 'sick note' given to him in the ED would have been helpful in preventing him having to visit his GP several times unless he had been given one covering two months, but he also indicated that he would have needed to visit his GP despite this because of the side effects he suffered from taking the painkillers prescribed for him:

- *Signed off for four weeks, saw him 2 weeks ago for sick note, physio in a weeks time... Not really, had to be signed off, unless signed off for 2 months, analgesia ran out, had problems with co-codamol .(patient 1)*

Figure 3 Patient satisfaction- themes



#### 4.7.5 Length of time waiting/treatment

When asked if they were satisfied about the care they received and their visit to the ED 41% of respondents (54/134) mentioned the wait to be seen or the time spent in the ED. The majority of comments were surprisingly positive about the wait to be seen or to be treated in the department: *Wasn't a long waiting time'* (patient 37) *Quite surprised seen so quickly in A&E* (patient38), *efficient & quick* (patient 55).

Understandably patients did mention longer waiting times but also seemed to accept that a long wait was part of the experience of being seen in an ED, and was an expected part of the visit.

- *Could moan about waiting times but...(patient 67)*
- *Quite a long wait though, but you expect that in hospital.(patient 120)*
- *The wait was quite long but it is an A&E and you expect to have to wait. (patient 167)*
- *You know what it is like these days, the wait in the casualty department was a very long time. (patient 124)*
- *The wait was quite long I guess but I understood why.(patient 190)*

Interestingly this patient was quite honest and admitted that he should have gone to his GP with his problem but he was not registered with a GP. He did not seem to make a connection between him presenting to the ED with a primary care problem and the

direct impact that this behaviour could have on increasing waiting times for all patients, including himself.

There were patients who negatively commented on the length of time to be seen but again appeared to accept that although annoying was something they had expected when visiting the ED.

- *The wait could have been shorter but you know...* (patient 137)
- *I had to wait for ages* .(patient 157)
- *The wait was kind of annoying, for 2 ½ hours* .(patient 160)
- *Just a really long wait to be seen* .(patient 191)
- *Wait time was ok, though can always be quicker* .(patient 73)
- *Wait time could be shorter* . (patient 102)

This patient made an interesting point that they did not feel that the time they had invested in waiting to be seen was worth the short amount of time they spent with the doctor who saw them, and she did seek unplanned follow up subsequently; *The wait was really long for how long I was actually seen*.(patient 193)

Conversely, some patients commented on how quickly they were seen, including a female patient who later sought unplanned follow up because she *Hit shoulder at the time and the nurse was so good and quick that it wasn't hurting then* (patient 100). This patient was treated for her accompanying foot injury, but subsequently her shoulder became painful so she visited her GP and an x-ray was arranged. It is plausible in this situation that being seen and treated so quickly actually contributed negatively to care, with the patient subsequently having to seek unplanned follow up in primary care.

Meanwhile other patients commented on how quickly they perceived themselves to have been treated, and discharged.

- *Only in ED 10 mins.*( patient 79)
- *In and out within 3 hours, think that's excellent with a broken wrist* .(patient 81)
- *Really, really, really surprised how quickly was seen and discharged* .(patient 90)

Some patients had obviously had previous experience of attending an ED and used this past experience and learning to compare their experience of their waiting time that

day : *Wait ok but can depend on the day, if you are in early in the day, it can be quick. (patient 28)*

It is important to manage patients' expectations and while waits can be difficult to predict accurately, this patient makes an interesting point that over estimating the wait and then 'over performing' in the patients perception can contribute to patient satisfaction levels .*The wait was ok, it said 4 hours on the sign but I was actually seen in an hour and a half.(patient 169)*. While simply giving patients an idea of the current wait to be seen can be helpful in allowing them to manage their lives, particularly as their visit is likely to have been unexpected and an unpredictable element of their day. *It would be really helpful to know how long the wait will be. (patient 93)*

Interestingly it seemed that if the patient liked the health care professional they saw they were likely to forgive or downplay the waiting time and their satisfaction of the experience was still high despite a lengthy wait to be seen

- *It was good, I did like the doctor. It was a fair wait yes but I had a good experience much more so than my local hospital. (patient 174)*
- *There was a long wait, but the doctor was great. (patient 198)*

Another patient identified that the triage system in the department worked well and clearly the immediate assessment and taking his presenting complaint seriously impressed him and contributed to his satisfaction of his visit,

- *I'd just like to say that when I turned up there were about 30 people in front of me but I was taken through and dealt with immediately I was well impressed.(patient 180)*

#### 4.7.6 Positive characteristics of the HCP seen

Twenty patients commented on the characteristics of the healthcare professional they were treated by in the ED, and it seemed important to them that they had confidence in the healthcare professional who treated them. Effective communication skills involving clear explanations were very important to the following participants, as well as the HCP displaying kindness and empathic characteristics:

- *Obviously knew what they were talking about .(patient 54, seen by a doctor, no unplanned follow up)*
- *Doctor was very good, explained everything really well. (patient 75, seen by a female ENP but thought they had been seen by a doctor, no unplanned follow up)*
- *Nurse explained everything to me really well. (patient 145 seen by an ENP, no unplanned follow up)*
- *Everyone helpful, nurse very nice. (patient 37 seen by an ENP, did seek unplanned follow up)*
- *ENP very kind & helpful, couldn't fault it .(patient 4, seen by an ENP did seek unplanned follow up)*
- *Seen quickly, nice doctor .(patient 53, seen by a doctor, did not seek unplanned follow up)*
- *Very helpful, put mind at ease. (patient 56, seen by an ENP, no unplanned follow up)*
- *Could you transfer your hospital to where I live, everyone was wonderful from the ambulance crew to the doctor to the staff nurse in obs. The care was excellent. (patient 111, seen by a doctor, no unplanned follow up)*
- *Treatment was great and nurses worked very hard throughout the night. (patient 118, seen by a doctor, did seek unplanned follow up)*
- *Doctor was very pleasant. (patient 128, seen by a female ENP but thought they had been seen by a doctor, did seek unplanned follow up)*
- *Everyone was most kind and thoughtful, I received very good care. (patient 152, seen by a doctor, did not seek unplanned follow up)*
- *The bloke who saw me was very considerate of my pain .(patient 163 seen by a male doctor, did not seek unplanned follow up)*
- *I think it was helpful to see the triage nurse quickly and to be given medication at that time as I was in so much pain and then I saw the doctor not soon after. (patient 177, seen by a doctor, did not seek unplanned follow up)*

#### 4.7.7 Meeting Expectations

An important category was that the patient expectations had not been met in their visit to the ED. This patient did not seem to understand why the doctor who saw him was so concerned about his condition and referred him for a cardiology opinion while he was in the ED. This highlights again the importance of effective communication and managing patients' expectations:

- *There was some slight confusion about what was wrong with me. The doctor went a bit OTT I think at one point. (patient 198)*

This patient was very unhappy and later unsurprisingly sought unplanned follow up because she felt she was discharged without a diagnosis and had not had a satisfactory visit to the ED:

- *No I wasn't really happy. I had to wait for ages and they didn't know what was wrong with me and then they sent me home. (patient 157)*

She was clearly dissatisfied with the consultation and ED visit, she felt she was not believed when she told the examining doctor that she could not straighten her knee, and felt let down when she was given expectations which were not met:

- *It would have been good if someone had believed me when I said I could not straighten my knee. I still couldn't straighten it when I went home and if the doctor who said he was going to book the MRI had done I would have had it done by now. Instead it was not booked until I went to clinic and its still 2 weeks away. (patient 157)*

These patients identified their frustration at the differing advice they received and highlights the importance of unambiguous advice throughout a patient's visit. It is also seems likely that patients will remember the advice or opinion of the first person they come into contact with in the ED, and therefore the role of the triage nurse may be very influential:

- *Frustrating - given different advice by all staff - Dr/ESP/Triage ... Really painful, on Brufen, really fed up with it, phoned Spire & went up to them 'can do attitude' choose & book, GP letter & examination - MATS, referred back to BRI NHS - cogs slowly turning. (patient 38)*
- *You know what it is like these days; the wait in the casualty dept was a very long time. There was a very distressed lady in a wheelchair, I had to go and offer her a handkerchief. I thought the doctor I saw was absolutely fantastic,*

*the triage nurse was awful. I was in such pain. She told me I wouldn't get an x-ray because it wasn't an injury. And I did need an x-ray. Actually you (the researcher) were very sincere.*(patient 124)

Although this patient commented that the doctor was 'ok' this did not compensate for his overwhelming feeling of not feeling cared for during his visit.

- *A bit disappointed in wait time. Was a bit disappointed in the wait to me, waited 2 ½ hours. Didn't feel cared for. Felt like cattle in the waiting room. Where we were in a little corridor, it just felt awful - if I was more vulnerable I'd have been annoyed and frightened. No one seemed to care. Some people were getting annoyed about this. I asked for directions and was dismissed. Doctor was ok, very quick, he kept telling me I could go back to work.* (patient 124)

#### 4.7.8 Suggestions for making the experience better.

Six participants gave feedback but only three of them identified areas which they felt could be helpful in increasing their satisfaction with their visit. This patient felt that additional information would have been useful and highlighted the importance of giving additional written information on discharge:

- *Clear instructions very helpful. Could have perhaps been a leaflet about the injury, a self-help section perhaps? I didn't come away from A&E with a leaflet.* (patient 155)

Another patient did not seem to have received an explanation about why their injury was initially treated with a backslab plaster rather than a full plaster, which again highlights the importance of written discharge information:

- *Plaster that is on now much better (completed), gives much more support, would have felt better to have that on earlier - don't know if there is a medical reason to have the white wrap around plaster with a bandage - wasn't explained.* (patient 45)

This patient felt that the service could be improved if instant blood tests were available he was understandably anxious about the results:

- *Just instant results of my blood tests for HIV and hepatitis B.* (patient 56)

In contrast these three patients were happy with their visit and could not think of any suggestions for improvement, although interestingly the first patient was under the



impression that he may not have been seen so quickly if he had not been brought in by ambulance:

- *Think it was fine, seen very quickly, very helpful and informative staff don't know if it would have been different if I hadn't come in by ambulance. (patient 115)*
- *Absolutely everybody was brilliant, it was great - you hear such horror stories about A&E, this was amazing - treatment and care. (patient 109)*
- *I was so grateful they could rule out any problems with my heart- I don't think anything else could have been done. (patient 118)*

#### 4.8 Phase 3 Results

##### 4.8.1 Group 1 (patients who had sought unplanned follow up within 2 weeks of their original ED visit)

22 patients were invited to take part in the focus group. 6 agreed to take part, and a mutually convenient date and time was arranged by telephone. 3 participants attended the focus group

*Table 26: Demographic data of participants in group 1*

Gender	Age	HCP treated by originally
Male	68	Dr
Female	44	ENP
Female	32	ENP

##### 4.8.2 Group 2 (patients who had not sought unplanned follow up within 2 weeks of their original ED visit)

25 patients were invited to take part in the focus group 5 agreed to take part, and a mutually convenient date and time was arranged by telephone. 2 participants attended the focus group.

*Table 27: Demographic data of participants in group 2*

Gender	Age	HCP treated by originally
Male	40	ENP
Female	38	ENP

#### 4.8.3 Group 3 (patients who had planned follow up arranged at the original visit to the ED)

Patients who had been discharged with planned follow up were invited back to a focus group to explore whether this had made a difference to their perception and experience of their initial visit.

8 patients were invited to attend, 3 agreed to take part, and a mutually convenient date and time was arranged by telephone. 1 participant attended, which resulted in this becoming an interview rather than a focus group.

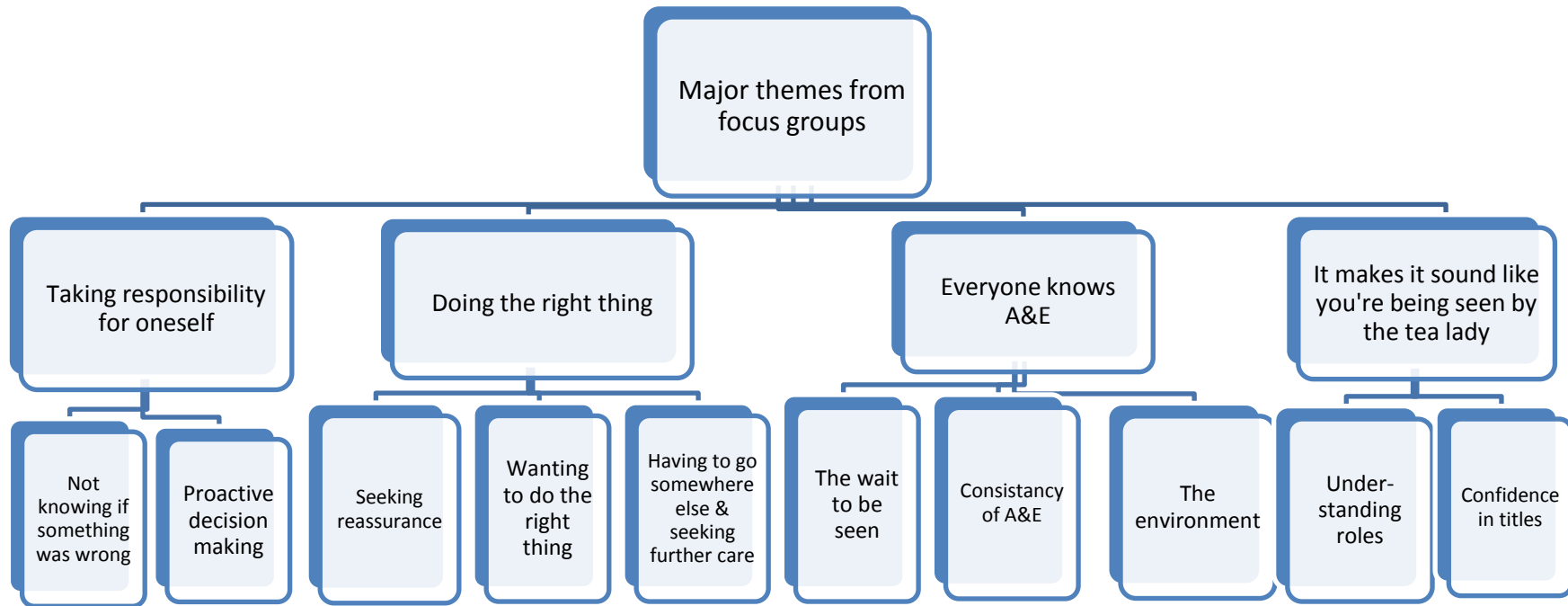
*Table 28: Demographic data of participant in group 3*

Gender	Age	HCP treated by originally
Female	44	ENP

It is of note that of the 6 participants in the focus groups who attended 5 of them had been treated by an ENP.

Four major themes were found which had related sub themes within each group.

Figure 4: Major themes from focus groups



#### 4.9 Theme 1: Taking responsibility for oneself

A strong idea running through all the focus groups was that the respondents had carefully weighed up the reasons for attending the emergency department when coming to a decision about the best place to access healthcare. There were two main sub groups in this theme:

##### 4.9.1 Not knowing if there was something wrong: 'I did not know what I had done'

The participants were clear that they had a specific concern that something might be wrong with them that required treatment; interestingly the issues seemed to fall into two discreet categories: significant pain from the injury or feeling unwell which alerted the patient that something more serious may be wrong or ongoing issues which alerted the patient that something else may be occurring (explored in the sub theme below):

- *I had hurt my foot. As it turned out it was just bruised and sprained, but I twisted it at home, it was pretty sore, and I wasn't sure if I should carry on as normal and ignore it or should I be resting it, I did not quite know what to do for the best. (Female, seen by ENP, No unplanned follow up)*
- *Back in October feeling wretched at home, came in to A&E on Sunday afternoon. (Male, seen by doctor did seek unplanned follow up)*
- *Sometimes you get quite a lot of pain from very minor things and you don't know if there is anything to worry about, it is difficult to judge it. (Female, seen by ENP, did not seek unplanned follow up)*

##### 4.9.2 Proactive decision and taking responsibility for oneself: 'It is my problem'

In this category the patient displayed opinions and behaviours that suggested they took their health seriously and had an expectation of what needed to be done when they attended the ED:

- *I think I probably expected them to examine it and do an x-ray – which is what they did. (Female, seen by an ENP, planned follow up arranged.)*

This patient identified that her problem could have been something more serious, and she thought she needed an x-ray which she knew her GP could not offer her:

- *I only came here because it could have been something else and I wanted to eliminate that. I know the doctor cannot take an x-ray so I think that is one of the things. (Female seen by an ENP, did not seek unplanned follow up)*

This patient describes seeking advice from NHS Direct and how a face to face visit was useful in reassuring him and his partner that she did not have a fracture:

- *I had to bring my partner to A&E when she bashed her knee and at the time she was in quite of lot of pain and I think she dislocated it but it popped back in. She didn't want to go, she was in two minds, she was hobbling around. In the end I said to her she may as well go and get someone to look at it. It swelled up. I think we did actually ring NHS Direct first to see what they felt. It obviously was not broken but her knee cap looked a bit "wonky". But we came and waited only a short while, and had her mind put at rest, an elastic bandage and popped off home. (Male seen by an ENP, did not seek unplanned follow up)*

This patient identified how she was concerned that something more was wrong as her injury was not getting better despite doing all the right things and she was proved correct:

- *I think it was an injury that was not getting better with the things that were recommended and actually the injury I have got is very rare. (Female, seen by an ENP, planned follow up arranged)*

This patient had tried several courses of treatment and her problem was not getting better so she describes proactively taking responsibility for finding out what is wrong with her. These patients also describe a tendency to visit the ED not only in emergent situations but when they feel something is wrong after a period of time and they identify that they require further investigation:

- *I thought OK because it is my problem it needs to be seen to, so I took myself off to A&E on a Saturday morning and was seen to. (Female, seen by an ENP, did seek unplanned follow up)*

#### **4.10 Theme2: Doing the right thing**

This overarching theme again highlighted the complexities associated with the reasoning that the participants had displayed in coming to a decision to attend the emergency department:

#### 4.10.1 Seeking Reassurance: 'I am a bit of a worrier'

In this theme, patients described a personal threshold concerning their injury or illness and once this had been reached then they felt they were justified in seeking help at the ED. This patient highlighted how important it was to seek reassurance face to face:

- *I am a bit of a worrier, but once you have ticked all the boxes for you. It is not just a physical thing it is mental thing. Unlike speaking on the phone and getting advice you are face to face and you can trust them, you are in a good place with lots of equipment. (Female, seen by an ENP, did not seek unplanned follow up)*

This patient again highlighted the importance of seeking help face to face:

- *I think if you go to a GP or any sort of consultant you want re-assurance don't you, they can diagnose what the problem is and give you re-assurance of how they are going to deal with it. That wasn't the case with me though, they said it was a very serious problem but they did not do it as quickly as I wanted it. (Male, seen by a doctor, did seek unplanned follow up)*

Another patient identified how once she had been reassured that her problem was not serious after her visit to the ED then she was happy to seek what she perceived to be a lower level of care from her GP

- *For me it was just checking there was no serious damage and then I realised it was the GPs matter if there was nothing serious. I think just putting my mind at rest there was no damage. (Female, seen by an ENP, did seek unplanned follow up)*

This category also concerned seeking reassurance 'from someone who knew what they were talking about'. This patient highlights how if he suspects that he has a fractured limb he would go to A&E but also he suggests that not knowing what is wrong also warrants an A&E visit in order to seek reassurance:

- *If you have a broken leg or arm, you know it is serious but there is a method that it will be dealt with in A&E there and then. But if you have something else wrong with you and you are not sure what it is you want re-assurance that it is going to be dealt with as quickly as possible. (Male, seen by a doctor, did seek unplanned follow up)*

This participant identified she wanted reassurance that she had not suffered a serious injury and understood that once this had been ruled out that she was happy to go back to her GP for any ongoing issues associated with the injury:

- *I was in a car crash so I came in straight after the accident...for me it was just checking there was no serious damage and then I realised it was the GPs matter if there was nothing serious. I think just putting my mind at rest there was no damage. (Female, seen by an ENP did seek unplanned follow up)*

While this participant was worried that his unknown problem might stop him working in a new job and identified later on that he chose A&E because all the necessary expertise and equipment is located in one place:

- *I had just started back to a new job and I did not know what I had done at the time. My arm swelled up and it was a bit "rashy" as well. I was a bit worried about it, so I thought the best place to come would be here .... I think it is about being equipped. If it was something else I probably would have gone to the drop in centre or my own doctor. As it was swollen, I could have broken it, I bash myself around a lot. I just wanted to be sure. Again it is difficult. I almost knew what it was because I knew what I had been doing but I wanted someone who knew what they were looking at to tell me. (Male, seen by an ENP, did not seek unplanned follow up)*

This patient expressed her surprise that something more serious may be diagnosed when she was initially confident that she would just receive reassurance that everything would settle down:

- *I was quite surprised that I needed a referral to the hand physio. I think that is partly because I was trying to think there was nothing wrong with my hand, that time would not settle it on its own. So although it was re-assuring to know you got an appointment for someone to look at it, I was a little worried that then maybe I had done something more than just a bang to the hand.(Female, seen by an ENP, had planned follow up arranged)*

#### 4.10.2 Wanting to do the right thing: 'Its not like people want to waste anyone's time'

All these patients identified that they felt they needed to defend their decision to visit the ED, because they did not want to be thought of as wasting anyone's time. They appeared to identify a clear rationale for making their visit to the ED:

- *Only came here because it could have been something else and I wanted to eliminate that. I know the doctor cannot take an x-ray .[Female, seen by an ENP, did not seek unplanned follow up]*

This participant seemed to suggest that she felt foolish when her presenting complaint was diagnosed as a minor problem, but she felt strongly that it was understood that she had not intended to waste anyone's time:

- *Mine turned out to be really minor, so in a way what was I doing here. I think it just depends on the sort of experience you have, as once you are here it is not like people want to waste anyone's time.* [Female seen by ENP, no follow up]

The following participant clearly articulates in her account of why she attended the ED that she had taken responsibility for herself and had sought advice about the correct course of action to take:

- *I made initial phone calls and somebody said I could contact my GP who could possibly deal with it. In ringing my GP he in turn said it was an emergency and therefore I thought OK because it is my problem it needs to be seen to, so I took myself off to A&E on a Saturday morning and was seen to.*[Female, seen by a , Dr, sought unplanned follow up]

This participant identifies how despite the best intentions of patients attending the ED, there may be times when they do not make the correct decision as she highlights that patients do not have the same knowledge and skills as the healthcare staff working in ED:

- *But you would want to think there was a purpose to coming and you would think about whether it was the right thing to do and you might not always get that right, obviously given that we don't really know how to assess those things.* [Female, seen by an ENP, no follow up]

Interestingly this participant suggests that he would not want to bother his GP if he met his criteria for attending ED. He also highlights his perceived difficulties in making an appointment with his GP:

- *To get an appointment at the doctor these days is not quite an exact science either; you sometimes think you don't want to bother the doctor unless it is something really worrying, something you cannot explain. I think if I stood on a nail or cut my finger I would come to A&E.* [Male, seen by an ENP, no follow up]

#### 4.10.3 Having to go somewhere else and seeking further care: *'Did not know how extensive the damage would be'*

Patients in this category identified that they had all had to seek further unplanned follow up and/or been referred on for speciality review. This patient identified that the extent of her injury was not apparent or was not identified at the time of her initial visit, although interestingly she still displayed confidence in the HCP who treated her:



- *They saw me and did not know how extensive the damage would be at that time because it takes time to stiffen up. I don't really think they could have done anything different as I just had to wait for the next couple of days to see how it went and then my neck seized up completely so I went to the GP to get more medication and then I was referred to the physio so I don't believe there was anything else they could have done on that day.... There was a plan of what to do and what to expect. [Female, seen by an ENP, sought unplanned follow up]*

This patient's expectations were not managed well, and he identified how he felt his management was changed because of a lack of resources rather than a specialist had advised over the telephone that his condition could be managed on an outpatient basis. His poor experience was compounded by a breakdown in communication which left him feeling as though he had been lost in the system which did not engender confidence in his visit to the ED or the wider health system:

- *They told me initially they would keep me in for 24 hours for intravenous antibiotics. But within 10 – 15 minutes I heard the doctor take a message that xxxxx Hospital had three ambulances waiting and everything from the area would be coming. And then within an hour there were four ambulance crews with their trolleys in the A&E with emergency patients, so the doctor came back an hour and a half later after he diagnosed the problem and said they would send me home with antibiotics but somebody would be in touch with me within 48 hours to come back for further treatment, so that was fair enough. That was on the Sunday afternoon. Feeling wretched, got worse but nobody contacted me so I left it until Thursday and rang and they said OK and they made an appointment for November. Eight weeks was an urgent appointment. So it just went on from there. It was a series of disasters as far as I was concerned. [Male, seen by a doctor, sought unplanned follow up]*

This patient identified that her injury was outside the scope of a physiotherapist and that she needed a referral onwards to a specialist hand surgeon:

- *I went to see a surgeon after I had been seen by the physio because they were concerned that there was some damage to my hand that needed a referral above what a physio could do. [Female, seen by an ENP, planned follow up]*

The following 2 patients were very clear that they did not feel that they needed follow up and that they had identified what they would do and who they would seek follow up with if things did not go as expected:

- *I think I was just advised to rest it. I think they call it RICE and just to be guided by how it felt. There was no need, it was really minor and no need to follow up.*

*If I had had more trouble I would have gone to my GP.*[Female, seen by an ENP, no follow up]

- *I have got exactly what I wanted from my visit and I did not have follow-up. If it has persisted perhaps I would have contacted my doctor to see what he could do to get me physio or something like that.*[Male, seen by an ENP, no follow up]

This patient expressed clear expectations of what she thought should happen in the ED although she did concede that expectations did depend on what was wrong with individuals:

- *I don't think it is unreasonable that I would be able to have everything sorted out. If I come with a life threatening emergency condition I would probably need to be seen by multiple people and equally if I had a puzzling diagnosis then I may need to come back and be re-assessed. I don't think you can have any set expectations as it depends on what is wrong with you and what the treatment is.* .[Female, seen by an ENP, no follow up]

#### **4.11 Theme 3: Everyone knows A&E**

In this overarching theme, participants repeatedly referred to the common thread throughout their responses that of a common understanding of what to expect in A&E, whether it was the acknowledgment that it was seen as a one stop shop where staff had the knowledge, skills and equipment to treat patients immediately or the expected long wait to be seen and the common shared experiences of the waiting room.

##### **4.11.1 The wait to be seen: 'I know it is about the wait'**

Everyone in this theme talked about the wait that a visit to the ED entailed. Interestingly some of the respondents highlighted how short the wait or even total visit was and this they found to be unexpectedly shorter than they thought it would be:

- *I was dealt with efficiently. There was no hanging around.*[Female, seen by an ENP, planned follow up]
- *I was in and out of the department in less than 45 minutes. I think whatever they are doing to improve it is clearly working.*[Female, seen by an ENP, planned follow up]

The following participants demonstrated a pragmatic view of the waiting time they had come to expect when attending the ED and also demonstrated insight into the 'rules' associated with the waiting time:

- *Again with the wait I think it is pointless to say you only expect to see in so many hours. If there is nobody here I would expect to be seen fairly promptly but if there are 15 people all oozing blood in A&E I know I am going to be there for a while.* [Female, seen by an ENP, no follow up]
- *I think it is a bit of a non exact science, you may be waiting in a queue and then a child comes in who needs to be seen before you, you are then going back one. It might be someone in a bit more of a state that you and you have to roll with it, you cannot say "I want to be seen in 45 minutes or assessed right away". You have come here and you take your chances.* [ Male, seen by an ENP, no follow up]
- *I know it is about the wait. I know there is never a good time to come when there is an emergency, but it is about the wait.*[Female, seen by an ENP, unplanned follow up]

#### 4.11.2 Consistency of A&E: Everyone knows A&E

The consistency of the level of care that an ED can offer was an important reason for attending and is an important finding when planning urgent care in health communities. This patient identified that the public do not understand the level of care and investigation offered by urgent care and walk in centres:

- *I don't know if any of these administering parties are giving care of the same standard and also there is the problem of how to get there. Everybody knows the A&E but not everyone knows the new facilities.* [ Female, seen by an ENP, sought unplanned follow up]

This participant made the point that everyone knows the opening hours of an ED i.e.: it is never closed, whereas alternative urgent care provision will have differing opening times depending on their location, day of the week etc:

- *A&E is somewhere you can go and find someone at any time of day and they will advise you the best way they can.*[Male, seen by an ENP, no follow up]

This patient clearly articulated his views about the level of care a walk in centre can provide:

- *I generally accepted that the Walk-in centres can treat you very quickly if it is just a cut or something like that. Obviously if you have anything major like a broken bone then you come to the A&E, but the Walk-in Centre copes with any sort of irritations. [Male, seen by a doctor, sought unplanned follow up]*

This patient summed up succinctly his experience that EDs nationally offer the same level of care in his opinion and this was important to him:

- *For my experience there is definite consistency when you come to A&E. I have always had a similar experience. I have been into A&Es all around the country not just this one, I have been injuring myself in all sorts of places. Usually with bits of stone in my eye! I feel that it is consistent across the board. You get a consistent standard of care and reception across the board. [Male, seen by an ENP, no follow up]*

#### 4.11.3 The environment of the Emergency Department: 'It just feels a bit dirty'

The environment is an important component in contributing to a satisfactory experience, and one of the most challenging to manage successfully because of the high level of traffic through the department. Additionally extensive rebuilding work was taking place during the duration of this study, and this impacted on the patient experience.

- *It just feels a bit dirty. It is probably where it just needs a new paint job or something but I just felt like I was going to get some kind of infection touching anything. [Female, seen by an ENP, sought unplanned follow up]*
- *With the building going on. It does look a bit oppressive at the moment. [Male, seen by a doctor, sought unplanned follow up]*
- *It feels quite clinical. There were drips of water on the bed but that was probably just cleaning stuff. It just needs revamping, which it is having anyway. [Female, seen by an ENP, sought unplanned follow up]*

This patient highlighted the tension which arises when a variety of patients with different presentations have to wait in the same area. This patient suggests that there could be a separation of waiting areas for patient who attend with problems related to alcohol or drug ingestion which raises several ethical dilemmas:

- *Every time I have come into A&E there is always alcoholic types with maybe nowhere to go, and I am not saying you cannot let people in like that, but how do you deal with things like that. Every time you go into hospital there is always shouting in reception and causing trouble. It is a safe place for them and I*

*suppose I would rather they were there as well rather than on the street to be honest.... whether there is a side room where people like that could go! ..., but it is the kind of atmosphere in A&E is always quite oppressive I find and I think just the fact that it is run down and grubby just adds to all of that. I do feel like I am going to get ill going in there. Dirty paper on the floor with blood on.[ Female, seen by an ENP, sought unplanned follow up]*

This participant highlighted his concern that the ED did not have adequate numbers of patient cubicles and that in times of pressure patients were queuing on ambulance trolleys in the corridor outside the ED:

- *As the department is being refurbished at the moment, is there an intention to put more cubicles? I think there was only eight cubicles when I was there. When I was there it was not big enough to cater for the demand. ...it was a normal day when I was there and there certainly were not enough cubicles and hopefully with refurbishment they need to be doubled really so that people are dealt with in more privacy. As it was with people coming in on ambulance trolleys they are just left in the open and people were trying to deal with them in the corridor. No privacy there at all. [ Male, seen by a doctor, sought unplanned follow up]*

#### **4.12 Theme 4: Being seen by the tea lady?**

In this major theme participants expressed uncertainty about the role and scope of practice of the healthcare professional they may be seen and treated by in the ED , they also raised some interesting points about the nomenclature surrounding the different healthcare professional groups particularly around the description on ‘non – medical ‘ roles. This highlighted how the lay person may assume that all healthcare professionals are classified as having a medical background and training and that understandably they do not differentiate between the different professional backgrounds of the treating healthcare professional.

##### **4.12.1 Understanding roles: I would rather have seen a doctor**

This was a very illuminating category when trying to measure the confidence of patients in the healthcare professional who treated them. Patients were asked in the focus groups if they would be happy to be seen by a different healthcare professional from a doctor when they visited the ED. The researcher knew that all but one of them had been treated by an ENP, but the participants had not always been correct in the identification of the healthcare professional they had been treated by, and so some

were under the impression they had been treated by a doctor during their visit to the ED.

This participant thought that nurses were better at dealing with wounds than doctors but made the interesting point that she had more confidence in the treating clinician if they were a doctor rather than a non-medical healthcare professional. She identified that she perceived that doctors had the knowledge and ability to 'fix everything':

- *I think it depends on what problem you have got. On some issues a nurse would be more qualified to deal with it, doctors don't deal with dressing wounds and stuff all the time so it really depends on the issue you come in with. I think if you are really shaken up or something or scared, probably seeing a doctor would re-assure you. Just because we think of doctors as the people who are going to fix everything. [Female, seen by an ENP, sought unplanned follow up]*

This patient was treated by an ENP but believed she had been treated by a doctor. She perceived a doctor to be better qualified to treat her injury:

- *I think I would rather have seen a doctor, I was worried about repercussions later so I wanted the best qualified person to just check that there was no real change. [Female, seen by an ENP, sought unplanned follow up]*

This patient displayed an altruistic view initially and felt that substituting nurses treating patients rather than doctors would save money for the wider NHS, but he went on to show that actually he did not think that this was really a good idea because it may spread more widely throughout the health service although he added the caveat that they could ask for advice from a doctor. This seemed to show that he would not have confidence in the HCP who treated him if they were not a doctor:

- *Well with money being like it is, it may well be that the consultant could be taking a back seat and giving more responsibility to the nurses. I would not like to think that is the general trend. But what we are saying is that if all responsibility is given to the nurses then that might be an on-going trend, I don't think that would be right, if a nurse has got a problem with you, they could always go to a doctor or someone more senior in A&E. [Male, seen by a doctor sought unplanned follow up]*

#### 4.12.2 Confidence in titles and health care professionals: 'That makes you sound like you are being seen by the tea lady or something

In this category the title of the treating healthcare professional was explored by the participants.

When the term non-medical healthcare professional was used, the participants sought clarification and made the observation that the term sounded as though the healthcare professional did not have any medical training. It appears that the term 'medical' had different meanings attached to the term for healthcare professionals and the public:

- *When you say non-medical, obviously they are medically trained.* [Male, seen by an ENP, no unplanned follow up]
- *It is a slightly strange term since you are all medical professionals.* [Female, seen by an ENP, no unplanned follow up]

Interestingly the participant below appeared to have a hierarchy of need and suggested that she would be happy to see a non-medical healthcare professional if she didn't feel it was too serious:

- *Personally I would be quite happy to be seen by anyone that was suitably medically qualified and that would include nurses, physio's, doctors, certainly for the kind of thing I would come in, I did not feel it necessarily required a doctor.* [Female, seen by an ENP, no follow up]

This participant demonstrated an even more sophisticated level of differentiation and acceptability of the HCP seen. He identifies core skills which are important to him such as confidence and competence:

- *I think from my point of view it depends how it was diagnosed. If you feel it is a confident diagnosis it does not matter who is giving that. It is the re-assurance I think. That would not worry me, but if you felt they appeared to be incompetent that is what it comes down to. If they diagnose and treat in a fairly quick manner I do not see any problem.* [Male, seen by a doctor, sought unplanned follow up]

While the following participant displayed a pragmatic approach to the HCP she might see and assumed that they would seek further advice and help if required:

- *I would assume that if I was seen by somebody and they did not quite know they would access advice from somebody more senior.* [Female, seen by an ENP, no follow up]

It is interesting that the participant below seems to suggest that their experience has been that the ED usually only treats patients with minor problems while earlier participants felt the need to justify their reasons for visiting the ED

- *I would be happy to be seen by a nurse or physio. Obviously if it was really serious then they would discuss it with someone else. Most visits to A&E are minor (obviously there are life threatening things), things that can be managed by physio's and paramedics who have the skills. [Male, seen by an ENP, no follow up]*

The following participants have thought carefully about which important characteristics the HCP who treats them needs to display in order to gain their confidence:

- *The way that they communicate with you, in that they can talk about what they are doing while they are doing it. They explain to you what is going to happen, there wasn't any hesitation and gave me re-assurance that they knew what they were talking about and so they answered any questions that I had. I was dealt with very efficiently but not without compassion, so I did feel rushed but there was very clearly "this is what we are going to do, this is what we are doing". It carried on a very slick process so I would say they were very professional in the way they dealt with it and there was the opportunity to ask questions so I was not intimidated, which sometimes you can be rendered speechless by professionals but that did not happen. [Female, seen by an ENP, no follow up]*
- *I am quite happy to see someone who identifies themselves to me. Also it is the people skills. It is the way they relate, it does not matter if they is a consultant or nurse, it is the way they break the news and see the reason why you are here [Female, seen by an ENP, sought unplanned follow up]*

This patient talked about his experiences when being treated at the local walk in centre and how he had made the decision that his injury was only minor so chose to go to a health care provider where he knew that only a nurse would be available, he also found some reassurance in this because he made an assumption that if his injury was more serious than he thought the nurse would not be able to deal with it and would refer him on to the ED:

- *You know there are only nurses dealing with you so it cannot be anything too serious. [Male, seen by a doctor, sought unplanned follow up]*

This patient was actually treated by a male ENP but she clearly identified that she had confidence in him because he was confident and seemed assured in what he was doing as well as appeared to have plenty of time to invest in the consultation:



- *I think it was a doctor. He was very friendly, very courteous. I did not feel like I was being rushed through. He did lots of tests, how my arms moved and stuff. Gave me exercises to go away with. I don't know how senior he was but I got very good service from him. It is nice they way they don't make you feel like they are rushing you as they have obviously got a lot of other patients waiting for them!* [Female, seen by an ENP, sought unplanned follow up]

This patient identified how important it was to them that although the department was busy he did not feel rushed and the treating healthcare professional was very polite:

- *It might well be that they introduced themselves but I can't remember that bit. They were very courteous, very professional, under a lot of pressure at the time. No flapping. They were very courteous, everything was explained .* [Male, seen by a doctor, sought unplanned follow up]

This patient made an important point that although the HCP introduced themselves they did not understand what their professional title meant:

- *I have never understood the staff rankings, so obviously you might look at somebody's badge and they might introduce themselves, but it is difficult to know who it is. I saw a woman who I think was a nurse.* [Female, seen by an ENP, no follow up]

This patient expressed surprise in being treated by a nurse:

- *I think it was a nurse. Again I was surprised, you have mixed experiences in A&E and it is not an exact science.* [Male, seen by an ENP, no follow up]

This patient seemed to have thought about whether it was acceptable to be treated by a non-medical HCP and may have had previous experience as she had a clear rationale for her view point:

- *I think I want to see someone who can do the job so I think there are times when it is not always the case that the doctor has the most knowledge. It would depend on their background, whether they were a fully qualified emergency doctor or whether they were somebody in training and it would depend on what you were going there for, but if I knew there was someone there who had a wealth of experience and they were not a doctor, I would be happy to see them over a doctor. I am very happy with the way I was treated by a non medical person* [Female, seen by an ENP, planned follow up]

This patient placed a great deal of importance in the HCP taking an interest in her husband's medical condition and did not seem perturbed that the paramedics did not

know about the condition, rather she was impressed that they admitted their lack of knowledge and took time to go away to find out more:

- *My partner's condition is very rare and everybody gets very excited. "oh you have got Addison's", but from paramedics who have brought us in they have actually gone away because they did not know about the condition and did not know quite how to deal with it, and sometime someone went away and researched it on the internet and told us they had found out all about it. It showed that they cared to go and do that and be prepared the next time. I thought that was very good. [Female, seen by an ENP, no follow up]*

This patient felt that the different healthcare titles were bewildering and did not tell him who he was being treated by and summed up the variety of titles and experiences of non medical healthcare professionals thus:

- *That makes you sound like you are being seen by the tea lady or something. [Male, seen by an ENP, no follow up]*

#### **4.13 Summary**

In this chapter the results from all 3 phases of the study have been presented. 67% of patients recruited to the first phase of the study were successfully followed up in the second phase of the study two weeks later. 18% (n=24) of patients sought unplanned follow up, with no statistically significant difference between the three types of healthcare professional. Patients sought unplanned follow-up for a variety of reasons which included being concerned about a wrong diagnosis, the need to seek reassurance, requiring a fitness to work certificate and addressing a perceived shortfall in the initial ED visit. The overarching themes from the focus groups were found to be high patient satisfaction, as well as the importance of taking responsibility for oneself, rationalising the reasons for attending ED, the consistency of the service, knowledge and skills which ED provides, and a lack of understanding around the non-medical roles of HCPS in the ED. In the next chapter these will be explored and analysed in more detail.

## **5. Discussion Chapter**

The previous chapter described the results from the three phases of this mixed methods study which set out to examine why patients seek unplanned follow up after treatment in the emergency department, and to explore patients' behaviour, experience and perceptions of emergency healthcare professionals to see if this influenced why a patient decided to seek unplanned follow up. In this chapter the results of the study will be analysed and discussed in more detail.

### **5.1 Summary of results**

The findings of the study showed that 18% of patients who had been seen initially in the ED sought unplanned follow up in the next two weeks. There was no statistical relationship found between the healthcare professional who treated the patient in the ED and whether they sought unplanned follow up. However patients who had been treated by a doctor had the highest unplanned follow up rate (21%) while patients treated by an ENP had the lowest unplanned follow up rate (ENP 16%, ESP 17%).

ENPs also had the lowest planned follow up rate in the patients they treated at 42%, while again doctors were found to organise the highest amount of planned follow-up for the patients they saw in the ED (Drs 48%, ESPs 47%).

Overall when planned and unplanned follow rates were combined by professional group it was found that doctors had the highest combined follow up rate at 63%, while ENPs and ESPs both had a combined follow up rate of 54%.

Content analysis from the telephone interviews in phase 2 of the study showed that the main themes found suggested that patients sought unplanned follow up after their initial visit to the ED because of:

- Concern about a wrong diagnosis
- An issue which could have been addressed at the initial ED visit
- The need to seek reassurance
- Requiring a medical certification of sickness

When patient satisfaction was explored in the same telephone interview, 4 main themes were detected:

- Issues around the length of time waiting to be seen
- Identifying positive characteristics of the HCP seen
- Managing expectations
- Making the experience better

In the third phase of the study the main themes from the focus groups were:

- Taking responsibility for oneself
  - Not knowing if something was wrong
  - Proactive decision making
- Doing the right thing
  - Seeking reassurance
  - Wanting to do the right thing
  - Seeking further care
- Everyone knows A&E
  - The wait to be seen
  - Consistency of A&E
  - The environment
- It makes it sound like you're being seen by the tea lady (HCP titles)
  - Understanding different roles
  - Confidence in titles

## **5.2 Unplanned and planned follow up rates**

There is still very little evidence about why patients seek unplanned follow up having been treated in an ED, although some emerging international evidence is beginning to report unplanned follow up rates, usually within 72 hours of discharge (Goldman et al 2006; Van der Lindon et al 2010; Dinh et al 2012). This study set out to examine what the frequency of unplanned follow up was and also explores the reasons why patients chose to seek unplanned follow up. A previous study by McClellan et al (2013) had suggested that a reduced confidence of patients in the non-medical health care professional, specifically ENPs, may be one of the underlying reasons. However the findings from this study refute this possibility. In this thesis the unplanned follow up rate was 18% of the study's population. However, this is a similar rate to the findings of Cooper et al (2002) who found an unplanned follow up rate of 21.5% for patients

seen by SHOs and a 18.3% rate for ENPs. This is higher than other studies. McClellan et al (2013) found that 13.2% of all patients sought a GP review within 2 weeks of their initial visit to the ED, whereas the earliest study comparing the unplanned follow up rates of ENPs and SHOs found a lower rate of 13.1% for patients seen by a SHO and only 8.6% for patients seen by ENPs (Sakr et al 1999). Whiticar et al (2008) in their UK based audit found only a 2%, 2.3% and 2.8% ED return rate for patients seen by ENPs, middle grade doctors and SHOs respectively. The difficulty arises when attempting to compare these international and specific population based figures (paediatric versus adult versus mixed ED attendances). The heterogeneity of the populations described mean that no reliable conclusions can be drawn. Many of the studies only measured unplanned returns to the ED, whereas Cooper et al (2002) and McClellan et al (2013) measured the more meaningful figure of unplanned reattendance to all providers including primary care.

Interestingly there is even less literature reporting planned follow up rates of patients discharged from the ED. In Cole & Ramirez study (2000) the planned follow up rate was 50%, where all patients were referred to primary care for follow up. McClellan et al (2013) found that the planned follow up rate for specific orthopaedic follow up was 7.3% for the ENP group, 5.6% for patients seen by a doctor and 4.8% for the ESP group. However these figures need to be interpreted with caution as they describe small patient numbers treated by these professional groups. It is also important to take account of the patient case mix that has been included in the comparison and evaluation of different professional groups in the ED. McClellan et al (2013) looked only at patients attending with soft issue injuries; those with fractures and wounds were excluded. The patient population examined by Cooper et al (2002) included only patients presenting with minor injuries (e.g. soft tissue injuries, minor head injuries, ankle/foot, wrist/hand fractures). Sakr et al's (2003) patient population again included only minor injury presentations. This thesis recruited participants with a wide variety of presentation types, which included patient groups that may be at higher risk of re-attendance such as patients presenting with undifferentiated chest pain and abdominal pain (Milbrett and Halm 2009). This study therefore represents the growing reality of the expansion in non-medical professionals' scope of practice. The findings also represent the associated unplanned follow up rates for a much broader range of patient

presentations to the ED. It is important to understand the international context of studies which explore unplanned follow up, as differences in healthcare provision and how health care services are funded, will influence the health seeking behaviours of patients (Decker 2009). What other UK studies have not explored is the unplanned follow up rate (to primary and secondary care) in this broader scope of HCP practice.

It has been argued previously that ENPs may not be confident in managing injuries and interpreting x-ray findings, and this may result in less confident discharge dispositions for the patients who are treated by this professional group (Van der Linden et al 2010). This in turn would be reflected in a more conservative and cautious discharge decision represented by a higher planned follow up rate when compared with medical colleagues and ESPs (McClellan et al 2013). The findings of this thesis do not confirm this assumption. ENPs were found to have the lowest planned follow up rates (42%) compared to their ESP (47%) and medical colleagues (48%). Overall when planned and unplanned follow rates were combined; doctors had the highest combined follow up rate at 63%, while non-medical professional groups were equal; with ENPs and ESPs both found to have a combined follow up rate of 54%.

These findings suggest that alongside the lowest unplanned follow up rates for their patients (ENP 16%, ESP 17% Drs 21%) ENPs are in fact highly confident in their management, and discharge patients appropriately from the ED. Another important consideration is that while the medical staff in this study comprised a range of senior and junior medical staff (from Core Trainee year 1 to Consultant) by far the majority of treating doctors in this group were junior doctors who rotate through the ED every 4 months. By contrast the ENPs and ESPs are permanent members of the ED team and their lower unplanned and planned return rates may reflect their greater experience and familiarity with disease and injury outcomes in this specialty. The rates of planned follow up are difficult to comment on as there is a paucity of available literature with which to compare these rates within emergency care. These relatively high planned follow up rates may be indicative of the risk and uncertainty that HCPs are trying to manage in emergency care (Pearson et al 1995).

### **5.3 Why patients sought unplanned follow up**

Previous UK studies have not explored the reasons why patients have sought unplanned follow up. Again there have been hypotheses suggested; that patients were not confident in the healthcare professional they saw, particularly if they thought they had not seen a doctor and therefore felt the need to get a second opinion (McClellan et al 2013). However the findings from this study showed that this was not the case.

The most common reason for seeking unplanned follow up was to seek reassurance that their injury or illness was getting better and that the initial diagnosis had not been incorrect. Identifying concerns and managing patient perceptions was an important factor in addressing issues which participants felt could have been dealt with at their initial visit. Findings from the telephone interviews as well as the focus groups found that patients sought reassurance when they thought something was wrong, or not going to plan, or taking longer than they expected to heal. There will always be a small percentage of patients who should seek unplanned follow up, because their symptoms worsen despite appropriate initial management, and this is reflected in the national clinical indicator for unplanned returns which is set between 1-5% and not less than 1% of the total ED attendances. A return rate of zero would suggest an over cautious approach to the management of patients, perhaps through clinicians over-investigating, admitting patients who do not require this or arranging planned review and follow up appointments for all patients regardless of their need, resulting in an increased financial burden on the health economy as well as exposing patients to the potential unwanted side effects of investigations such as exposure to unnecessary x-rays (Katz et al 2005).

Some patients were concerned that a wound had become infected or that a soft tissue injury was taking longer to heal than they had expected. This would suggest that an important part of the treating clinician's role in the ED is to manage the patient's expectations regarding their injury or illness progress, and outlining what would not be expected and when specifically they should seek further help. This is a finding supported by Nunez et al (2006); their study found that prognostic errors were the main factor associated with unplanned returns to their ED. Boundreaux and O'Hea (2004) discovered that patients required more information than simply a diagnosis in

the ED; they found that patients wanted to know what the diagnosis meant to them as well as the impact on their lives. This would suggest that patients being discharged from the ED would value specific advice about the trajectory of their illness or disease, and discussion of specific indications for seeking further help in order to give them guidance about what to expect. Welch (2010) also suggested that in the majority of cases when a patient believed they have been misdiagnosed in the ED further exploration found that it was more likely to be a communication error such as differing terminology used by the HCPs to describe the same diagnosis.

An important reason for seeking further unplanned follow up was what subsequently became clear as a wrong diagnosis (an initial diagnosis of a soft tissue injury actually turned out to be a septic arthritis, requiring an inpatient admission and surgical intervention; this patient had been seen by a junior doctor), on-going pain and symptoms, and for one patient the lack of a diagnosis. Mis-diagnosis is inevitable from time to time, and is a legitimate cause for unplanned follow-up. Diagnostic error can be reduced through appropriate education, the implementation of robust governance structures and learning from errors, but can never be totally eradicated (Graber et al 2002). Nunez et al (2006) reported a 20% diagnostic error rate in patients who had unplanned returns to the ED. Whilst this might vary between healthcare professionals, previous studies have shown that ENPs are safe and clinically effective. This thesis did not set out to compare the frequency of mis-diagnosis between professional groups, and recruited insufficient patients to do so.

Arguably all of these issues should have been addressed at the initial ED visit, and demonstrates why consultant 'sign off' of high risk presentations (such as patients presenting with chest pain and feverish infants) has been introduced as a speciality specific standard by the College of Emergency Medicine in order to increase patient safety in this high risk speciality. It is noteworthy that only one of these attendances would have been identified by the ED because the patient returned to the same ED. It is unlikely that any of the other unplanned attendances would have been identified because the patients sought follow up with other healthcare providers (another hospital, GP, private healthcare). This is an important point to consider for commissioners of care as the opportunity to share information and receive formal



feedback from other healthcare providers would contribute to clinical learning as well as understanding when processes may not be effective. The findings of this study also highlight a potential weakness in the DH clinical quality indicator which measures unplanned re-attendance (CEM 2011). This centrally reported quality indicator currently measures unplanned re-attendance to the ED at which the patient initially presented. While an assumption may be made that the number of patients seeking unplanned follow up at a different ED or with a different urgent care provider is small, the findings of this study show that 18% of patients sought unplanned follow up with a variety of health care providers with only 1 of the participants returning to the original ED in which they were treated. This suggests that the true significance of unplanned attendance rates will be not be captured by the current clinical quality indicator.

Four of the patients sought unplanned follow up in order to request a 'sick note' or fitness to work note. There is a legislative anomaly in that only medical staff can sign a fitness to work note. Despite non-medical healthcare professionals being able to independently assess, examine, investigate and make a differential diagnosis as well as independently prescribe, currently the law does not allow a non-medical healthcare professional to give their professional opinion as to whether a patient is deemed fit to work or requires time away from work. Usually self-certification for 7 days is all that is required for patients discharged from the ED with minor conditions, and if a longer time away from work is required then the doctor to whom the patient has been referred for planned follow up should sign a 'fitness to work' note. However as in two out of three of these cases, if the patient has been referred to another non-medical healthcare professional, such as a physiotherapist, for planned review then this necessitates the patient having to make another appointment to see their GP in order to get a fitness certificate. This process creates an additional unnecessary financial burden both for the patient and the local health community.

One patient sought unplanned review with an emergency dentist because of on-going pain despite receiving initial treatment and pain relief in the ED. White et al (2006) found that a pain related diagnosis comprised five of the top eight reasons for unplanned return visits within 72 hours of initial presentation to their ED, with a high number of patients presenting with dental pain. This highlights the importance of

discharging patients with simple but effective pain management plans as well as appropriate analgesia. It is important to also alert patients that on-going or worsening pain despite appropriate analgesia is an important indicator that their condition warrants further assessment. Pain can be an important indication that further help is required, and is a justifiable reason for making an unplanned return to the ED (Kelly 2000). It was reassuring to find that only 2 patients in the study highlighted that on-going pain was the primary reason for them seeking unplanned follow up, suggesting that pain and the underlying cause was adequately addressed at the initial ED visit for the majority of patients.

#### **5.4 Identification of the treating healthcare professional**

19% of patients were found to be unable to correctly identify the healthcare professional they had been treated by in the ED when asked during the exit survey. This occurred despite the fact that it is a part of routine care for all healthcare professionals to introduce themselves by name and job title to all patients. Two weeks later the number of patients who were unable to correctly identify the healthcare professional had increased to 27%.

Fishers exact test found that there was a statistically significant relationship between the gender of the treating healthcare professional and the patient's perception of their professional role if the treating healthcare professional was an ENP or doctor. If the treating healthcare professional was female then the patient was more likely to think the treating healthcare professional was a nurse, and if they were male, the patient was more likely to think they were a doctor. This finding was replicated in Horman et al's (1987) small study which asked healthcare professionals to identify the professional background of four videoed primary care consultations: 68% of the participants wrongly believed that the female doctor was in fact a nurse practitioner.

Horman et al (1987) suggest that professional groups may be identified by patients as well as other healthcare professionals by the implicit professional characteristics assigned to them and believed to be typical of the professional group. These characteristics may include personality traits, behaviours, or physical characteristics such as age or gender. Sweet & Norman (1995) goes as far as to suggest that:

'Patriarchy can be seen in the doctor-nurse relationship by drawing parallels between the husband and wife in the family, with the nurse looking after the physical and emotional environment, while the doctor decided what the really important work was, and how it was to be done' (Sweet & Norman 1995: 166).

As a consequence of this accepted practice Landman & Manis (1983) propose that professional identification has become stereotypical. The image of nursing is intrinsically linked to its predominately female composition (Mauksch & Campbell 1985). Equally the image of medicine is also influenced by gender-linked stereotypes. Historically medicine as a profession has been male dominated (Claven & Robak 1980), and although there is now a recognised gender shift in medicine with more than 50% of medical students entering medical school now being female (Mc Kinstry 2008), the persistence of deeply instilled gender stereotypical thinking seems difficult to break.

This study showed that, despite it being part of the routine care in the ED for all healthcare professionals to introduce themselves to patients at the beginning of the consultation and wear an identification badge with their name and occupational title, a quarter of participants in this study could not correctly identify the healthcare professional who treated them.

Historically doctors would have worn white coats to identify themselves and patients were very used to identifying the accepted 'uniform' of each profession: white coats for doctors and dresses for nurses with physiotherapists adopting a uniform of navy trousers and a white tunic. It has been long been accepted in healthcare that uniforms consciously and unconsciously reveal (or even serve to conceal) the status of the individual (Joseph 1986). Key themes in the literature around uniform and identity consider the importance attached to a uniform in terms of patients and other healthcare professionals being able to identify an individual's occupational seniority (Dolan 1973; Blumhagen 1979; Tiffany and Sparrow 1987; Davies 1995). Historically the use of uniform accessories also gave recognition to the individual, conferring additional professional status on them, such as the buckle and belt worn by qualified nurses and the hats worn by more senior nurses and matrons which gave the impression of seniority to others. The stethoscope, seen as a medical tool, was traditionally only worn by the medical professional along with a white coat, which

became a symbol of authority within the profession. (Dolan 1973; Szasz 1982; Tiffany and Sparrow 1987). In more recent times concerns about infection control have meant that the white coat has been eradicated from NHS hospitals, and the majority of healthcare professionals now wear unisex “scrubs” of various colours, arguably making a uniform less of a status symbol for a specifically identifiable professional group.

It could be argued that the results of this study show that patients now have to rely on other cues to identify who is treating them. Characteristics such as professional confidence, language and effective communication styles as well as the ability of the patient to form a positive impression of the healthcare professional and their advice, were shown in this study to influence who the patient thought they had been treated by (Redsell et al 2007). This will be explored in more depth later. However, it is supported by the fact that the majority of the patients who incorrectly identified the healthcare professional who had treated them identified a non medical healthcare professional as a doctor.

## **5.5 Time of attendance**

This study included patients treated ‘out of hours’. This may be associated with an increased risk of patients seeking further care (Milbrett and Halm, 2009). Alternatively or it could be speculated that an increased rate of planned follow up may be arranged for patients who attend out of hours as a safety net because there is less access to senior advice than during office hours of Monday to Friday 9-5pm. It is possible that inexperienced clinicians discharging patients during these times may be more risk averse, and as a consequence planned and/or unplanned follow up rates might be higher. This study specifically looked at this area of care which has not been previously reported in the UK general ED literature, and found that patients were no more likely to seek unplanned follow up if they attended out of hours.

In addition, patients attending out of hours had a very similar planned follow up rate to those patients who attended in office hours (46% in hours, 50% out of hours Monday to Friday and 40% at weekends).

There was no statistical relationship found between the time of presentation and whether patients went on to seek unplanned follow up; this suggests that in this study

a patient attending the ED out of hours was no more likely to seek unplanned follow up than a patient who attended in 'office hours'. Interestingly this is not a finding replicated in the small evidence base investigating this aspect of care. Goldman et al (2006) found that paediatric patients attending the ED between 8pm and midnight were more likely to return. They attributed this to the increased numbers of patients attending out of hours leading to limited time for patient and family education and information giving as well as a decrease in staffing overnight. This is an aspect of care which needs further investigation in the UK.

## **5.6 Patient characteristics**

Participants recruited to this study were not admitted to hospital and were all discharged home. The ED in which they were recruited serves only adults from the age of 16 years old. A relatively even split of female (n= 85) and male (115) participants was recruited, suggesting that the researcher had been successful in avoiding gender bias within the study. The mean age of both female and male participants recruited was 35 years old, with participants recruited from a similar age range (women 16-83 years and men 16- 84 years). An interesting finding was that both the doctor and ENP professional groups treated broadly similar age ranges and numbers of patients in each age group while the ESP group treated a younger patient profile with 93% of their patients found to be under 45 years old in this study. This finding may be attributable to the more defined scope of practice of the ESP role in the ED, or it may reflect the fact that older participants were recruited more often 'out of hours' when the ESP was not on duty in the ED as well as the fact that the ESP group of participants comprised very small numbers when compared with the other two professional groups.

An additional finding of note was that the majority of participants recruited to the study presented to the ED with an injury (84% n= 168) rather than an illness (16% n= 32). This may represent a recruitment bias on the part of the researcher, as this does not represent a true profile of the patient profile of the ED at 'minors'. This finding may be attributable to the recruitment process as patients who attend with an injury may be easier to track through the ED, and their episode may be shorter than that of a patient who presents with an 'illness' who may require additional investigations.

## **5.7 Findings from focus groups**

### **5.7.1 Exploration of patients behaviours and perceptions of their ED experience**

With so many choices available to patients when seeking urgent or emergency care, there is nevertheless an underlying assumption that patients can and should make an accurate assessment of the level of care that they will require. This seems to be an unfair expectation, especially as patient responses in this theme related to not knowing the extent of their injury or illness. This was echoed in subsequent themes around; 'taking responsibility for oneself' and 'seeking reassurance' as well as 'wanting to do the right thing'. These findings outline the rationale behind a patient's decision to attend the ED. Patients did not appear to take their decision lightly, and a clear sequence of events had occurred before they attended the ED. Either the patient sought help and advice from another healthcare source, such as NHS Direct, or the participant identified that there may be something more serious going on which would necessitate a more intensive level of investigation or treatment than they thought their GP could offer them. It would seem that previous experience of health care providers and the level of expertise offered influenced the judgement of patients in deciding where and at what level they needed to access healthcare (Salisbury et al 2002; Bengler & Jones 2008; , Healthcare Commission 2008; Knowles et al 2011). This level of judgement described by the patients highlighted an additional factor in a subsequent theme which was that of the consistency of the care offered by the ED no matter where you are in the UK. The Next Stage Review (DH 2008b) highlighted the need to reduce the variation in the quality of care provided in the NHS. Knowles et al (2011) found high levels of satisfaction with ED services and suggested that important reasons for this were that access to these services do not require an appointment, are available 24 hours a day and are long established services familiar to the general population, as well as the fact that the '4 hour target' means that patients can expect to spend no more than 4 hours in the ED.

Considered decision making in attending the ED was an interesting observation in participants. They used their previous experience of the urgent and emergency care system to ascertain whether they needed to visit the ED with their presenting

problem. A clear view was that the services, resources as well as the level of knowledge and skills provided by an ED was constant, whereas services offered in urgent care centres or minor injury units were more limited, for example no or limited access to investigations such as radiology. The skills offered by non ED services were seen as variable and person-dependent, for example the ability to close a more complicated wound with sutures rather than having to be referred onto another service. Muller et al (2012) explored why 'minor' patients preferentially chose to visit the ED during office hours rather than their GP and reported that 39% of patients reported that they had greater confidence in the ED because they felt the ED could help them better than their primary care provider, and additionally that the ED had more effective infrastructure in order to treat their presenting problem. These findings are echoed by Burnett & Grover (1996) who reported that patients interviewed believed that the ED was the best place for them to receive care for their injury or illness and Thomson et al (1995) who discovered that 59% of self-referred patients perceived that their GP's inability to be able to treat their problem was the most important reason for them attending the ED. One participant in this study highlighted that he had in effect triaged his own problem and while on a previous occasion he knew it was only a minor cut which he knew the local walk in centre could deal with because they 'only had nurses working there' on this occasion he felt the problem was more serious and chose to come to the ED.

#### 5.7.2 The wait to be seen

In the telephone interviews, fifty-four patients commented on the waiting time; both positively and negatively. In fact even those who commented on how long they had to wait displayed an acceptance that this was simply part of the visit to ED and was just part of the experience. Interestingly none of the participants commented on the '4 hour' target and whether they felt they had waited longer than 4 hours. There may be a misconception among ED staff that ED attendances have risen because patients are now aware that they should be seen and discharged within 4 hours (Carson et al 2012). It is of note that Boudreaux et al (2004) found that actual waiting times are unimportant in determining patient satisfaction with their experience of EDs. Rather the patient's subjective experience of their waiting time was a key factor, based on

whether this was consistent with their expectations. This was echoed in this thesis, where several participants commented that in relation to the time they had waited they would have expected their treating HCP to have spent more time with them. Interestingly a small number of participants commented that an estimation of their waiting time would have been helpful. Managing patients' perceptions about waiting times by giving an initial over- rather than under-estimation of potential waiting time has been shown to increase patient satisfaction rates (Taylor and Bengner 2003). One of the national clinical quality indicators may specifically help to address this issue in future evaluations of patient satisfaction (50% of patients should be seen by a discharge capable clinician within an hour of attendance; CEM 2010).

The remaining themes emerging from the focus groups ('understanding roles' and 'confidence in titles and the healthcare professional') were key in exploring two concepts: the perceived confidence of the healthcare professional and the patient's confidence in the healthcare professional.

### 5.7.3 Confidence In the healthcare professional

In this study there was a high level of satisfaction and confidence cited in the HCP treating the participants. The participants emphasised the importance of the HCP's effective communication skills in both phase 2 and phase 3 of the study, and this seemed to make an important contribution to a patient's satisfactory experience of the ED consultation; so much so that the patient who subsequently sought unplanned follow up because of an initial misdiagnosis reported satisfaction and confidence in the HCP who had treated them initially. It seems plausible to suggest that effective communication is one of the most important issues in contributing to a patient's positive experience. There is considerable evidence which indicates that female HCPs generally tend to conduct longer consultations, give more information, engage in more partnership building, are less directive, and are more explicitly reassuring and encouraging than male HCPs (Hall et al 1994; Bertakis et al 1995; Hall & Roter 1998; Roter & Hall 2001). Street (2002) suggests that male and female HCPs tend to favour different styles in communicating with their patients because of different consultation aims. He suggests that females communicate with the aim of building rapport and establishing a professional relationship based on partnership working, whilst men are



observed to talk as a means of establishing status and independence and have been found to spend more time offering advice and expressing opinions within the consultation (Elderkin-Thompson and Waitzkin 1999). Derose et al (2001) concluded that in an ED, female patients reported higher satisfaction levels when seen by a female ED doctor.

Preferences for a female doctor cited in the literature appear to be related to the use of a more patient centred consultation style, which patients suggested to them meant that the female doctor was more attentive, gave more information and showed more sympathy (Meeuwesen et al 1991). These communication characteristics may be associated with gender role stereotypes and with society's belief that men are socialised to be technically competent while women are socialised to be humane (Bem 1981). While communication skills and style are important to patients, Janssen & Lagro-Janssen (2012) discovered that knowledge and clinical competence was as important to female patients in their study as the effective interpersonal skills of their doctor.

It has been suggested that the majority of patients are unable to assess their HCP's technical competence (Mechanic and Meyer 2000), and so use alternative proxy measurements of how highly they rate their confidence in their treating HCP. Mechanic and Meyer (2000) found that patients referred to technical competence by measuring their doctor's behaviours through experience, thoroughness and knowledge. The concept of interpersonal competence describes specific skills witnessed in a HCP's interactions with a patient (Roter & Hall 1993). Highly rated behaviours associated with interpersonal competence are: listening, caring, concern and compassion. These behaviours are associated with female HCP consultation approaches in the literature and were highlighted in the focus groups as being rated highly by participants in this thesis.

Sandu et al (2009) found in their observation of ED consultations that ENPs and GPs adopted consultation skills which included providing more education and counselling to patients than their SHO and middle grade doctor counterparts. However SHOs were found to check their patients understanding more frequently and the authors argued that this demonstrated a more participatory approach to the HCP and patient

relationship. The gender of the ENP and SHO professional groups were fairly evenly split and therefore conclusions based on a gender bias towards a particular consultation style cannot be drawn. In this study the majority of ENPs were female and one explanation for the mis-identification of ENPs as doctors could be due to the high interpersonal competence of the ENPs because of the participatory consultation skills they adopt which in turn engendered trust and confidence in their patients.

#### 5.7.4 Confidence of the practitioner

Non-medical healthcare professionals in the ED have gained confidence in their roles, and are now well established practitioners. In this study it was found that 20% of patients incorrectly thought that they had been treated by a doctor rather than an ENP (irrespective of whether the ENP was male or female). Interestingly the incorrect identification of the treating doctor as an ENP, while infrequent, was associated with only female doctors in this study. Gender stereotyping does seem to have had an effect on whether patients could correctly identify the HCP who treated them (Jinks and Bradley 2004). However, it seems that other factors are also involved. It is plausible that the consultation styles which ENPs adopt are associated with characteristically female traits; which in turn have been rated by patients as being associated with greater interpersonal competence. This study showed that high levels of interpersonal competence seem to be related to positive traits identified by patients in their treating HCP.

As nurse practitioners have become more established as part of the healthcare delivery team they have grown in professional confidence. This thesis would suggest that ENPs and ESPs are developing their own professional identity which may overlap in parts with their nursing, physiotherapist and medical colleagues.

#### 5.7.5 Patient perceptions of HCP roles and titles

This study also found that despite patients being very satisfied with treatment no matter who they had seen, they still had an underlying wish to be seen by a doctor rather than non-medical HCP. It is plausible to suggest that this may be because they do not understand the experience, education and professional knowledge that a well-

established role such as an ENP is required to possess in order to make safe professional judgements about a patient's care. Joel and Kelly (2002) suggest that the traditional model of nurse-doctor relationships proposes that nurses and doctors are members of two different professions with their own specific and specialised expertise and responsibilities. Content analysis suggests that patient's trust and confidence in their HCP are related to interpersonal competence. This finding was reflected in Redsell et al's (2006) study where participants perceived the GP role as having greater skills, knowledge and authority and higher status, whereas nurse roles were perceived to be based on carrying out delegated tasks. The findings from the focus groups in this study were that participants found the term 'non-medical' confusing and associated this term with a lack of 'medical' training and understandably this confusion about roles and titles seemed to influence their ideal choice of treating HCP. The results of this study suggest that traditional gender stereotyping seemed to strongly influence whether the participant thought the professional treating them was a doctor or ENP, and despite expressing a preference to see a doctor rather than non-medical HCP they could not always correctly identify the HCP who treated them.

Redsell et al (2006) found that patients interviewed in primary care reported that they were left feeling uncertain about the competence and authority of new roles (such as nurse practitioners) where nurses were seen to be forging a new identity resulting in a hybrid between nurse and GP. Participants expressed uncertainty in understanding role titles and the blurring of traditional boundaries. This finding was reflected in the work of Chapple et al (2000). Their interviews of patients in primary care found that patients constructed the nurse practitioner's new identity partly as a result of experiences gleaned from interaction with other people's beliefs and experiences, as a result of their experience of using the service, and partly from traditional beliefs of medicine and nursing. Interestingly it was found that participants attributed the status of doctor to the nurse practitioner and believed that the nurse had also trained as a doctor. Chapple et al (2000) suggested that this was because the professional dominance of medicine still holds considerable influence over the lay public, however they also concluded that patients' experience of using the 'new' services were important factors in the acceptance, legitimatisation and construction of new professional roles and identities in the public's understanding.

Some participants in the focus groups initially demonstrated an altruistic view when asked if they had a preference as to which HCP should treat them in the ED, and cited reasons which reflected the findings of Corbett & McGuigan (2008). The reasons identified included; saving money, freeing up the time of medical staff so they could see more seriously injured or ill patients and reducing waiting times for themselves and others. However, later on in the focus groups participants revealed other feelings when they suggested that consulting a non-medical HCP would be acceptable if their issue was minor or connected with a wound or dressing as 'nurses are good at that kind of thing'. From these comments it might be inferred that participants actually viewed a consultation with a non-medical HCP as inferior to that with a doctor even though they may have cited a high level of confidence in the HCP who treated them in this study (and incorrectly identified them as a doctor). This suggests that the professional identify of the treating clinician has become confusing to patients. Interestingly while as HCP we believe patients have accepted these roles because non-medical HCPs infrequently encounter patients declining to be treated by them, Larkin & Hooker (2010) suggest that role substitution has been covert in emergency care and has led to confusion and ambiguity for patients in terms of role titles and remit.

#### 5.7.6 Role substitution

Interprofessional working in emergency care has developed at a fast pace over the last decade, principally because of the need to address workforce issues in the ED. An operational definition of interprofessional working was presented in chapter two (p18). This definition builds upon the educational foundations from which the concepts of interprofessional education and learning have developed. The implementation of roles such as ENPs and to some extent ESPs are well established in delivering aspects of emergency care. Although this study does show a considerable lag in patient understanding of these newer roles, they seem to a large extent to have unwittingly accepted them by continuing to display confidence in the healthcare professional who treats them. It is concerning that a policy agenda concerned with the development of interprofessional working as a model of care does not also address the important associated issue of publicising these new roles to the general public, so they may make an informed choice.

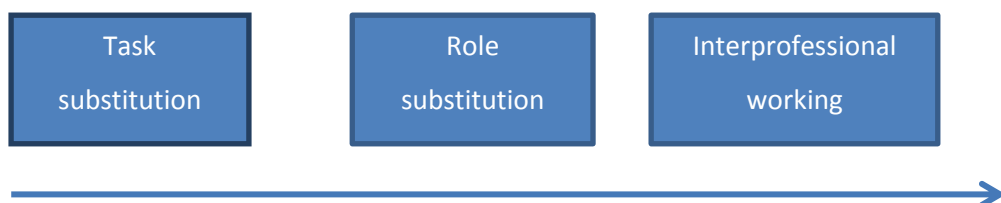
The issues surrounding professionalism and professional identity are closely associated with an emerging theoretical framework of interprofessional working. Salhani and Coulter (2009) suggest that the idea of interprofessional collaboration means that professional boundaries between healthcare professionals should be, and are, flexible. This implies that an interprofessional approach means that the traditional characteristics of professions (autonomy, codification of knowledge, professional values and boundaries, (Abbott 1988; Freidson 1988), professional jurisdiction and identity, self regulation and professional territorialism (Axelsson & Axelsson 2009)) are challenged by this approach to working. A consequence of this is not only potential confusion for other healthcare professionals but also, as this study's findings suggest confusion and unconscious acceptance for patients.

#### 5.7.7 Task and role substitution

Task substitution is defined as '*allocation of clinical responsibilities to lesser or more narrowly trained health care professionals with or without medical supervision*' (Yong 2006:27). Task substitution directly contributes to role substitution when aspects of a previously defined role are undertaken by another professional, usually a non medical practitioner. It could be argued that aspects of task and role substitution have been informally embedded within the NHS for many years. For example, as nurses contribute to a 24 hour working shift pattern and allied healthcare professions usually do not, many nurses are expected to take on elements of allied healthcare professionals' work such as physiotherapy tasks out of hours and at weekends. It is also interesting to note that task and role substitution is associated with negative descriptors within the literature, while generally interprofessional working is associated with positive descriptions. Arguably, the foundation of this finding may be in the traditional characteristics surrounding professional identity, particularly in health (Baxter & Brumfitt 2008) where professional groupings, allegiances and underlying philosophical approaches have been identified to be very important to individual health professionals. Thus being seen to 'substitute' for aspects of a different professional role is perceived to be an inferior or less worthy characteristic of a professional group.

Pollard (2010) suggests that one of the most important features of successful projects which address new ways of delivering a service is one in which a profession takes on and incorporates the tasks of a different professional group. There now appears to be a general acceptance of the ENP role within emergency care (Benger & Hoskins 2005, Carter & Chochinov 2007), most importantly by medical colleagues (in terms of encroaching on the traditional medical boundaries of minor injury care). With the expansion in scope has come the ability for ENPs to develop skills to see the more ‘unpopular’ patient presentations, and this may be part of the reason why role expansion has now been accepted with relatively little ongoing resistance from medical colleagues. Incongruously, ENPs are now experiencing a reversal in roles with an expectation and requirement that they will teach junior doctors about the management of minor injuries and illness. Adapting Headrick et al’s (1988) concept of a spectrum of interprofessional activity and professional identity, it could be argued that the similar concept of a spectrum of activity can be applied to the range of healthcare roles from task substitution to interprofessional working (with role substitution sitting somewhere between the two) when plotted on a scale. Using this theoretical framework (see figure ) it can be observed that as the ENP role has become established it has moved along the spectrum of task and role substitution towards one of interprofessional working as other professions begin to understand and accept their role and knowledge. This professional group is now claiming this area of work as their own, and as a consequence ENPs are being seen to contribute towards successful service delivery and interprofessional working, as well as developing their own discreet professional identity which is distinct from both their nursing and medical colleagues in the emergency care setting

Figure 5 Interprofessional theoretical framework



There are, however, identifiable disadvantages to the development of this role. Of particular note in the literature is the concern raised that senior nurses are being

removed from the experienced nursing workforce in emergency care and are taking their knowledge and leadership away from the day to day running of busy emergency departments and thus diluting the nursing skill mix (Yong 2006). Coupled with this is the potential fear that future ENPs will identify that there is little or no financial reward for undertaking extensive further education and the extra responsibility that the role now demands. Additionally, where once the role attracted senior nurses who wanted to work more attractive hours, the need to meet growing demand for services out of hours has meant that the service provision has extended and ENPs are now working increasingly unsocial hours. While job satisfaction is a key reason for senior nurses to take on the ENP role, in the future ENPs may become a more mobile workforce as they become increasingly questioning of the prospect of undertaking increased responsibility with no financial reward, and working increasingly unsocial hours with no clear career progression.

While there is less experience and evaluation of new roles such as the extended scope physiotherapist, there are some themes emerging from the literature. In the case of the extended scope physiotherapist it could be argued that their role expansion in emergency care has developed in a more interprofessional way, mainly because the role brings profession-specific expertise to emergency care (McClellan *et al.* 2006). However if this role expands further it seems that the role extension could in fact move back along the spectrum towards task substitution as the ESP takes on tasks such as venepuncture and wound management. Positively, this will mean less 'hand offs' in care for patients, but conversely could mean a perceived dilution of the physiotherapist's well defined and accepted expertise and knowledge.

This different approach to delivering redefined models of care would suggest that health care roles are being encouraged towards a model of being based on competence rather than professional identity, in that occupation alone does not determine who conducts these tasks (Cameron & Masterson 2003). However, it might be argued that while non-medical professionals have been concentrating on overcoming the interprofessional challenges with medical colleagues, the views and education of patients regarding these new roles has been assigned a less important and inconsistent role, resulting in the views of participants identified during this study.

## 5.8 Methodology and limitations

This study utilised a mixed methods approach to data collection in order to address the thesis aims which were to measure unplanned follow up rates, as well as to explore why patients sought unplanned follow up. In essence the research methods did achieve the initial aims of the study, but there were always going to be challenges associated with a mixed method design and the associated philosophical tensions which were identified in chapter 3, as well as the inexperience of the researcher.

There were a number of limitations to this research. The most obvious was the failure to recruit adequate numbers of patients to the focus groups. While important data was collected in phase 3 of the study, the third focus group was in fact an interview and one of the key advantages of using focus groups as a data collection method, namely the added dimension of the interactive element between participants, was lost. Even in the first focus group of 3 participants this was not fully realised due to the small numbers involved. In hindsight, while individual interviews with participants may have seemed overly resource intensive at first, it may be that this approach would have been more successful in recruiting greater numbers of participants to ensure data saturation was reached. It would also have been possible to offer greater flexibility in timings of the interview and venues for the potential participants. While one participant who took part in a focus group identified that it was the decision to give up the time to attend which was the most important part of the decision to take part or not when invited to do so, others may have declined to take part because there would be other people who they had not met before in the room. It was highlighted earlier in this thesis that recruiting patients in emergency care settings can be challenging due to a variety of reasons, including an understandable lack of reciprocity because of the short relationship the patient in emergency care has with an institution and healthcare professional.

There may also be an as yet unidentified positive reporting bias in the use of focus groups in the published literature. Despite extensive searching of the literature I could find no negative issues reported in relation to the recruitment of participants to take part in focus groups, or an inability to achieve the added dimension of interaction between participants which this method of data collection is intended to generate.



This has ethical implications for the use of focus groups in specific areas of health research if the failure to recruit or the failure of the underpinning philosophical approaches to focus groups is not reported when research findings are published. If a methodical approach is not suitable yet continues to be used in inappropriate settings then concerns regarding the ethical recruitment of patients are raised.

In phase 2 of this study a scale of patient satisfaction was deliberately not included, but instead an open question was used in order to generate themes which could be analysed. In reality patients were not as forthcoming as had been predicted, and again in hindsight a Likert scale of satisfaction may have been a useful measure of satisfaction with the visit, as well as generating a conversation with the participant justifying their response which may have proved fruitful. On reflection, while an appropriate ED patient satisfaction questionnaire was not identified, the adaption of a previously validated patient questionnaire in a different clinical setting may also have been a useful addition to the study such as The Physician and Patient Satisfaction Questionnaire (PSQ) (Zandbelt et al 2004). An advantage of this approach may have been in providing additional infrastructure and in contributing to the validity of the findings in the exit questionnaire or subsequent telephone interview.

The study did not collect data over a 7 day, 168 hour representation of the working week and therefore it is not fully representative of the patients attending over a whole week. The researcher did move away from only recruiting in hours, when it was realised there was a risk of potentially biasing the sample by over-representing patients who had attended the ED in 'office hours', when their GP surgery was also open. There was also a potential missed opportunity to identify if patients attending 'out of hours' were more likely to seek unplanned follow up subsequently. When patient decision-making was explored in more depth in the focus groups, patients justified their choice for attending 'in office hours' because they felt they knew that their GP could not deal with their problem and previous experience had suggested to them that they may need an x-ray or further investigations that other health care providers could not provide. At the time of the study only the medical workforce worked a full 24 hour shift pattern with the ENPs covering an 18 hour period in every 24 hours and the ESP service covering a 10 hour period four days a week. Since January

2013 the ENP service has become a 24 hour, 7 day a week service and this may have further implications for the findings of this study. In order to undertake truly representative sampling of the professional groups, a more structured approach to sampling could have been undertaken, facilitating more direct comparisons.

Participants consented to the telephone calls being recorded, but the researcher found (within the first 10 interviews) that the act of turning on the tape recorder and reminding the participant that they were being recorded consistently turned the interview from a conversation to a much leaner question and answer interview, so this was abandoned and the researcher made notes from the telephone interview and wrote them up immediately afterwards in order to preserve the quality and depth of data.

Contacting participants by letter was considered in my supervisory group in order to increase follow up rates in phase 2 (having acknowledged that a study amendment would need to be submitted to the ethics committee). However after reviewing the literature (Boynton & Greenhalgh 2004; Boynton 2004) it was agreed that this method was unlikely to boost follow up rates.

Arguably the telephone interviews could be described as extended quantitative data collection rather than the qualitative data tool which was initially proposed. It was challenging to re-establish a rapport quickly with participants, and this may have contributed to the briefness of some interviews. It was of interest to the researcher, but probably unsurprising, that participants who had not had a very good experience were more ready to talk about their ED visit. Patients were either very appreciative or summed it up as 'it was what it was', and were reluctant to expand any further despite encouragement. Both these issues highlight the complex challenges experienced when trying to recruit patients who have accessed emergency services. It is becoming recognised that patients approached to take part in health services research may be suffering from research fatigue as an increasing number of research studies try to recruit patients from similar populations (Patel et al 2003; Gul & Ali 2010). Together with the understandable lack of loyalty to a speciality such as emergency care, because of the brief and unexpected encounter with a service, this may explain to some extent why patients are not as keen to take part in research, and will lead to lower

recruitment and response rates. Unless there is a direct therapeutic value to the participant in taking part in a research study in the ED the altruism of the participant has to be relied upon (Patel et al 2003)

Despite the fact that the number of participants was based on a power calculation related to phase 1, the study recruited relatively small patient numbers. The lost to follow up rate that occurred in phase 2 was not included in the initial calculation of participants recruited, and could have been predicted based on previous studies in this area (McClellan et al 2013), and added to the initial calculation in order to make the findings from this thesis more statistically powerful. The small numbers arising in some simple statistical analyses highlighted this issue and meant that Fishers exact test needed to be employed. A more representative sampling strategy targeted at the type of healthcare professional treating the recruited patient would have addressed this issue, which was principally related to the small numbers of patients who were recruited having been treated by an ESP. At the time of the study there was only one ESP employed in the ED, and even if an alternative sampling strategy had been employed the findings would have still represented one individual rather than the whole professional group. This is an important point to highlight; the number of HCPs in each professional group was relatively small. Although there were 20 ENPs working in the ED and up to 32 medical staff as well as locum doctors whose patients could have been recruited these are still relatively small numbers from a single ED, and arguably the findings relating to patient experiences and perceptions are based on a relatively small number of HCPs treating them in a single hospital. This may suggest that the findings are not generalisable more widely in ED settings as they may reflect individuals rather than entire professional groups, and one ED rather than all hospitals. A much larger multicentre study using a representative sampling strategy of patients treated by different HCP groups would be required in order to understand whether these findings could be validated and represent the perceptions, experiences and behaviour of patients attending EDs in the UK.

While the characteristics of the participants lost to follow up in phase 2 of the study were analysed in order to try and understand if there were any key differences in the patient group lost to follow up, we do not know if they sought unplanned follow up

elsewhere. The data collected for reporting unplanned return rates for the relevant national clinical indicator allowed the researcher to ascertain that none of the patients lost to follow up sought unplanned follow up at the index ED in the 2 weeks following their initial visit. However this does not discount the fact that a proportion of this group may have sought unplanned follow up from other health care providers which may impact on the findings in this study, and the unplanned follow up rates for each professional group. In order to try and mitigate this research design and submission to the ethics committee could have included the ability of the researcher to have contacted the patient's GP to ascertain whether they had attended for an issue related to their attendance to the ED within 2 weeks. Contacting neighbouring EDs and MIUs would have been a time-consuming addition to the research protocol to ascertain the same information for patients lost to follow up, but would have contributed valuable information regarding unplanned follow up rates in this patient population.

Finally, although the researcher endeavoured to build honest professional relationships with the patients recruited to the study it is important to acknowledge that there is no way of actually identifying whether patients always told the truth about what they did and think. Despite the researcher being aware of their ability to influence the participants both negatively or positively, and taking steps to try and diminish this effect, it is unlikely that the professional background of the researcher could be completely removed from any interaction. Participants may have been concerned about the impact a negative response might have on their on-going or future treatment despite reassurances that all responses were anonymous, and may have obscured negative views about nursing staff to avoid offending or upsetting the researcher.

## **5.9 Reflexivity**

It was important at the beginning of the thesis to acknowledge the potential tensions and issues which may arise as a result of my dual roles and also to try and obviate any negative effects which could affect the validity and reliability of the study. The professional background and lack of independence of the researcher will have an important effect on the study participants whether it is acknowledged or not.

It is impossible to remove all the effects, both positive and negative, of my roles within the research but it is important to acknowledge where I may have affected the data collection and potentially patient responses. Positively; my clinical role allowed me to have access to the clinical environment and patients required for this study with very little negotiation, once appropriate ethical and research governance approvals had been gained. It is also an environment in which I feel very comfortable in working, and as a result I felt at ease in approaching patients to ask them to take part in this study. I also found that clinicians (both medical and nursing staff) were very encouraging and would introduce me as a researcher to patients just before the patient was about to be discharged; the timing of this was ideal in that a relationship (albeit short) had developed between the nurse or doctor treating the patient, and their introduction of me was seen as a normal part of the pathway in the patient's visit to the emergency department.

One of the tensions identified early on during supervision meetings was the importance of indicating to both the clinical teams and the patients that when I was in the emergency department recruiting patients and collecting data I was there as a researcher and not as part of the clinical team. This was particularly important for patients to understand because of the potential perceived risk of coercion to agree to take part in the study if I was perceived as part of the clinical team, and therefore had the power to positively or negatively affect an individual's treatment or waiting time. One simple but effective way was to ensure I was not in uniform when I was recruiting patients and to be careful in the choice of words when I introduced myself as a researcher in the department and to avoid using words such as 'we' insinuating that I was 'on duty' and could influence care.

Another unexpected tension, particularly when recruiting patients out of hours, was the difficulty in declining to give clinical advice or opinions to nursing and medical staff about patients who I might be recruiting. This really did not sit easily with me especially if there did not seem to be an alternative person to ask in a timely manner. So in effect my being in the department as a researcher could affect a patient's care who I approached to take part in the study because I had declined to give advice or offer an opinion when asked as a senior nurse. Another important issue was my

professional relationship with my colleagues; I was mindful that I needed to continue my professional relationships with colleagues in the team long after the research was completed. This showed me that the movement between roles is not easy and not as simple as just changing out of uniform. A pragmatic compromise was to accept that giving advice when asked directly was the correct choice under the ethical tenant of beneficence, and to do this away from the patient area. It was my responsibility as a senior nurse, professional lead for the ENP service and research student to balance and safely integrate successfully the competing demands of both roles, and to understand the potential implications for the research.

The findings from this study refute the results of McClellan et al's (2013) study carried out in the same ED. It could be argued that the findings of this study provide a defence of the work and role of ENPs following the perceived attack on the professional group. While McClellan et al (2013) discovered that patients seen by ENPs had a significantly higher unplanned follow up rate, with the associated implications for workforce planning and future commissioning of services, the findings from this thesis suggest that this is not the case. It can be argued that the professional identify of the researcher designing, carrying out and interpreting the results will have an effect on a study's outcome, albeit unconsciously. It may be that if a similar study was carried out by a doctor that findings would be in favour of that professional group. It was important while consciously trying to conceal my professional identity from participants during the study that I did not do this when writing up the thesis in order to allow the reader to identify my professional background and be transparent about defending the findings.

#### **5.10 Comparison of findings in this study to McClellan et al (2013)**

This study built upon the work and findings of McClellan et al (2013) who investigated the clinical and cost effectiveness of doctors, ESPs and ENPs in an ED. They found that the unplanned and planned follow up rates were very different to the findings in this study even though the studies were undertaken in the same inner city ED, albeit 4 years apart and in a somewhat different patient population. In the study by McClellan

et al it was found that patients treated by ENPs were more likely to visit their general practitioner following treatment in the ED when compared with patients treated by doctors or ESPs; additionally the number of patients referred for an orthopaedic follow up review was found to be higher in the ENP group when compared with ESPs or doctors.

One reason for the difference in findings may be that the patient populations investigated and recruited to each study were different. In this thesis all patients who presented to minors, including patients with undifferentiated chest pain and abdominal pain and patients with complicated fractures and dislocations which required reduction, were included in the study because 2 of the professional groups (doctors and ENPs) would normally see these presentations. In McClellan's study the inclusion criteria for all HCPs concentrated on the much smaller and defined patient population of patients presenting with only soft tissue injuries (no wounds, fractures, minor illness, etc.). This large difference in patient presentations may have had a direct impact on the findings, particularly as it is already known that patients presenting with specific conditions such as abdominal pain are more likely to seek unplanned follow up (Nunez et al 2006). McClellan identified that ESPs were not as versatile as doctors and ENPs in seeing a broad scope of patient presentations, however ESPs do provide an additional level of specialist knowledge and skills which can, it could be argued, contribute to the prevention of patients seeking unplanned follow up for a defined range of soft tissue injuries.

A different time frame for follow up was adopted in this study compared with McClellan et al's study, so while they followed up patients at 2 and 8 weeks, this study followed-up patients at 2 weeks only. This strategy was adopted because of the increased risk of losing patients to follow up 8 weeks after their initial presentation, as well as being influenced by the fact that national data were only being collected for patients who re-attended within 7 days of their original attendance . There is a risk that patients in this study may have sought unplanned follow up later than 2 weeks after the original attendance. Positively the patients recruited to the focus groups up to 14 months after their original presentation were able to reassure the researcher

that none of them had sought unplanned follow up later than 2 weeks after their original presentation.

Another contributory factor may be that the ENP team have matured in their professional practice in the years following McClellan's study. The expansion in practice and experience may have contributed to more confident practitioners who have unwittingly adopted positive behaviours they have observed in other HCPs working in emergency care who they perceive to be successful in managing patients. However this supposition would be difficult to prove.

Finally it may simply be that we do not know how to explain these different results and a larger study with carefully controlled inclusion criteria and representative sampling may be the only way to further investigate why such discrepant results were found.

Interestingly there were two areas in which both studies agreed in their findings; the first being the burden encountered by patients having to visit their GP for a medical certificate or 'fitness to work' note in order to certify their sickness, and the second being the lack of clarity nationally about role titles, scope of practice and educational preparation for such non-medical roles.

### **5.11 New Knowledge**

This thesis has contributed to the development of new knowledge in three ways:

- This study showed that patients who initially attend an ED and go on to seek unplanned follow up will return to an alternative health care provider. This suggests that the current policy of routinely collecting data about unplanned return rates to EDs does not accurately reflect unplanned return rates and because of this, the current national data probably under represents the unplanned return rates in patients who are initially treated in an ED.
- This study showed that the most common reason for seeking unplanned follow up was probably as a consequence of the unrealistic advice about healing rates and lack of detail about expected trajectories of injury and illness. If healthcare professionals were to routinely incorporate this specific information in the discharge advice given to patients treated in the ED the findings of this study



suggest that unplanned follow up rates could be significantly reduced, thereby diminishing the burden of unplanned attendances on the health economy.

- Gender bias in the misidentification of health care professionals by patients was also demonstrated in this study suggesting that even in the twenty first century there is still a measurable bias in the general public's perception of gender and professional identify; doctors are male and females are nurses. Non-medical staff now routinely deliver services in health care, but this study found that patients are not able to reliably differentiate between medical and non-medical personnel even when it is routine practice for all health care professionals treating patients to identify themselves by name and profession or job title. However, this inability to differentiate between treating healthcare professionals did not seem to have a positive or negative effect on patient satisfaction or confidence in the HCP; rather it was the characteristics and behaviour that the HCP displayed that engendered confidence in the patients recruited to this study. However, patients indicated that they would still rather see a doctor than a non-medical practitioner, and this appears to centre around traditional beliefs and a lack of knowledge about how non-medical professionals are prepared for the role, as well as their level of knowledge and decision making. An additional issue is the longstanding belief that only doctors are the arbiters of medical knowledge. This suggests that public education would be helpful in updating the public and providing accurate information on who may treat them. This major shift in the public's philosophical understanding of medical, nursing and AHP roles would be positively influenced by a national standardisation of job titles as well as competence. Positively for healthcare planners and commissioners of care, patients treated by non-medical HCPs were no more likely to seek unplanned follow up than patients treated by doctors. This finding will reassure commissioners that appropriately educated non-medical professionals can address the workforce gap appearing in the delivery of emergency care services.

### 5.11.1 Recommendations for EDs

The findings of this study and the associated underpinning literature have generated some recommendations for EDs in the UK, and healthcare professional groups, in order to reduce the rates of patients seeking unplanned follow up as well as identifying some specific benefits for managers and commissioners of ED services in employing non-medical health care professionals such as ENPS and ESPs.

What can be done to reduce unscheduled return rates?

- Collecting more detailed data than that required for the clinical indicator about unplanned returns within 7 days can give additional information that can influence the initial management of patients attending the ED
- Taking educational opportunities to educate patients about the HCP they may see in the ED while they are waiting may contribute to increased confidence in the HCP and their management and advice on the patient's condition, thereby reducing the risk of patients seeking reassurance elsewhere.
- Implementing additional education around consultation styles and the consequences of utilising specific approaches will help junior staff (medical and non-medical) to develop styles which impact positively on patient satisfaction with their visit.
- Reminding all HCP of the importance of identifying whether a 'fitness to work' certificate is required before discharge would reduce some unplanned follow up visits.

### 5.11.2 Recommendations for HCPs

What can healthcare professional groups do to reduce unscheduled return rates?

- Evidence from the literature, which is supported by the findings from this thesis, suggest that adapting consultation skills in order to adopt a participatory, empathic relationship with patients can increase patient satisfaction rates with the HCP they see and as a result increase confidence levels in the HCP's treatment and management, as well as patient satisfaction.

- Managing pain and discharging patients with a definitive pain management strategy can prevent unplanned returns.
- Being aware that patients attending with abdominal pain, children aged less than 5 years old attending out of hours and older patients have a significantly higher unplanned return rate in the international literature, and therefore this should be taken into consideration when making discharge plans for these patients.
- Identifying the specific goals and red flags in a patient's illness or injury trajectory should be made clear to patients before discharge. Additional written information reminding the patient what to expect and the time scales associated with recovery from their condition and what specific action they should take should be part of the management plan for all patients discharged from the ED in order to reduce the amount of patients seeking further reassurance.

#### 5.11.3 Recommendations for managers and commissioners of healthcare

- The benefits of employing non-medical practitioners were clearly demonstrated in this study
- There is no evidence from this work that well trained and supported non-medical HCPs have a higher planned or unplanned follow-up rate, and they may have some advantages over junior medical staff in terms of consultation skills, patient satisfaction and reconsultation rates.
- The development of national standards, role titles and a change in legislation to allow non-medical HCPs to be able to certify 'fitness for work' would remove the small number of remaining barriers to the effective implementation of established interprofessional roles in emergency care.

#### 5.12 Future Research

Undertaking research in ED settings is challenging, but in spite of this further areas of investigation have been identified from this study and the changing health policy

which influences the work of EDs in the UK. The findings from this study have identified that the following areas require further investigation and research:

- A larger multi-centre research study throughout the UK is needed to accurately identify the accurate unplanned follow up rate for patients attending EDs. This needs to capture the additional healthcare providers that patients may seek further unplanned care from, as well as the underlying reasons for this.
- Controlled studies of interventions to reduce unplanned follow-up rates would be useful to test some of the recommendations arising from this work. For example, it would be valuable to assess the impact of a training package designed to improve the communication skills of staff and the information given to patients, possibly supported by written materials.
- Further research into patients' understanding of new HCP roles in EDs is required on a larger scale in order to identify if patients are confident in these new roles as well as their ability to differentiate between medical and non-medical treating clinicians and the consequences of role substitution
- A national service evaluation of a pilot of non-medical HCPs being able to dispense 'fitness to work' certificates to patients in order to understand the benefits to patients and GPs, and whether there are cost benefits or an associated burden to the health community as well as to benefit claims.
- A national evaluation of the potential benefits and negative consequences of a national register for non-medical professionals working in autonomous roles being developed.

### **5.13 Summary**

This chapter has discussed and explored the findings of this study in depth. The findings suggest a high level of patient satisfaction with ED attendance. 20% of patients seen by an ENP identified them as a doctor rather than an ENP. It is suggested that it is the consultation style that ENPs adopt which may engender

patient confidence. The concept of interpersonal competence appears to be related to the ENPs lower unplanned and planned follow up rates compared with their fellow HCPs. A theoretical model of interprofessional working and professional knowledge is proposed to explain the blurring of professional boundaries in emergency care and the work still to be achieved by ENPs. There was an 18% rate of unplanned follow up demonstrated in this study. Participants sought unplanned follow up for a variety of reasons, but lack of confidence in the HCP who treated them was not found to be a significant factor. Participants demonstrated a gender bias when asked to identify the HCP who had treated them.

## 6. Conclusion

This study has contributed to a growing understanding of the reasons why patients may subsequently seek unplanned follow up having initially attended an ED. Building upon the findings of a previous study carried out in the same ED, this thesis further explored the unplanned follow up rate of patients attending an ED, and the reasons for this, using a mixed methods approach.

This study set out to examine whether the patient knew which professional group they were treated by in the emergency department, and to identify whether the patient's perception of, and confidence in, the healthcare professional had an impact on their subsequent decision to seek follow up.

The literature which underpinned and influenced this study showed that in the UK the lack of a standardised, nationally recognised educational programme for the preparation of ENPs has probably contributed to the narrow scope of practice reported in studies. A high level of satisfaction and acceptance of non-medical roles was found. Issues that contributed to patient dissatisfaction or reluctance to see an ENP included a perceived lack of social skills and professional confidence. Generally other HCPs have accepted non-medical roles in the ED, although important issues such as lack of clarity and definition of roles, concerns about scope of practice, reduction in junior doctors' experience and potential animosity from ED nurses were found. From the currently small evidence base exploring unplanned follow up rates it was found that specific patient populations are at higher risk of seeking unplanned follow up; younger children, children who present with gastroenteritis, upper respiratory tract infection, adults with long term conditions, abdominal pain and older patients. Until recently, ENPs had a similar or lower unplanned return rate than their medical colleagues. Concerningly, McClellan et al (2013) found that a significantly higher proportion of patients seen by ENPs sought unplanned GP follow up when compared to doctors and ESPs.

The findings of this thesis ascertained that 18% of the participants sought unplanned follow up. The major reason was to seek reassurance and address worries concerning a wrong diagnosis because things were not progressing as expected. The patients treated by non-medical HCPs were no more likely to seek unplanned follow up than

those treated by a doctor. High levels of satisfaction were found from participants when their experience of their ED visit was explored. Participants also showed a considered approach in the reason for attending the ED.

A fifth of the participants incorrectly identified the HCP who treated them, despite it being normal practice for HCPs to introduce themselves by name and profession when meeting patients. Participants showed a gender bias when identifying the professional group of the HCP treating them. Four female doctors were incorrectly identified as ENPs and the male ESP was incorrectly identified as a doctor by over 50% of participants treated by him. 1 in 3 participants incorrectly identified the ENP who treated them as a doctor (irrespective of the gender of the ENP). When these issues were explored further in the focus groups, some participants revealed that they would prefer to be treated by a doctor when they attended the ED, despite being unable to correctly identify the HCP who had treated them.

Participants did not indicate that a lack of confidence in the professional group of the treating HCP was a reason for seeking unplanned follow up. Rather they identified positive characteristics in the treating HCP which engendered confidence; particularly interpersonal competence.

The practical challenges encountered in this study meant that follow up to the second phase of the study and to the focus groups was difficult, and resulted in focus groups that were smaller than planned. This is a common finding in studies undertaken in emergency care. An unexpected finding was a potential positive reporting bias in the literature discussing the use of focus groups in healthcare.

Further research in this area would be valuable. A larger multi-centre research study is needed to more accurately identify the true unplanned follow up rate for patients attending EDs. This needs to capture the additional healthcare providers that patients may seek further unplanned care from, as well as the underlying reasons for this. Controlled studies of interventions to reduce unplanned follow-up rates would be useful to test some of the recommendations arising from this work. For example, it would be valuable to assess the impact of a training package designed to improve the communication skills of staff and the information given to patients.

Unplanned follow up rates in emergency care are under scrutiny from the current government and NHS England. While unplanned return rates to the same ED are reported against a national target of less than 5% in the 7 days following the original attendance, this study has demonstrated that a significant percentage of patients who attend an ED seek unplanned follow up in a variety of other healthcare settings indicating that the currently reported rate is a substantial under-estimate. Reassuringly for commissioners of care, non-medical HCPs were not found to have a higher follow-up rate than their medical colleagues. Despite the fact that non-medical practitioner roles have been developed in EDs over the last twenty years, and are evaluated as safe and effective in contributing to managing the increasing demand for emergency care, patients are still not familiar with the functions or titles associated with these roles. This may be due in part to a lack of national standardisation or professional regulation.



## 7. Appendices

### Appendix 1



### Exploring patients perceptions of their visit to the emergency department

<b>1. Can you estimate how long you were in the emergency department as a patient today?</b>			
Please tick one box			
15 minutes or less	<input type="checkbox"/>	2-2 ½ hours	<input type="checkbox"/>
More than 15 and less than 30 minutes	<input type="checkbox"/>	2 ½ - 3 hours	<input type="checkbox"/>
Between ½ an hour and 1 hour	<input type="checkbox"/>	3-3 ½ hours	<input type="checkbox"/>
1-1 ½ hours	<input type="checkbox"/>	3 ½ -4 hours	<input type="checkbox"/>
1 ½ - 2 hours	<input type="checkbox"/>	Over 4 hours	<input type="checkbox"/>

<b>2. Can you tell me who treated you today?</b>	
Please tick one box	
Doctor	<input type="checkbox"/>
Nurse Practitioner	<input type="checkbox"/>
Extended scope Physiotherapist	<input type="checkbox"/>
Physicians Assistant	<input type="checkbox"/>
Other please state:	

<b>3. How long did you spend with the person who treated you (This is the total time if you saw them more than once during your visit)</b>	
Please tick one box	
1-5 minutes	<input type="checkbox"/>
6-10 minutes	<input type="checkbox"/>
11-15 minutes	<input type="checkbox"/>
16-20 minutes	<input type="checkbox"/>
21-25 minutes	<input type="checkbox"/>

**4. Were you advised to attend for a follow up appointment?**

Fracture clinic

Physiotherapy

ENP review

General Practitioner

Practice Nurse

No follow up

Other (please state)

The next questions are about you

**5. Are you**

Male

Female

**6. How old are you?**

**7. Did you attend today because you were unwell or because you had hurt yourself?**

Injury

Illness

Appendix 2:Consent form (Phase 1 & 2)



**Exploring patients perceptions of their visit to the emergency department**

Patient Identifier

**CONSENT FORM**

Initial each box

1) I confirm that I have read and understand the information sheet dated February 2011, Version 4 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2) I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected

3) I understand that relevant sections of my medical notes and data collected during the study may be looked at by the research team from the University of the West of England, from regulatory authorities or from the NHS trusts, where it is relevant to my taking part in the research. I give permission for these individuals to have access to my records

4) I agree to take part in phase 1 of the study (answering a short questionnaire today)

5) I agree to take part in phase 2 of the study where I will be contacted by telephone in 2 weeks time and I understand that this interview will be audio taped and I understand that relevant sections of the audio tapes may be listened to by the research team from the University of the West of England. I give permission for these individuals to have access to this.

Name of patient                      Date                      Signature

Name of researcher                      Date                      Signature

*When completed 1, for the patient, 1 for the researcher, original to be kept in the medical notes*

**Patient Study Information Leaflet**

## **Exploring patients perceptions of their visit to the Emergency Department**

We are inviting you to participate in a research study because you attended the Emergency Department today as a patient. Before you decide whether or not to take part in this study it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information. Please take time to decide whether or not you wish to take part.

### **What is the purpose of the study?**

We are conducting a survey of patients attending the Emergency Department at the Bristol Royal Infirmary. A sample of people who attend the department for treatment will be asked to take part. The information we collect will be entirely confidential and will not affect your treatment in any way. This survey will improve our understanding of patients information needs and therefore help us to provide better health care and services to all of our patients in the future.

### **Why have I been invited to take part?**

You have been invited to take part because you have attended the Emergency Department today as a patient.

### **Do I have to take part?**

No, this survey is entirely voluntary. If you do not wish to take part then simply tell the researcher that you are not interested.

### **If I do take part, what will I be asked to do?**

At a convenient point during your visit today, you will be approached by an independent researcher who is conducting the survey. The survey questions relate to your visit today. You can choose whether to take part in this short survey, and can answer as many or few questions as you wish. The survey will not delay you being seen by either a nurse or doctor, and will occur at a point convenient to you (for example, whilst waiting to be seen by a doctor). If you agree to take part you will be asked some questions in an area away from the waiting room, this should take no more than 5 minutes. You will also be telephoned in 2 weeks time to answer a short questionnaire which should take no more than 10 minutes. The researcher will arrange to telephone you at a convenient time for you.

### **What are the possible disadvantages and risks of taking part?**

No risks to your health have been identified in you taking part in this study. Your treatment today by a doctor or nurse will not be delayed by you taking part in this study.

### **What are the possible benefits of taking part?**

No personal benefits to you have been identified, although some participants may find it helpful to talk about their experiences of visiting the emergency department. By taking part in this study you will be contributing to our understanding of patients' experiences and this information may be used in the future to help us improve our service.

### **Confidentiality- who will know I am taking part in the study?**

We respect your privacy. The survey is being performed by an independent researcher who will not be involved in the assessment or treatment of your problem with which you have attended today. This information will not be passed on to the nurse or doctor that you see and will not affect the treatment you receive. No other parties (e.g. your GP) will be given this information.

**What will happen to the results of the study?**

The information you give will be kept secure and separate from your medical notes. It will be destroyed after the research study is completed. It is anonymous and you cannot be identified from this information. All the patients will be given a unique code so there is no risk of any personal information being obtained by anyone other than the researcher. The results of the study are expected in 2013, and a summary of the study will be published in the hospitals magazine 'Voices' which is available to patients, the public and staff. The results may be reported in professional publications but it will be impossible to identify you personally from these results.

**What if there is a problem?**

If you have a concern about any aspect of this study, you should speak to the researcher who will do their best to answer your questions Tel 0117 3422713. If you remain unhappy and wish to complain formally you can do this by contacting: Patient Support & Complaints Team, Trust Headquarters, UHB, Marlborough Street, Bristol, BS1 3NU. Tel 0117 342 3604

**What will happen to the results of the study?**

The information you give will be kept secure and separate from your medical notes. It will be destroyed after the research study is completed. It is anonymous and you cannot be identified from this information. Once analysed, the overall results of the study will be published in a healthcare journal and be available for healthcare staff and the public to read. It will be impossible to identify you or any other person from the published results.

**Who is organising and funding the research?**

The study is being organised by clinical research staff from within the Emergency Department. The research is being undertaken as part of a Professional Doctorate from the University of the West of England, Bristol.

**Who has reviewed this study?**

The research has been reviewed by the South West 3 Research Ethics Committee, the University of the West of England and University Hospitals Bristol NHS trust.

**What happens now?**

Please wait to meet our independent researcher and make sure you have read the information provided and understood what is being asked of you. The researcher will be happy to answer any questions you have about the study before you agree to take part. Thank you for taking the time to consider this request.

Should you have any questions about the study please feel free to contact Rebecca Hoskins who is co-ordinating the study.

Rebecca Hoskins  
Emergency Department,  
Bristol Royal Infirmary,  
Telephone 0117 3422713

Appendix 4: Telephone interview (phase 2)

**Exploring patients' perceptions of their visit to the  
emergency department (phase 2 telephone interview)**

**Participant code**

**1. Can you remember who treated you when you visited the  
emergency department?**

Please tick one box

Doctor

Nurse Practitioner

Extended Scope Physiotherapist

Physicians Assistant

Other please state:

**2. Were you satisfied about the care you received?**

*(Prompts: the wait to be seen/the healthcare professional you saw)*

**3. Since visiting the emergency department, how is the problem now?**

**4. Have you been to see any other healthcare professional about the problem you went to the Emergency Department within the last 2 weeks?**

No  → Interview completed

Yes

**5. Who did you see?**

**6. What were you concerned about?**

**7. Did they help? If yes; how?**

**8) Is there anything that could have been said or done differently at your initial visit to the emergency department that might have reduced the need for you to go and see another healthcare professional?**

**9 Is there anything else you would like to say?**

**Thank you for your help. Would you be interested in taking part in a small discussion group about your visit to the emergency department?**

**Yes**  **No**



Appendix 5 Consent form (phase 3)



**Exploring patients perceptions of their visit to the emergency department**

Patient Identifier

Initial each box

**CONSENT FORM (focus group)**

1) I confirm that I have read and understand the information sheet dated February 2011, Version 4 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2) I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected

3) I understand that the focus group will be audiotaped and that my identity will be anonymised. I understand that relevant sections of the audio tapes may be listened to by the research team from the University of the West of England. I give permission for these individuals to have access to this.

4) I agree to take part in the focus group and understand that the researcher will contact me regarding arrangements for the focus group.

Name of patient                      Date                      Signature

Name of researcher                      Date                      Signature

*When completed 1, for the patient, 1 for the researcher, original to be kept in the medical notes.*

**Patient Study Information Leaflet (focus groups)**

**Exploring patients perceptions of their visit to the Emergency Department**

We are inviting you to participate in a research study because you attended the Emergency Department and have already taken part in the first 2 parts of this study. Before you decide whether or not to take part in this study it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information. Please take time to decide whether or not you wish to take part.

**What is the purpose of the study?**

We are conducting a survey of patients attending the Emergency Department at the Bristol Royal Infirmary, in order to find out their opinions of specific aspects of their visit. Thank you for taking part in the first 2 parts of the study. For the final part of the study we are inviting patients to take part in a focus group.

**Why have I been invited to take part?**

You have been invited to take part because you are one of the participants who have already taken part in the first 2 parts of this study. The focus group is the final part of the study.

**Do I have to take part?**

No, taking part in this focus group is entirely voluntary. If you do not wish to take part then simply tell the researcher that you are not interested.

**If I do take part, what will I be asked to do?**

The focus group will be made up of about 8 people. The group will be asked to discuss some questions about their experiences and opinions of visiting an emergency department as a patient. The researcher will facilitate the focus group. The session will be audio taped in order that the researcher can accurately use the information gained. The tapes will be transcribed by the researcher who has a responsibility to maintain your confidentiality. The focus group will last for no more than 2 hours.

**Expenses and payments**

If you chose to take part in the focus group your travelling expenses will be reimbursed to you.

**What are the possible disadvantages and risks of taking part?**

No risks to your health have been identified in you taking part in this study. The main disadvantage to you will be in giving up your time to take part in the focus group.

**What are the possible benefits of taking part?**

No personal benefits to you have been identified, although some participants may find it helpful to talk about their experiences of visiting the emergency department. By taking part in this study you will be contributing to our understanding of patients experiences and this information may be used in the future to help us improve our service.

**Confidentiality- who will know I am taking part in the study?**

We respect your privacy. The audio tapes will be kept securely in a locked filing cabinet in a locked office. Only the researcher and the supervision team will have access to them. The tapes will be transcribed by the researcher. Your identity will be anonymised. All the patients will be given a unique code so there is no risk of any personal information being obtained by anyone other than the researcher. After the study is complete, the audio tapes will be securely destroyed. No other parties (e.g. your GP) will be given this information.

**What will happen to the results of the study?**

The results of the study are expected in 2013, and a summary of the study will be published in the hospitals magazine 'Voices' which is available to patients, the public and staff. The results may be reported in professional publications but it will be impossible to identify you personally from these results.

**What if there is a problem?**

If you have a concern about any aspect of this study, you should speak to the researcher who will do their best to answer your questions Tel 0117 3422713. If you remain unhappy and wish to complain formally you can do this by contacting: Patient Support & Complaints Team, Trust Headquarters, UHB, Marlborough Street, Bristol, BS1 3NU. Tel 0117 342 3604

**What will happen to the results of the study?**

The information you give will be kept secure and separate from your medical notes. It will be destroyed after the research study is completed. It is anonymous and you cannot be identified from this information. Once analysed, the overall results of the study will be published in a healthcare journal and be available for healthcare staff and the public to read. It will be impossible to identify you or any other person from the published results.

**Who is organising and funding the research?**

The study is being organised by clinical research staff from within the Emergency Department. The research is being undertaken as part of a Professional Doctorate from the University of the West of England, Bristol.

**Who has reviewed this study?**

The research has been reviewed by the South West 3 Research Ethics Committee, the University of the West of England and University Hospitals Bristol NHS trust.

**What happens now?**

Please make sure you have read the information provided and understood what is being asked of you. The researcher will be happy to answer any questions you have about the study before you agree to take part. If you are happy to take part, please complete the attached consent form and send back in the SAE. The researcher will be in touch with you to arrange a date and venue. Thank you for taking the time to consider this request.

**Further information**

Should you have any questions about the study please feel free to contact Rebecca Hoskins who is co-ordinating the study.

Rebecca Hoskins  
Emergency Department,  
Bristol Royal Infirmary,  
Telephone 0117 3422713

## Appendix 7 Focus group structure

### Focus Groups

#### Interview structure

(Notes for facilitator): Aims relating back to original research questions:

Did you have confidence in the healthcare professional you saw?

Does it make a difference to you what their title or professional background is?

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Welcome, thank participants for their time, Introductions.

Stress researcher role, open agenda, interested in participants feelings and experiences, positive and negative comments are welcomed.

Ground rules

Information leaflets and written consent forms

Focussed ice breaker

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- 1) Can you tell us about your ED visit?
- 2) Can you tell us your story of your follow up, who did you go to see and why? Is there any way do you think the follow up visit could have been avoided, could anything have been done on your visit to the ED? Were your expectations of both visits met. Did you get what the ED didn't give you from the follow up visit (only used if participants had sought follow up)
- 3) Can we spend a bit of time talking about the person you saw in the ED. What can you remember about them, did you know what job they did, did they introduce themselves, was it important to you then, did it subsequently become important? (exploring confidence in HCP, communication styles, male/female, participants perceptions)
- 4) What did you expect to happen when you came to the ED (Mismatch of advice and expectations?)
- 5) Is there anything else you would like to say?

Closure

Thank group

## Appendix 8 Ethics approval

Our ref: SE/lt

28 March 2014

Ms Rebecca Hoskins

Consultant Nurse & Senior Lecturer in Emergency Care

Emergency Department

Bristol Royal Infirmary

Bristol BS2 8HW

Dear Rebecca

**Application number: HSC/11/03/31**

Application title: An exploration of the influencing factors into why patients seek unplanned follow up after seeing a healthcare professional in the emergency department

NHS Application Number: 11/H0106/7

Your NHS Ethics application and approval conditions have been considered by the School Research Ethics Sub-Committee on behalf of the University. It has been given ethical approval to proceed with the following conditions:

- You comply with the conditions of the NHS Ethics approval.
- You notify the School Research Ethics Committee of any further correspondence with the NHS Ethics Committee.
- You notify the School Research Ethics Sub-Committee in advance if you wish to make any significant amendments to the original application.
- Please note that all information sheets and consent forms should be on UWE headed paper.
- If you have to terminate your research earlier than planned, please inform the School Research Ethics Sub-Committee within 14 days, indicating the reasons.
- Please notify the School Research Ethics Sub-Committee if there are any serious events or developments in the research that have an ethical dimension.

- Please be advised that as principal investigator you are responsible for the secure storage and destruction of data at the end of the specified period a copy of the guidelines are enclosed for your information.

Please note that your study should not commence at any NHS site until you have obtained final management approval from the R&D department for the relevant NHS care organisation. A copy of the approval letter(s) must be forwarded to Leigh Taylor in line with Research Governance requirements.

We wish you well with your research.

Yours sincerely

A handwritten signature in black ink, appearing to read 'S Evans', with a horizontal line underneath.

Simon Evans

Chair

Faculty Research Ethics Sub-Committee

c.c. Jonathan Bengier

## Developing a questionnaire

### An evidenced based approach to good practice in questionnaire design

Issue/item	Evidence
Clarifying exactly the information needed within the questionnaire is important. A clear objective is essential for a well-defined survey	Burns et al (2008, p245)  McColl et al (2000)
Establishing that a suitable instrument is not already available	<a href="http://surveynet.ac.uk/sqb">http://surveynet.ac.uk/sqb</a> The survey question bank is a searchable resource of the main large scale UK social surveys.
Choose a meaningful title, include an appropriate logo (questionnaires originating from universities are found to be more likely to be returned than questionnaires from sources such as commercial organisations)	Edwards et al (2002)
<p>Questions should be numbered and organised, every question stem should include a clear request for either single or multiple response and indicate the desired notation (eg tick, circle)</p> <p>The organisation of the questionnaire should assist respondents thought processes and facilitate questionnaire flow</p> <p>The questionnaire is clearly designed and has a simple layout</p>	<p>Passmore et al (2002)</p> <p>McColl et al (2000)</p> <p>Wall et al (2002)</p> <p>Robson (2002)</p>
<p>Operational definitions are helpful before potentially ambiguous questions</p> <p>Ambitious questions will lead responses that do not accurately capture participants views</p> <p>or to them not bothering to respond</p> <p>A common problem arises when the researcher uses abstract concepts and participants interpret them literally</p>	<p>Passmore et al (2002)</p> <p>Leudar &amp; Antaki (1997)</p> <p>McColl et al (2000)</p> <p>Oppenheim (1992)</p> <p>Boynton et al (2004)</p>
Specific formatting strategies such as coloured ink, placement of more interesting questions first and shorter length questionnaires enhanced response rates	<p>Edwards et al (2002)</p> <p>Greer &amp; Lohtia (1994)</p> <p>Jobber &amp; Sanderson (1983)</p> <p>Gillespie &amp; Perry (1975)</p> <p>McColl et al (2000)</p>

The length of questionnaires is found to influence response, short questionnaire make response more likely	Edwards et al (2002) Adams & Gale (1982) Berdie (1973) Ingesias & Torgerson (2000) McColl et al (2000)
Allow time to pilot the questionnaire, during piloting take notes on how participants react to the general format of the questionnaire and to specific questions/do questions have to be explained/how are questions asked perceived	Boynton (2004) McColl et al (2000)
Offering participants incentives or prizes in return for completion has been shown to increase participation rates (this is fraught with ethical issues in the clinical setting though)	Halpern et al (2002)
A researcher is available to answer questions and collect the completed questionnaire	Boynton (2005) McColl et al (2000)
Questionnaires have clear focus and purpose and is kept concise Avoid questions that run over to the next page Allow enough space for people to complete open text questions which are handwritten and boxes are better than lines	Oppenheim (1992) Edwards et al (2002) McColl et al (2000) Robson (2002)
The participants feels as though they are a stakeholder in the study	McColl (2000)
Use language suitable for a lay person to understand Be aware that the participant may be illiterate or functionally illiterate	<a href="http://www.plainenglish.co.uk">www.plainenglish.co.uk</a> (see appendices) McColl et al (2000)
Number the pages and add instructions such as 'please turn over' at the bottom of a page to avoid sections being missed	McColl et al (2000)
Put demographic questions including ethic monitoring towards the end of the questionnaire, in order to reduce participants discomfort in answering these questions	McColl et al (2000)



Appendix 10 -Worked example of the qualitative process of analysis

Based on Braun & Clarke (2006)

Phase 1: Familiarising yourself with the data	Researcher immerses self in the data through repeated reading , searching for active meaning and transcription of interview tapes
Phase 2: Generating initial codes	Production of initial codes, organising data into meaningful groups. Coding undertaken manually in this case, counting the frequency of words/issues which became themes
Phase 3: Searching for themes	Sorting the codes into potential themes, considering how different codes may combine to form an overarching theme
Phase 4: Reviewing themes	Refining themes, collapsing themes, discarding some themes which do not have sufficient data to support them
Phase 5: Defining and naming themes	Identifying the essence of each theme, identify what is interesting and why within the results of the themes.

Data extracts	Coded for:
<p><i>I think I probably <b>expected them</b> to examine it and do an x-ray – which is what they did.</i></p> <p><i>I only came here because <b>it could have been something else</b> and I wanted to eliminate that. I know the doctor cannot take an x-ray so I think that is one of the things</i></p> <p><i>I had to bring my partner to A&amp;E when she bashed her knee and at the time she was in quite of lot of pain and <b>I think she dislocated it</b> but it popped back in. She didn't want to go, she was in two minds, she was hobbling</i></p>	<p>Phase 2 and 3:</p> <p>Theme:</p> <p><b>Sorting out the problem</b></p> <p>Codes within the theme: (sub themes)</p> <ul style="list-style-type: none"> <li>• Expectations of what needed to be done</li> <li>• Choosing the right healthcare provider</li> <li>• Things weren't right</li> <li>• Things weren't getting</li> </ul>

<p>around. In the end I said to her she may as well go and <b>get someone to look at it</b>. It swelled up. I think we did actually ring NHS Direct first to see what they felt. It obviously was not broken but her knee cap looked a bit "wonky". But we came and waited only a short while, and <b>had her mind put at rest</b>, an elastic bandage and popped off home.</p> <p>I think it was <b>an injury that was not getting better</b> with the things that were recommended and actually the injury I have got is very rare.</p> <p>I thought OK because <b>it is my problem it needs to be seen</b> to, so I took myself off to A&amp;E on a Saturday morning and was seen to</p>	<p>better</p> <ul style="list-style-type: none"> <li>• It could be something serious</li> <li>• It's my problem to sort out</li> <li>• Seeking further help to make the decision</li> </ul> <p>Phase 4:</p> <p>Theme became:</p> <p><b>Taking responsibility for oneself</b></p> <p>Codes collapsed and became:</p> <ul style="list-style-type: none"> <li>• Not knowing if something was wrong</li> <li>• Proactive decision making</li> </ul>
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## List of References

- Abbott, A. (1988) *The System of Professions – a Study of the Division of Expert Labour*. University of Chicago Press: London
- Abbott, PD., Schepp, KG., Zierler, BK and Ward, D. (2010) The use of nurse practitioners and physician assistants in Washington and Oregon emergency departments. *Advanced Emergency Nursing Journal* 32 (4), pp.338-345
- Adams, LI., & Gale, D. (1982) Solving the quandary between questionnaire length and response rate in educational research. *Res Higher Educ* 17, pp.231-40
- Alberti, G. (2004) *Transforming emergency care in England*. Department of Health: London
- Alongi, S., Geolot D. and Richter, L. (1979) Physician and patient acceptance of emergency nurse practitioners. *JACEP* 8 pp. 357-9
- Anaf, S. and Sheppard, LA. (2007). Physiotherapy as a Clinical Service in Emergency Departments: a Narrative Review. *Physiotherapy* 93(4), pp. 243-252
- Annandale, E., Clark, J. & Allen, E. (1999). Interprofessional working: An ethnographic case study of emergency health care. *Journal of Interprofessional Care*. 13(2), pp. 139-150
- Audit Commission (1996) *By Accident or Design? Improving A&E Services in England and Wales*. HMSO, London
- Audit Commission (1998) *Life in the fast lane: value for money in emergency ambulance services*. Audit Commission: London
- Axelsson, SB. and Axelsson, R. (2009) From territoriality to altruism in interprofessional collaboration and leadership. *Journal of Interprofessional Care*. 23 (4), pp. 320-330
- Ball, ST., Walton, K. and Hawes, S. (2007) Do emergency department physiotherapy practitioners, emergency nurse practitioners and doctors investigate, treat and refer patients with closed musculoskeletal injuries differently? *Emergency Medicine Journal* 24(3), pp. 185-188
- Banning, M. (2004) Nurse prescribing, nurse education and related research in the United Kingdom: a review of the literature. *Nurse Education Today*. 24 pp.420-427
- Barbour, RS. (1999) The case for combining qualitative and quantitative approaches in health services research. *Journal of Health Services Research and Policy*. 4(1), pp. 39-43
- Barbour, RS (2001) Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *British Medical Journal*. 322, pp. 1115-7
- Barbour, RS (2005) Making sense of focus groups. *Medical Education* 39, pp. 742-750

- Barr, M., Johnson, D. and McConnell, D. (2004) Patient satisfaction with a new nurse practitioner service. *Accident & Emergency Nursing* 8, pp.144-147
- Barr, H., Koppel, I., Reeves, S., Hammick, M. and Freeth, D. (2005) *Effective Interprofessional education: argument, assumption & evidence*. Blackwell Publishing, Oxford
- Barriball, KL., Christian, AL., White, AE. and Bergen A(1996) The telephone survey: a discussion paper. *Journal of Advanced Nursing*. 24, pp. 115-21
- Baxter, SK. And Brumfitt, SM. (2008) Professional differences in interprofessional working. *Journal of Interprofessional Care* 22 (3), pp. 239-251
- Bazian LTD (2005) Do nurse practitioners provide equivalent care to doctors as a first point of contact for patients with undifferentiated medical problems? *Evidence-Based Healthcare and Public Health*. 9, pp. 179-191
- Beauchamp, TL. and Childress, JF. (1994) *Principles of Biomedical Ethics*. Oxford University Press: New York
- Beaudin, CL. and Pelletier, LR. (1996) Consumer-based research: Using focus groups as a method for evaluating quality of care. *Journal of Nursing Care Quality*. 10 (3), pp. 28-33
- Berdie, DR. (1973) Questionnaire length and response rate. *J Appl Psychol*, 58, pp. 278-80
- Bem, LS. (1981) Gender schema theory: a cognitive account of sex typing. *Psychological Review*.88, pp. 354-364
- Bender, DE. and Ewbank, D. (1994) The focus group as a tool for health reasons: Issues in design and analysis. *Health Transition Review* 4 (1), pp. 63-80
- Benger, JR. and Taylor, C. (2003) Patient satisfaction in emergency medicine. *Emergency Medicine Journal*. 21, pp. 528-32
- Benger JR & Hoskins R (2005) Nurses are autonomous professionals delivering expert care (letter) *BMJ* 330, pp. 1084
- Benger, JR. and Jones ,V.(2008) Why are we here? A study of patients actions prior to emergency hospital admission. *Emergency medicine Journal*. 25, pp 424-427
- Benger, JR and Carter, R. (2008) Could inter-agency working reduce Emergency Department attendances due to alcohol consumption? *Emergency Medicine Journal* 25, pp. 331-334
- Beniuk ,K., Boyle, A. and Clarkson ,J. (2012) Emergency department crowding: developing an operational definition using a Delphi study. *Emergency Medicine Journal*. 29 (11), pp. 868-871
- Bentley, J. (2004) Distress in children attending accident and emergency. *Emergency Nurse* 12 (4), pp. 20-26

- Bertakis, K., Helmis, L.J., Callahan, E.J., Azari, R. and Robbins, J.A. (1995) The influence of gender on physician practice style. *Medical Care*. 33, pp.407-416
- Binks, S., Hoskins, R., Salmon, D. and Bengler, J.R. (2005) Prevalence and Healthcare Burden Of Illegal Drug Use Amongst Emergency Department Patients. *Emergency Medicine Journal* .22, pp.872-3.
- Black, L.(2010) Unscheduled reattendances to a paediatric emergency department: an audit. APEM Free paper session. *Emergency Medicine Journal*.27: A9-A10 doi 10.1136/emj.2010.103150.26
- Black, N. (1996) Why we need observational studies to evaluate the effectiveness of health care .*British Medical Journal*. 312, pp. 1215-1218
- Blunt, E. (1998) Role and productivity of nurse practitioners in one urban emergency department. *Journal of Emergency Nursing*. 24, pp. 234-9
- Blumhagen, D.W. (1979) The doctor's white coat. The image of the physician in modern America. *Annals of Internal medicine*. 91, pp. 95-119
- Boland, M., Sweeny, M.R., Scallan, E., Harrington, M. and Staines, A. (2006) Emerging advantages and disadvantages of telephone surveying in public health research in Ireland and the UK. *BMC Public Health*. 6, pp. 208. [Available at <http://www.biomedcentral.com/1471-2458/6/208>] [Accessed 10 May 2012]
- Boudreaux, E.D. and O'Hea, E.L. (2004) Patient satisfaction in the emergency department: a review of the literature and implications for practice. *Journal of Emergency Medicine* 36 (1), pp. 13-26
- Boynton, P.M. and Greenhalgh, T. (2004) Selecting, designing and developing your questionnaire. *British Medical Journal*. 328, pp. 1372-1375
- Boynton, P.M. (2004) Administering, analysing, and reporting your questionnaire. *British Medical Journal*. 328, pp. 1372-1375
- Boynton, P.M. (2005) *The research companion: a practical guide for the social and health sciences*. Taylor and Francis :London.
- Boynton, P.M., Wood, G.W. and Greenhalgh, T. (2004) Reaching beyond the white middle classes. *British Medical Journal*. 328, pp. 1433-1436
- Bradley, F., Wiles, R., Kinmonth, A.L., Mant, D. and Gantley, M. (1999) Development and evaluation of complex interventions in health services research: Case study of the Southampton Heart Integrated Care Project (SHIP). *British Medical Journal*., 318, pp. 711-715
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3 (2), pp. 77-101.
- Brook, S. and Crouch, R. (2004) Doctors and nurses in emergency care: where are we now? *Trauma* 6, pp. 211-216

- Brook ,S. and Rushforth, H. (2011) Why is the regulation of advanced practice essential? *British Journal of Nursing*. 20 (16), pp. 996-1000
- Brown, C., Hofer, T., Johal, A., Thomson, R., Nicholl, J., Franklin, BD. and Lilford ,RJ. (2008) An epistemology of patient safety research: A framework for study design and interpretation. Part 1: Conceptualising and developing interventions. *Quality and Safety in Health Care*. 17, pp. 158-162
- Bryman, A. (2006) Paradigm peace and the implications for quality. *International Journal of Social Research Methodology*. 9, pp. 111-126
- Buchanan, DR. (1992) An uneasy alliance: Combining qualitative and quantitative research methods. *Health Education Quarterly*. 19 (1), pp. 117-135
- Burnett, MG. and, Grover, SA. (1996) Use of the emergency department for non-urgent care during regular business hours. *Canadian Medical Association*. 154 (9), pp. 1345-1362
- Bursch, B., Beezy, J. and Shaw, R. (1993) Emergency Department satisfaction: What matters most? *Annals of Emergency Medicine*. 22 (3), pp. 586-591
- Burnard, P.( 1991). A method of analysing interview transcripts in qualitative research. *Nurse Education Today* 11 (6), pp.461–466.
- Burns, N. and Grove, SK. (1999) *Understanding Nursing Research* (2<sup>nd</sup> ed). WB Saunders Company: Philadelphia.
- Burns, KEA., Duffett, M., Kho, ME., Meade, MO., Adhikari, NKJ., Sinuff T., Cook, D. (2008) A guide for the design and conduct of self-administered surveys of clinicians. *Canadian Medical Association Journal*. 179 (3), pp. 245-252.
- Burr, V. (2003) *Social Constructionism*. (2nd ed) Routledge: Hove
- Byrne, G., Richardson, M., Brunson, J. and Patel, A. (2000a) Patient satisfaction with emergency nurse practitioners in A&E. *Journal of Clinical Nursing*. 9, pp. 83-93
- Byrne, G., Richardson, M., Brunson, J. And Patel, A. (2000b) An evaluation of the care of patients with minor injuries in emergency settings. *Accident & Emergency Nursing* 8, pp. 101-109.
- Cairo ,MJ. (1996). Emergency physicians' attitudes toward the emergency nurse practitioner role: validation versus rejection. *Journal American Academy Nurse Practitioners*. 8, pp. 411-417.
- Cameron A & Masterson A (2003) Reconfiguring the Clinical Workforce. In: Davies C (ed) *The Future Health Workforce*. Palgrave Macmillan: Basingstoke

- Carlsen, .B and Glenton, C .(2011) A methodological study of sample-size reporting in focus group studies. *BMC Medical Research Methodology* [online] 11:26 <http://www.biomedcentral.com/1471-2288/11/26> [Accessed 10 May 2013]
- Carr, BG., Branas, CC., Metlay, JP., Sullivan, AF. and Camargo, CA. (2009) Access to emergency care in the United States. *Annals of Emergency Medicine*. 54, pp. 261–269.
- Carr, ECJ. and Worth, A. (2001) The use of telephone interview for research. *Nursing Times Research*. (6), pp. 511-524
- Carrier, J and Kendall, I. (1995) Professionalism and interprofessionalism in health and community care: some theoretical issues. In *Interprofessional Issues in Community and Primary Health Care*. (Owens, P., Carrier, J. and Horder, J., eds), Macmillan, London. Pp. 9-36
- Carson, D., Clay, H. and Stern, R.(2012). *Urgent Care Centres – What works best? A review of urgent care centres*. Primary Care Foundation, London, UK
- Carter, AJE. and Chochinov, AH. (2007) A systematic review of the impact of nurse practitioners on cost, quality patient care, satisfaction and wait times in the ED *Canadian Journal of Emergency Medicine* .9 (4), pp. 286-95
- Carter, S. and Henderson, L. (2005) Approaches to qualitative data collection in social science in: Bowling A, Ebrahim S, eds. *Handbook of Health Research Methods: Investigation, Measurement and Analysis*. Open University Press: Buckingham:pp. 219-29
- Cavanagh, S. (1997). Content analysis: concepts, methods and applications. *Nurse Researcher*, 4(3), pp. 5-16
- Chalder, M., Sharp, D., Moore, L. and Sailsbury, C .(2003) Impact of NHS walk in centres on the workload of other local healthcare providers: time series analysis. *BMJ Primary Care* 326. <http://www.bmj.com/content/326/7388/532.reprint?maxtoshow=&HITS=80&hits=80&RESULTFORMAT=&fullt> [accessed 13/01/13]
- Chamberlain, JM., Lillis, K., Vance, C., Brown, KM., Fawumi, O., Nichols, S., Davis, CO., Singh, T.and Baren, J. (2009) Perceived challenges to obtaining informed consent for a time-sensitive emergency department study of pediatric status epilepticus: Results of two focus groups. *Academic Emergency Medicine*. 16, pp.763–770
- Chang, E., Daly, J., Hawkins, A., McGirr, J., Fielding ,K., Hemmings, L., O'Donoghue, A. and Dennis, M. (1999) An evaluation of the nurse practitioner role in a major rural emergency department. *Journal of Advanced Nursing*. 30, pp. 260-268
- Chapple, A., Roger, A., Macdonald, W. and Sergison, M. (2000) Patients perceptions of changing professional boundaries and the future of nurse led services. *Primary Health Care Research and Development*. 1, (1), pp. 51-59

Chartered Society of Physiotherapy (2008) *Scope of Physiotherapy Practice 2008. Information Paper No PD001*. The Chartered Society of Physiotherapy:. London

Clark, e A .(2000) Advanced nursing practice. *An Bord Altranaia New 12* (winter Edition) 4.

Clavan, S. and Roba,k N. (1980) Choosing to become a physician. Contemporary views and women students. *The social science forum An Interdisciplinary Journa.l* (3), pp. 1

Cole, FL. and Ramirez, E. (2000) Nurse Practitioner autonomy in a clinical setting. *Emergency Nurse*. 7, pp. 26-30

College of Emergency Medicine (2011) *Emergency Department Clinical Quality Indicators. A CEM guide to implementation*. Available at <http://www.collemergencymed.ac.uk/Shop-Floor/Professional%20Standards/Further%20Resources/Quality%20Indicators/default.asp> [accessed 10 April 2013]

College of Emergency Medicine (2012). *Crowding in Emergency Departments*. Available at: <http://www.collemergencymed.ac.uk/code/document.asp?ID=6296> [(accessed 1st November 2012)]

College of Emergency Medicine. *Emergency Medicine Taskforce Interim Report*. (2012). Available from <http://secure.collemergencymed.ac.uk/code/document.asp?ID=6723> [Accessed 5 Dec 2012].

Colligan ,M., Collins, C., Foley, B., Jones, P., Miles, J. and Zeng, I, (2011) Emergency nurse practitioners: do they provide an effective service in managing minor injuries, compared to emergency medicine registrars? *The New Zealand Medical Journal* .124 (1344), pp. 74-80

Considine, J., Martin, R., DeVilliers, S., Jenkins, J. and Winter, C. (2006) Defining the scope of practice of the emergency nurse practitioner role in a metropolitan emergency department. *International Journal of Nursing Practice*. 12, pp. 205-213

Cook, LS., White, JL., Stuart, GCE. and Magliocco, AM. (2003) The reliability of telephone interviews compared with in-person interviews using memory aids. *Annals of Epidemiology*. (13) 7, pp. 495-501

Cook, LS., White, JL., Stuart, GCE. and Magliocco, AM. (2003) The reliability of telephone interviews compared with in-person interviews using memory aids. *Annals of Epidemiology*. (13) 7, pp. 495-501

Cooke, M., Fisher, J., Dale, J., McLeod, E., Szcsepura, A. and Walley, P. (2004) *Reducing attendances and waits in emergency departments: a systematic review of present innovations*. NCCSDO: London



- Cooke, MW., Wilson, S. and Pearson, S. (2002) The effect of a separate stream for minor injuries on accident and emergency department waiting times. *Emergency Medicine Journal*. 19 (1), pp. 28-30
- Cooper, NA. (2003) *Diversity and effectiveness of emergency nurse practitioner services in Scotland*. Unpublished PhD thesis.
- Cooper, NA., Lindsay, GM., Kinn, S., Swann, I. (2002) Evaluating emergency nurse practitioner services: A randomised controlled trial. *Journal of Advanced Nursing*. 40, pp. 721-730
- Cooper, S. and Endacott, R. (2007) Generic qualitative research: a design for qualitative research in emergency care? *Emergency Medicine Journal*. 24 (12), pp. 816-819
- Cooper, S., Porter, J. and Endacott, R. (2010) Mixed methods research: a design for emergency care research? *Emergency Medicine Journal* . 28(8), pp.682-5
- Coopers & Lybrand Health Practice (1996) *Nurse Practitioner Evaluation report*. Cooper & Lybrand: London.
- Corbett ,G. and McGuigan, T. (2008) Patient Satisfaction. *Emergency Nurse*. 16 (3), pp. 26-35
- Costly, C., Elliott, GC., Gibbs, P. (2010) *Doing work based research: Approaches to enquiry for insider research*. Sage: CA
- Council for healthcare regulatory excellence (CHRE) (2009) *Advanced Practice: Report to the four UK Health Departments*. CHRE: London
- Courtney, M. and Carey, N. (2008) Nurse independent prescribing and nurse supplementary prescribing practice. *Journal of Advanced Nursing*. 61 (3), pp. 291-299
- Crabtree, BF. and Miller, WL. (1992) *Doing Qualitative Research*. Sage: CA
- Creswell, J. (2003) *Research Design: Qualitative. Quantitative, and mixed methods approaches* (2<sup>nd</sup> ed). Sage: CA
- Creswell, JW. (2011) Controversies in Mixed Methods Research in NK, Denzin. & YS, Lincoln .(eds) *The Sage handbook of qualitative research* (4<sup>th</sup> ed) p269 -283). Sage: CA
- Creswell, JW., Klassen, AC., Plano Clarke, VL. and Clegg Smith, K. (2011) *Best Practices for Mixed Methods Research in the Health Services*. Office of Behaviour and Social Sciences Research
- Crinson, I.(1995) Impact of the patients charter on A&E departments 2: the emergency nurse practitioner. *British Journal of Nursing*. 11 4 (22), pp. 1321-5
- Currie, J. and Crouch, R .(2008) How far is too far? Exploring the perceptions of the professions on their current and future roles in emergency care. *Emergency Medicine Journal*. 25 (6), pp. 335-339

Currie, J., Edwards, L., Colligan, M. and Crouch, R. (2007) A time for international standards?: Comparing the emergency nurse practitioner in the UK, Australia and New Zealand. *Accident and Emergency Nursing*. 15, pp. 210-216

Daker-White, G., Carr, AJ. and Harvey, I. (1999) A randomised controlled trial. Shifting the boundaries of doctors and physiotherapists in orthopaedic outpatients departments. *Journal of Epidemiology Community Health* .53, pp. 643-50.

Davies, C. (1995) *Gender and the Professional Predicament in Nursing*. Open University: Buckingham

Decker, SL. (2009) Changes in Medicaid physicians fees and patterns of ambulatory care. *Inquiry*. 46, pp. 291-304

Denzin, N. and Lincoln, Y .(1994) *Handbook of qualitative research*. Sage: CA

Department of Health (1997) *The new NHS modern, dependable*. Crown copyright: London

Department of Health (1999) *Making a difference: strengthening the nursing, midwifery and health visiting contribution to health and healthcare*. Crown copyright: London

Department of Health (2000) *The NHS Plan*. Crown copyright: London

Department of Health (2001) *Reforming emergency care*. Crown copyright: London

Department of Health (2002) *Liberating the talents: helping primary care trusts and nurses to deliver the NHS plan*. Crown copyright: London

Department of Health (2003). *Freedom to practise: exploding the myths*. Crown copyright: London

Department of Health (2006). *Modernising nursing careers – setting the direction*. Crown copyright: London

Department of Health (2008a) *A Guide to Patient and Public Involvement in Urgent Care*. Crown copyright: London

Department of Health (2008b) *High quality care for all – NHS Next stage review final report*. Crown copyright: London

Department of Health (2008c) Modernising Medical Careers available from <http://www.publications.parliament.uk/pa/cm200708/cmselect/cmhealth/25/25i.pdf>. [accessed 26/05/13]

Department of Health (2010) *Advanced Level Nursing: A Position Statement*. Crown copyright: London

Department of Health (2011) *Enabling Excellence: Autonomy and Accountability for healthcare workers, social workers and social care workers*. The Stationary Office HMSO: London

- Department of Health (2012) *Transforming care: A national response to Winterbourne view Hospital. Department of Health Review: Final Report*. DH: London
- Department of Health (2013) *The NHS Constitution*. DH: London
- Dinh, M., Walker, A., Parameswaran, A. and Enright, N. (2012) Evaluating the quality of care delivered by an emergency department fast track unit with both nurse practitioners and doctors. *Australasian Emergency Nursing Journal*. 15, pp. 188-194
- Dolan, B., Dale, J. And Morley, V. (1997) Nurse Practitioners: role in A&E and primary care. *Nursing Standard* 11 (17), pp.33-38
- Dolan, J. (1973) *Nursing in Society*. Saunders: Philadelphia.
- Donovan, JL., Mills, N. and Smith, M. (2002) Improving the design and conduct of randomised trials by embedding them in qualitative research: the ProtecT study. *British Medical Journal* 325, pp. 766-70
- Dormandy, E., Brown, K., Reid, EP. and Marteau, TM. (2008) Towards socially inclusive research: An evaluation of telephone questionnaire administration in a multilingual population. *BMC Medical Research Methodology*. 8:2. [Available from <http://www.biomedcentral.com/1471-2288/8/2>] [Accessed 10 May 2012]
- Dr Foster Hospital Guide (2012) Available from <http://www.drfoosterhealth.co.uk> [accessed on 21/03/13]
- Duffy, ME. (1985) Designing nursing research: the qualitative-quantitative debate. *Journal of Advanced Nursing* 10, pp. 225-232
- Duggleby, W. (2005) What about focus group interaction data? *Qualitative Health Research*. 15 (6), pp. 832-840
- Dunn, L.(1997) A literature review of advanced clinical nursing in the USA. *Journal of Advanced Nursing* 25, pp.814-819
- Edwards, P. Roberts, I. Clarke, M. DiGusieppi, C. Pratap, S. Wentz, R. and Kwan, I. (2002) Increasing response rates to postal questionnaires: systematic review. *BMJ* 324, pp1183.
- Elderkin-Thompson, V. And Waitzkin, H. (1999) Differences in clinical communication by gender. *Journal of General Internal Medicine*. 14 (2), pp.112-121
- Elmqvist, C., Fridlund, B. and Ekebergh, M. (2011) On a hidden game board: the patients first encounter with emergency care at the emergency department. *Journal of Clinical Nursing*. 21 (17-18), pp. 2609-2616
- Ely, M. with Anzul, M., Friedman, T., Garner, D. and Steinmetz, A. (1991) *Doing Qualitative Research: Circles within Circles*, Falmer: London
- Eraut, M. (1985) Knowledge and creation and knowledge use in professional contexts. *Studies in Higher Education* 10 (2), pp. 117-133

- Eze, N., Lo, S. and Toma, A. (2005) Advice given to patients with epistaxis by A&E doctors. *Emergency Medicine Journal* 22, pp:724-725
- Fatorich DM, Hirsch RL (2003) Entry overload, emergency department overcrowding, and ambulance bypass. *EMJ* 20 (5) pp 406-409
- Ferrandes, A. (2011) *Guidance for commissioning integrated urgent and emergency care. A whole systems approach*. Royal College of General Practitioners Centre for Commissioning
- Fisher, J., Steggall, M. and Cox, C. (2006) Developing the A&E nurse practitioner role. *Emergency Nurse* 13 (10), pp. 26-31
- Forgeron, P. And Martin-Misener, R. (2005) Parents intentions to use paediatric nurse practitioner services in an emergency department. *Journal of Advanced Nursing* 52 (2), pp. 231-238
- Fotheringham, D. (2013) Confident to seek help: The development of skill and judgement in nurse practitioners. A mixed methods study. *Nurse Education Today*. 33 (7), pp. 701-708
- Fotheringham, D., Dickie, S. and Cooper, M. (2011) The evolution of the ENP on Scotland. *Journal of Clinical Nursing*. 20, pp. 2958-2967
- Fowler, F.J. (1995) *Improving Survey Questions; design and evaluation*. Applied Social research methods series. Sage: London.
- Foucault, M. (1981). The order of discourse. In R. Young (Ed) (1981), *Untying the text: a post-structural anthology* (pp. 48-78). Routledge & Kegan Paul: Boston
- Fox, D. (1982) Techniques for the analysis of quantitative data. *The research process in education*. Holt, Rinehart & Winston: New York
- Francis, R. (2013) *Independent Inquiry into the care provided by Mid Staffordshire Foundation Trust* available at: [http://www.midstaffsinquiry.com/assets/docs/Inquiry\\_Report-Vol1.pdf](http://www.midstaffsinquiry.com/assets/docs/Inquiry_Report-Vol1.pdf) (accessed 26/05/13)
- Freeman, T. (2006) 'Best practice' in focus group research: making sense of different views. *Journal of Advanced Nursing*. 56 (5), pp. 491-497
- Freidson, E. (1988) *Profession of Medicine: A study of the Sociology of Applied Knowledge*. University of Chicago Press: Chicago
- Freij, RM., Duffy, T., Hackett, D., Cunningham, J. and Fothergill, J. (1996) Radiographic interpretation by nurse practitioners in a minor injuries unit. *Journal of Accident and Emergency Medicine*. 13 (1), pp. 41-43
- Fry, M. and Stainton, C. (2005) An educational framework for triage nursing based on gatekeeping, timekeeping and decision making processes. *Accident & Emergency Nursing* 13 (4), pp. 214-219

- Fulop, N., Allen, P., Clarke, A. and Black, N. (2001) Issues in studying the organisation and delivery of health services. In *Studying the organisation and delivery of health services Research methods*. Edited by N, Fulop., P Allen., Clarke., A. and Black N. Routledge; London.
- Ganley, L. and Gloser, AS. (2011) An overview of triage in the emergency department. *Nursing Standard* 26 (12), pp. 49-56
- Gardner, G., Chang, A. and Duffield, C. (2007) Making nursing work: breaking through the confusion of advanced practice nursing. *Journal of Advanced Nursing*. 57 (4), pp. 382-391
- Gibbs, A. (1997) *Focus Groups*. Social Research Update. University of Surry. Issue 19
- Giddens, A (1990). *The consequences of modernity*. Stanford University Press: San Francisco
- Gillespie, D.F. & Perry, R.W. (1975) Survey return rates and questionnaire appearance. *Austr NZJ Sociol* 11, pp. 71-2.
- Glesne, C. and Peshkin, A. (1992) *Becoming qualitative researchers: An introduction*. Longman: New York
- Glogowska, M. (2011) Paradigms, pragmatism and possibilities: mixed methods research in speech and language therapy. *International Journal of Language & Communication Disorders* 46 (3), pp. 251-260
- Goldman, RD., Kapoor, A. and Mehta, S. (2011) Children admitted to the hospital after returning to the emergency department within 72 hours. *Pediatric Emergency Care*. 27 (9,) pp. 808-811
- Goldman, RD., Ong, M. and Macpherson, A. (2006). Unscheduled return visits to the paediatric emergency department-one year experience. *Pediatric Emergency Care*. 22(8),pp. 545 549
- Gould, D. and Fontenia, M. (2006) Strategies to recruit and retain the nursing workforce in England: A telephone interview study. *Journal of Research in Nursing*. 11 (3), pp. 3-17
- Graber, M., Gordon, R. And Franklin, N. (2002) Reducing diagnostic errors in medicine; what's the goal? *Academic Medicine* 77 (10), pp. 981-992
- Greer, T.V. & Lohitia, R. (1994) Effects of source and paper colour on response rates in mail surveys. *Ind Marketing Manager*. 23, pp. 47-54.
- Griffin, M. and Melby, V. (2006) Developing an advanced nurse practitioner service in emergency care: attitudes of nurse and doctors. *Journal of Advanced Nurisng*. 56 (3), pp. 292-301
- Guba, EG. and Lincoln, YS. (2005) Paradigmatic controversies, contraindications and emerging confluences. In NK Denzin & YS Lincoln (eds) *The Sage handbook of qualitative research* (3<sup>rd</sup> ed) p191-215). Sage: Thousand Oaks, CA

- Halpern, S.D., Ubel P.A., Berlin, J.A. and Asch, D.A. (2002) Randomised trial of \$5 versus \$10 monetary incentives, envelope size, and candy to increase physician response rates to mailed questionnaires. *Med Care* 40, pp. 834-9.
- Halter, M., Marlow, T., Mohammed, D. and Ellison, G. (2007) A patient survey of out-of-hours care provided by emergency care practitioners. *BMC Emergency Medicine* 7:4. [Available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1913059/>] [accessed 10 May 12]
- Hall, J.A. and Dornan, MC. (1988) Meta-Analysis of satisfaction with medical care: Description of research domain and analysis of overall satisfaction levels. *Social Science and Medicine*. 27 (6), pp. 637-644
- Hall, J. And Roter, DL. (1988) Meta-analysis of correlates of provider behaviour in medical encounters. *Medical Care*. 26, pp.651-653
- Hall, J.A., Irish, J.T., Roter, DL., Ehrlich, CM. And Miller, LH. (1994) Gender in medical encounters: an analysis of physician and patient communication in a primary care setting. *Health Psychology*. 13, pp.384-392
- Han, J., France, DJ., Zhong, A., Jones, I., Storrow, P. and Aronsky, D. (2007) The effect of emergency department expansion on emergency department overcrowding. *Academic Emergency Medicine* 14 (4), pp. 338-343
- Harris, R., Kelly, D., Hunt, J.A., Plant, H., Kelley, K., Richardson, A. and Sitzia, J. (2008) Accessing elite nurses for research: reflections on the theoretical and practical issues of telephoning interviews. *Journal of Research in Nursing*. (13), pp. 236-248
- Hart, L. and Mirabella, J. (2009) A patient survey on emergency department use of nurse practitioners. *Advanced Emergency Nurse Journal*. 31 (3), pp.228-35
- Hastings, SN., Schmader, KE., Sloane, RJ., Weinberger, M., Goldberg, KC. and Oddone, EZ. (2007) Adverse health outcomes after discharge from the emergency department – incidence and risk factors in a veteran population. *Journal of General Internal Medicine* 22 (11), pp: 1527-31
- Haughey, BP. (1994) Evaluating quantitative research designs : part 2. *Critical Care Nurse* Dec, pp. 169-172
- Head, S.(1988) Nurse practitioners: the new pioneers. *Nursing Times* 84, pp. 27-28
- Headrick, LA., Wilcock, PM. and Batalden, PB. (1998) Interprofessional working and continuing medical education. *BMJ* 316, pp. 771-774
- Healthcare Commission (2008) *Not just a matter of time: a review of urgent and emergency care*. Available at: <http://www.weh-ct.nhs.uk/hcc-report.pdf> [accessed 13 May 2013]
- Hicks, C. (1998) The randomised controlled trial: a critique. *Nurse Researcher* 6 (1), pp. 19-32

- Hocking, JS., Lim, MSC., Read, T. and Hellard, M. (2006) Postal surveys of physicians gave superior response rates over telephone interviews in a randomised trial. *Journal of Clinical Epidemiology*. 59, pp. 521-524
- Holmes, CA., (2006 July) *Mixed (up) methods, methodology and interpretive frameworks*. Paper presented at the Mixed methods Conference, Cambridge, UK
- Hoot, NR. and Aronsky, D. (2008) Systemic review of emergency department crowding: causes, effects and solutions. *Annals of Emergency Medicine* 52 (2), pp. 126-136
- Horman, DJ., Campbell, JD. and DeGregory, JL. (1987) Gender and the Attribution of the Nurse Practitioner and Physician Status. *Medical Care* 25 (9), pp. 847-855
- Horrocks, S., Anderson, E. and Salisbury, C. (2002) Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors. *British Medical Journal* 324, 819-824
- Hoskins, R. (2010) Evaluation of new roles in emergency care. *International Emergency Nursing*. 19(3), pp.125-140
- Hoskins, R. (2012) Interprofessional working or role substitution? A discussion of the emerging roles in emergency care. *Journal of Advanced Nursing*. 68 (8), pp.1894-1903
- Hoskins, R. and Bengler, J. (2013) What is the burden of alcohol related injuries in an inner city emergency department? *Emergency Medicine Journal*. 30, [available at <http://emj.bmj.com/content/30/3/e21>] [Accessed 20 Jan 2013]
- Hoskins, R., Salmon, D., Binks, S., Moody, H. and Bengler, J. (2005) A study exploring drug use and management of patients presenting to an inner city emergency department. *Accident and Emergency Nursing*. 13, pp.147–153.
- Hourigan, PG. and Weatherley, CR. (1995) The physiotherapist as orthopaedic assistant in a back pain clinic. *Physiotherapy*. 81, pp. 546-548
- Houtkoop-Streenstra, H. (2000) *Interaction and the standardised survey interview: the living questionnaire*. Cambridge University Press: Cambridge
- Howe, KR. (2004) A critique of experimentalism. *Qualitative Inquiry*. 10, pp. 42-61
- Hoyt, SK. and Proehl, JA. (2010) Nurse Practitioners in emergency care: filling the workforce gap. *Advanced Emergency Nursing Journal* 32 (4,) pp .285-288
- Hughes, D. (1988) When nurse knows best: some aspects of nurse/doctor interaction in a casualty department. *Sociology of Health and Illness*, 10 , pp. 1–22
- Hughes J (2005) Advanced practice roles in primary care: a critical discussion of the policy and practice implications. *Work Based Learning in Primary Care* 3, 119-128 in distracting settings: The effects of aging. *Psychology and Aging*, 15, pp. 110–125.
- Iglesia, C.P. & Torgerson, D.J. (2000) Does length of questionnaire matter? A randomised trial of response rates to a mailed questionnaire. *J Health Services Res Policy*, 5 pp. 219-21.

Institute for Clinical Evaluative Sciences (ICES) (1999) *Focus Groups in Health Services Research* . Institute for Clinical Evaluative Sciences: Ontario

International Council of Nurses (2008) *Definition and characteristics of the role International Council of Nurses*. Available at: <http://icn-apnetwork.org/> [accessed on 5<sup>th</sup> May 2012]

James, J. and Bloomer, M. (2003) Educational research in educational practice. *Journal of Further and Higher Education* 27 (3), pp. 248-256

James, MR. and Pyrgos, N. (1989) Nurse Practitioners in the A&E department. *Emergency Medicine Journal*. 6, pp. 241-246

Janssen, SM. And Lagro-Janseen, ALM. (2012) Physicians, gender, communication style, patient preferences and patient satisfaction in gynaecology and obstetrics: A systematic review. *Patient Education and Counselling*. 89 (2), pp221-226

Jarvis, M. (2007) Satisfaction guaranteed? *Emergency Nurse* 14 (9), pp. 34-39

Jennings, N., Lee, G., Chao, K. and Keating, S. (2009) A survey of patient satisfaction in a metropolitan emergency department: Comparing nurse practitioners and physicians. *International Journal of Nursing Practice* .15, pp. 213-10

Jinks, AM. and Bradley, E. (2004) Angel, handmaiden, battleaxe or whore? A study which examines changes in newly recruited student nurses attitudes to gender and nursing stereotypes. *Nurse Education Today*. 24, pp .121-127

Jobber, D. & Sanderson, S. (1983) The effects of a prior letter and coloured questionnaire paper on mail survey response rates. *J Market Res Soc* 25, pp. 339-49.

Johnson, RB. and Onwuegbuzie, AJ. (2004) Mixed methods research: A research paradigm whose time has come. *Educational Researcher*. 33, pp. 14-26

Johnson RB, Onwuegbuzie AJ, Turner LA (2007) Toward a definition of mixed methods research. *Journal of Mixed Methods Research* , 1 (2), 112-133

Johnstone, PL.(2004) Mixed methods, mixed methodology health services research in practice. *Qualitative Health Research*. 14(2), pp. 259-271

Jones, NP., Hayward, JM., Khaw, PT., Claoue, CMP. and Elkington, AR.(1986) Function of an ophthalmic accident and emergency department: results of a six month survey. *British Medical Journal*. 292, pp. 188-190

Jones, R. (2011) Hospital bed occupancy demystified. *British Journal of Healthcare Management*. 17 (6,) pp.242-248

Joseph, A. (1986) *Uniforms and non uniforms: Communication through clothing*. Greenwood Press: New York.

Katz, DA., Williams, GC., Brown, R.L, Aufderhelde, TP., Bogner, M., Rahko, PS. and Selker, HP. (2005) Emergency Physicians fear of malpractice in evaluating patients with possible acute cardiac ischemia. *Annals of Emergency medicine*. 46 (6), pp. 525-533



- Keating, S., Thompson, J. and Lee, G. (2010) Perceived barriers to the sustainability and progression of nurse practitioners. *International Emergency Nursing* 18, pp. 143-153
- Kelly, AM. (2000) Patient satisfaction with pain management does not correlate with initial or discharge VAS pain score, verbal pain rating at discharge, or change in VAS score in the emergency department. *Journal of Emergency Medicine*. 19, pp.113-116
- Keltie, D., Dyson, J. and Greaves, J. (1997) Emergency Nurse Practitioners: the case for and against. *A&E Focus* .6, pp. 8-10
- Kendrick, D., Lyon, R., Christie, N., Towner, E., Bengler, J., Groom, L., Coffey, F., Miller, P. and Murphy, R. (2007) Recruiting participants for injury studies in emergency departments. *Injury Prevention*. 13, pp. 75–77
- Kennedy, I. (2001) *Learning from Bristol: The Report of the Public Inquiry into Children's Heart Surgery at the Bristol Royal Infirmary 1984-1995*. TSO: London
- Kennedy, M., MacBean, C.E., Brand, C., Sundararajan, V. & McD Taylor, D. (2008), "Review article: leaving the emergency department without being seen", *Emergency Medicine Australasia*. 20, (4), pp. 306-313.
- Kidd, PS. and Parshall, MB. (2000) Getting the focus and the group: enhancing analytical rigor in focus group research. *Qualitative Health Research*. 19 (3), pp. 293-308
- Kings Fund (2011a) *The Future of Leadership and Management in the NHS- No more heroes: Report from the Kings Fund Commission on leadership and Management in the NHS*. The Kings Fund: London
- Kings Fund (2011b) *Reconfiguring Hospital Services Briefing September*. Available at <http://www.kingsfund.org.uk/publications/articles/briefing-reconfiguring-hospital-services> [Accessed 27/05/13]
- Kings Fund (2013) *Urgent and Emergency Care. A review for NHS South England*. Kings Fund: London
- Kirsch, SED. and Brandt, PA. (2002) Telephone interviewing: a method to reach fathers in family research. *Journal of Family Nursing*. 8 (1), pp. 73-84
- Kitzinger, J. (1994) The methodology of focus group interviews: the importance of interaction between research participants. *Sociology of Health and Illness*. 16, pp. 103-121
- Kitzinger, J. (1995) Qualitative research: introducing focus groups. *British Medical Journal* 311, pp.299-302
- Knipschild, P. (1993) Trials and errors. *British Medical Journal* .306, pp 1706-1707
- Knowles, E., O'Cathain, A. and Nicholl, J. (2011) Patients experiences and views of an emergency and urgent care system. *Health Expectations*. 15, pp. 78-86

- Kreuger, RA. and Casey, MA. (2008) *Focus groups. A practical guide for applied research*. [4<sup>th</sup> ed] Sage: London
- Kreuger, RA. (1988) *Focus Groups: A Practical Guide for Applied Research*. Sage: London
- Kuan, WS. and Madhadevan, M. (2009). Emergency unscheduled returns: can we do better? *Singapore Medicine Journal* 50 (11), pp. 1068-71
- Kuhn, TS. (1970) *The structure of scientific revolutions* (2<sup>nd</sup> ed) University of Chicago Press: Chicago
- Laming, Lord (2003) *Inquiry into the Death of Victoria Climbié*. TSO: London
- Laming, Lord (2009) *The Protection of Children in England: A Progress Report*. TSO: London
- Landman, J. and Manis, M. (1983) Social cognition: some historical and theoretical perspectives. In Berkowitz L ed. *Advanced in experimental social psychology*. 16. Academic Press: Orlando, Florida
- Langridge, JC. and Moran, CJ. (1994) A comparison of two methods of managing patients suffering from rheumatoid arthritis. *Physiotherapy* 80, pp. 109-13
- Larkin, GL. and Hooker, RS. (2010) Patient willingness to be seen by physician assistants, nurse practitioners, and residents in the emergency department: does the presumption of assent have an empirical basis? *The American Journal of Bioethics* 10 (8,) pp. 1-10
- Lattimer, V., Sharp, D. and Salisbury, C. (2007) [Comparing care at walk-in centres and at accident and emergency departments: an exploration of patient choice, preference and satisfaction.](#) *Emergency Medical Journal*. 24 (4), pp. 260-264
- Laurent, M., Reeves, D., Hermens, R., Braspenning, J., Grol, R. and Sibbald, B. (2005) *Substitution of doctors by nurses in primary care*. Cochrane Database Systematic Review April 18 (2) CD 001271
- Lawler, J. (1998) Phenomenologies as research methodologies for nursing: From philosophy to researching practice. *Nursing Inquiry* 5 (2), pp. 104-111
- Lee, G., Jennings, N., & Bailey, M. (2007). An exploration of staff knowledge on the nurse practitioner's role in the emergency department. *Accident and Emergency Nursing*, 15, pp. 79-87.
- Leudar, I. & Antaki, C. (1997) Participant status in social psychological research. In: Ibanez, T. & Iniguez, L. (eds) *Critical social psychology*. Sage: London.
- Lewy, L. (2010) The complexities of interprofessional learning/working: Has the agenda lost it's way? *Health Education Journal*. 69 (1), pp. 4-12
- Lincoln, Y .and Guba, E. (1985) *Naturalistic Inquiry*. Sage: Beverly Hills. CA

- Livesley, J., Waters, K. and Tarbuck, P. (2009) The management of advanced practitioner preparation: a work-based challenge. *Journal of Nursing Management*. 17, pp. 584-593
- Lowe, G., Plummer, V. and Boyd, .L (2013) Nurse Practitioner Roles in Australian healthcare settings. *Nursing Management*. 20 (2), pp. 28-34
- Lowe, G. (2010). Scope of emergency nurse practitioner practice: where to beyond clinical practice guidelines?. *Australian Journal Of Advanced Nursing*, 28(1), pp. 74-82.
- Mabrook, A. and Dale, B. (1998) Can nurse practitioners offer a quality service? An evaluation of a years work of a nurse led minor injury unit. *Journal of Accident & Emergency Medicine*. 15, pp. 266-268
- Maclaine, K. (1998) Clarifying higher level roles in nursing practice. *Professional Nurse* 14 (3), pp.159-163
- Margaret, ND., Clark, TA., Warden. CR., Magnusson, AR. and Hedges, JR. (2002) Patient satisfaction in the emergency department- A survey of pediatric patients and their parents. *Academic Emergency Medicine*. 9 (12), pp.1379-1388
- Marcus, A. & Crane, L. (1986) Telephone Surveys in public health research. *Medical Care* 24 (2), pp. 97-112
- Marr, A., Steele, K., Swallow, V., Craggs, S., Procter, S., Newton, J., Sen, B. and McNabb, A. (2003) Mapping the range and scope of emergency nurse practitioner services in the Northern and Yorkshire region: a telephone survey. *Emergency Medicine Journal* 20, pp.414-417
- Martin, R. and Considine, J. (2005). Knowledge and attitudes of ED staff before and after implementation of the emergency Nurse Practitioner role. *Australasian Emergency Nursing Journal*. 8 (3), pp. 73-78
- Martin, DK., Giacomini, M. and Singer, PA. (2002) Fairness, accountability for reasonableness and the views of priority setting decision-makers. *Health policy*. 61, pp. 279-290
- Mason, J. (2002) Qualitative Interviewing: Asking, listening and interpreting in T May (ed) *Qualitative Research in Action* pp 225-45. Sage: London
- Mason, S., Fletcher, A., McCormick S., Perrin, J. and Rigby, A .(2005) Developing assessment of emergency nurse practitioner competence- a pilot study. *Journal of Advanced Nursing*. 50 (4), pp. 425-432
- Mauksch, HO. and, Campbell, JD. (1985) Political imperatives in a stereotyping world. In: *Perspectives in Nursing – 1985-1987*. National League for Nursing: New York
- May, A. (1997) Tried and tested remedies. *Health Service Journal*. 107, 5540 pp.22
- Mays ,N. and Pope, C. (1995) Rigour and qualitative research. *British Medical Journal*. 311, pp. 251-253

- McClellan, CM., Cramp, F., Powell, J. and Bengner JR. (2013) A randomised trial comparing the cost effectiveness of different emergency department healthcare professionals in soft tissue injury management. *British Medical Journal Open* 3:e001116.doi:10.1136/bmjopen-2012-001116 [Accessed 4 Jan 2013]
- McClellan, CM., Greenwood, R. and Bengner, J. (2006) Effect of an extended scope physiotherapy service on patient satisfaction and the outcome of soft tissue injuries in an adult emergency department. *Emergency Medicine Journal*. 23, pp. 384-387
- McClellan, CM. (2009) The clinical and cost effectiveness of different emergency department healthcare professionals in the management of musculoskeletal soft tissue injuries. *Unpublished PhD Thesis*
- McCluskey, S., Williams, J., Nyawata, I D. and Topping, A. (2009) *A Sexual Health Training Needs Analysis in Kirklees: a mixed-methods design*. Project Report. University of Huddersfield, Huddersfield. (Submitted) available at <http://eprints.hud.ac.uk/6940/> [Accessed 4 June 2013]
- McConnell, D., Slevin, OD. and McIlfratrick, SJ. (2013) Emergency nurse practitioners' perceptions of their role and scope of practice: is it advanced practice? *International Emergency Nursing*. 21 (2), pp.76-83
- McColl, E., Jacoby, A., Thomas, L., Soutter, J., Bamford, J., Steen, N. (2000) Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patients. *Health Technol Ass*. 5, (31)
- McDowell, I. and MacLean, L. (1998) Blending qualitative and quantitative study methods in health services research. *Health Informatics Journal* (4), pp .15-22
- McGee, L .and Kaplan, L. (2007) Factors influencing the decision to use nurse practitioners in the emergency department. *Journal of Emergency nursing*. 33 (5), pp. 441-446
- McGoldrick, C., Damkct-Thomas, L. and Lewis, H. (2011) The impact of ENPs on referrals to a tertiary hand trauma service. *Ulster Med Journal* 80 (1), pp. 19-20
- Mc Kinstry, B. (2008) Are there too many female medical graduates? Yes. *British Medical Journal*. 336, pp. 748.
- Meek, SJ., Kendall, J., Porter, J. and Freij, RM. (1998) Can accident and emergency nurse practitioners interpret radiographs? A multicentre study. *Journal of Accident and Emergency Medicine*. 15 (2), pp.105-107
- Meek, SJ., Ruffles, G., Anderson, J. and Ohiorenoya, D. (1995) Nurse Practitioners in major A&E departments: A national survey. *Journal of A&E Medicine*. 12(3), pp. 177-181

- Meeuwesen, L., Schhap, C. And Staak van der, C. (1991) Verbal analysis of doctor-patient communication. *Social Science and Medicine*. 32, pp.1143-1150
- Megahy, A .and Lloyd, M. (2004) Managing minor injuries. *Emergency Nurse*. 12. pp. 14-16
- Melby, V., Gillespie, M. and Martin, S.(2010). ENPS: The views of patients and hospital staff at a major acute trust in the UK. *Journal of Clinical Nursing*. 20, pp.236-246
- Miers, M. (2010) Professional Boundaries and Interprofessional Working In: Pollard KC, Thomas J & Miers M (2010) *Understanding Interprofessional Working in Health and Social Care*. Palgrave Macmillan: Hampshire
- Middleton, S., Gardner, A., Gardner, G. (2011) The status of Australian nurse practitioners: the second national census. *Australian Health Review*. 35, pp. 448-454.
- Milbrett, P. and Halm, M. (2009) Characteristics and predictors of frequent utilization of emergency services. *Journal of Emergency Nursing*. 35, pp.191-198.
- Miles, MB. and Huberman, AM. (1984) *Qualitative data analysis: a sourcebook of new methods*. Sage: CA
- Mills, AC. and McSweeney, M. (2005) Primary reasons for ED visits and procedures performed for patients who saw nurse practitioners. *Journal of Emergency Nursing*. 31 (2), pp. 145-149
- Monk, R., Topping, A. and Newel, I R. (2013) The disconnect care management of illicit drug users in medical wards, the views of nurses and patients: a grounded theory study. *Journal of Advanced Nursing*. 69 (4), pp. 935-946
- Moran-Ellis, J., Alexander, VD., Cronin, A., Dickinson, M., Fielding, J., Slaney J. and Thomas, H .(2006). Triangulation and Integration: Processes, Claims and Implications, *Qualitative Research*, 6 (1), pp. 45-59.
- Morgan, DL. (1998) Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research*. 8 (3), pp. 362-376
- Morgan, DL. (2007) Paradigms lost and pragmatism regained: methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*. 1 (1), pp. 48-76
- Morgan, DL. (2010) Reconsidering the role of interaction in analysing and reporting focus groups. *Qualitative Health Research*. 20 (5), pp. 718-722
- Morris, ZS., Boyle, A., Beniuk, K. and Robinson, S. (2012) Emergency department crowding: towards an agenda for evidence-based intervention. *Emergency Medicine Journal*. 29, pp. 460-466

- Morse, JM. and Field, PA. (1996) *Nursing Research: The application of qualitative approaches*. Chapman and Hall: London.
- Mortimer, A. and Cooper, S. (2007) The 4-hour target: emergency nurses view. *Emergency Medicine Journal*. 24 (6), pp. 402-404
- Moser, M., Abu-Laban, R. and van Beek, C. (2004) Attitude of emergency department patients with minor problems to being treated by a nurse practitioner. *Canadian Journal of Emergency medicine*. 6 (4), pp. 246-52
- Moskop, JC., Sklar, DP., Geiderman, JM., Schears, RM. and Bookman, KJ. (2009) Emergency department crowding, part 1--concept, causes, and moral consequences. *Annals of Emergency Medicine*. 53, pp. 605-11
- Muller, U., Winterhalder, R., Businger, A., Zimmermann, H. and Exadaktylos, AK. (2012) Why do walk in patients prefer a busy urban emergency department during office hours? *Swiss Medical Weekly*. 142: w13565. [Available from <http://www.smw.ch/content/smw-2012-13565/>] [accessed 11 August 2013]
- Mundinger, MO., Kane, RL., Lenz, ER., Totten, AM., Tsai, W., Cleary, PD., Friedwald, WT., Sui, AL. and Shelanski, ML. (2000) Primary care outcomes in patients treated by nurse practitioners or physicians: a randomised trial. *Journal of the American Medical Association*. 283 (10), pp. 59-68
- Murphy, AW., Leonard, C. and Plunkett, PK. (1999). Characteristics of attenders and their attendances at an urban accident and emergency department over an one-year period. *Journal of Accident and Emergency Medicine*. 16425, pp.425-427
- Murphy, E. and Dingwall, R. (1988) Qualitative methods in health services research. In N. Black J. Brazier. R, Fitzpatrick and B. Reeves (eds), *Health Service Research Methods: A guide to Best Practice*. pp129-138 BMJ Publishing: London
- Murray, L. and Lawrence, B. (2000) *Practitioner-Based enquiry: Principles for postgraduate research*. Falmer Press: London
- Murray, SA., Tapson, J., Turbull, L., McCallum, J. and Little, A. (1994) Listening to local voices: adapting rapid appraisal to assess health and social needs in general practice. *British Medical Journal*. 308, pp. 698-700
- Musseklwhite, K., Cuff, L., McGregor, L. and King, KM. (2007) The telephone interview is an effective method of data collection in clinical nursing research: A discussion paper. *International Journal of Nursing Studies* 44, pp. 1064-107
- Nee, PA. & Griffiths, RD. (2002) Ethical considerations in accident and emergency research *Emergency Medical Journal*. 19, pp. 423-427
- Novick, G. (2008) Is there a bias against telephone interviews in qualitative research? *Research in Nursing and Health*. 31, pp. 391-398

Nuffield Trust (2010) *Trends in Emergency Admissions in England 2004-2009*. [Available from [www.nuffieldtrust.org.uk](http://www.nuffieldtrust.org.uk)] [Accessed 27/05/13]

Nunez, S., Hexdall, A. and Aguirre-Jaime, A. (2006) Unscheduled returns to the emergency department: an outcome of medical errors. *Quality Safe Health Care Journal* 15 (2), pp.102-108

Nunokoosing, K. (2005) The problems with interviews. *Qualitative Health Research*. 15 (5), pp. 698-706

Nursing and Midwifery Council (NMC) (2005) *A revision of the definition of advanced nurse practice* [available at <http://www.nmc-uk.org/Get-involved/Consultations/Past-consultations/By-year/The-proposed-framework-for-the-standard-for-post-registration-nursing---February-2005/>] [accessed 5<sup>th</sup> May 2013]

O’Cathain, A., Murphy, E. and Nicholl, JP. (2007) Why, and how, mixed methods research is undertaken in health services research: a mixed methods study. *BMC Health Services Research* 7 – [available at <http://www.biomedcentral.com/1472-6963/7/85>] [accessed 10 May 2013]

O’Cathain, A., Murphy, E. and Nicholl, JP. (2007a) Integration and publications as indicators of ‘yield’ from mixed methods studies. *Journal of Mixed Methods Research*. 1(2), pp. 147-163.

O’Cathain, A., Munro, J., Armstrong, I., O’Donnell, C. and, Heaney, D. (2007b) The effect of attitude to risk on decisions made by nurses using computerised decision support software in telephone clinical assessment: an observational study. *BMC Medical Informatics and Decision-making* 2007,7:39 [available from <http://www.biomedcentral.com/1472-6947/7/39>] [Accessed 10 May 2013]

O’Cathain, A., Murphy, E. and Nicholl, J. (2008) The quality of mixed methods studies in health services research. *Journal Health Service Research Policy*. 13( 2), pp. 92-98.

O’Cathain, A. (2009) Editorial: Mixed Methods Research in the Health Sciences: A Quiet Revolution. *Journal of Mixed Methods Research* .3, (1), pp.3-5

O’Dwyer, F. and Bodiwala, GG. (1991) Unscheduled return visits by patients to the accident and emergency department. *Archives of Emergency Medicine*. 8, pp. 196-200

O’Loughlin, K., Hacking, KA., Simmons, N., Christian, W., Syahene, R., Shamekh, A. and Prince, NJ. (2013) Paediatric unplanned reattendance rate: A&E clinical quality indicators. *Archives of Diseases in Childhood* . 98 (3), pp. 211-213

Oppenheim, AN. (1992) *Questionnaire design, interviewing and attitude measurement*. Continuum: London

Ostlund, V., Kidd, L., Wengstrom, Y. and Rowa-Dewar, N. (2011) Combining qualitative and quantitative research within mixed method research designs a methodological review. *International Journal of Nursing Studies* 48 (3), pp. 369-383

- Overton-Brown, P. and Anthony, D. (1998) Towards a partnership in care: nurses and doctors interpretation of trauma radiology. *Journal of Advanced Nursing*. 27 (5), pp. 890-896
- Patel, MX., Doku, V., Tennakoon, L. (2003) Challenges in recruitment of research participants. *Advances in Psychiatric Treatment* .9, pp. 229-238
- Patton, M. (1998) Paradigms and pragmatism. In D Fetterman (ed) *The paradigm dialog* (pp 31-45). Sage: Newbury Park CA.
- Patton, MQ. (1990) *Qualitative Evaluation and Research Methods*. Sage Publications: Newbury Park, CA
- Patton, M. (2002) *Qualitative methods and evaluation* (3<sup>rd</sup> ed). Sage: Thousand Oaks CA
- Pearson, A., Baker, H., Walsh, K. And Fitzgerald, M. (2001) Contemporary nurses uniforms- history and traditions. *Journal of Nursing Management*. 9, pp. 147-152
- Passmore, C., Dobbie, A.E., Parchman, M. (2002) Guidelines for constructing a survey. *Family Medicine*. 34, pp. 281-6.
- Pearson, S., Goldman, L. and Orav, E. (1995) Triage decisions for emergency department patients with chest pain: do physicians risk attitudes make the difference? *Journal of General Internal Medicine*. 10, pp. 557-564
- Pollard KC (2010) The Medicalization Thesis In: Pollard KC, Thomas J & Miers M (2010) *Understanding Interprofessional Working in Health and Social Care*. Palgrave Macmillan: Hampshire
- Pope, C. and Mays, N. (1995) Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *British Medical Journal*. 311, pp. 42-45.
- Powers, MJ., Jalowiec, A. and Reichelt, PA. (1984) Nurse Practitioner and physician care compared for non urgent emergency room patients. *Nurse Practitioner* 9 (2), pp 44-45
- Purdy, S. (2010) *Avoiding hospital admissions – What does the research say?* Kings Fund: London
- Redshaw, M. and Harvey, M. (2001) Education for a new role: a review of neonatal nurse practitioner programmes. *Nurse Education Today*. 21, pp.468-476
- Redsell, S., Stokes, T., Jackson, C., Hastings, A. and Baker, R. (2007) Patients accounts of the differences in nurses and general practitioners roles in primary care. *Journal of Advanced Nursing* , 57 (2), pp. 172-180
- Reed, J. and Procter, S. (1995) *Practitioner Research in Health Care: The Inside Story*. Chapman and Hall: London



Rhee, K .and Dermeyer, A. (1995) Patient satisfaction with a nurse practitioner in a university emergency service. *Annals of Emergency Medicine* .26 (2), pp. 130-132

Richardson, B. Shepstone, L., Poland, F., Mugford, M., Finlayson, B. and Clemance, N. (2005) Randomised controlled trial and cost consequences study comparing initial physiotherapy assessment and management with routine practice for selected patients in an accident and emergency department of an acute hospital. *Emergency Medicine Journal*. 22, pp. 87-92

Ritchie, J. and Lewis, J. (2003) *Qualitative research practice a guide for social science students and researchers*. Sage: London

Ritchie, JE., Herscovitch, F. and Norfor, JB. (1994) Beliefs of blue collar workers regarding coronary risk behaviours. *Health Education Research*. 9, pp.95-103

Robson, C .(2005) *Real Word Research* [2<sup>nd</sup> ed] Blackwell: Oxford

Rossman, GB. and Wilson, BL. (1985) Numbers and words: Combining quantitative and qualitative methods in a large scale evaluation study. *Evaluation Review*. 9 (5), pp.627-643

Roter, DL. And Hall, JA. (1998) Why physician gender matters in shaping the physician-patient relationship. *Journal of Women's Health*. 7 (9), pp. 1093-1097

Royal College of Nursing (2012) *Advanced Nurse Practitioners: an RCN Guide to the Advanced Nurse Practitioner Role Competencies and Programme Accreditation*. Royal College of Nursing: London

Sakr, M., Angus, L., Perrin ,J., Nixon, C., Nicholl, J. and Wardrope, J. (1999) Care of minor injuries by emergency nurse practitioners or junior doctors: a randomised controlled trial. *Lancet* 354, pp. 1319-1326

Sakr, M., Kendall, R., Angus, J., Saunders, A., Nicholl, J. and Wardrope, J. (2003) Emergency Nurse Practitioners: a three part study in clinical and cost effectiveness. *Emergency Medical Journal* 20, pp. 158-163.

Salisbury, C., Chalder, M., Manku-Scott, T., Nicholas, R., Deave, T., Noble, S., Pope, C., Moore, L., Coast, J., Anderson, E., Weiss, M., Grant, C. and Sharp, D. (2002). *The National Evaluation of NHS Walk-in Centres: Final report*. University of Bristol: Bristol

Salisbury, C., Hollinghurst, S., Montgomery, A., Cooke, C., Munro, J., Sharp, D. and Chalder, M. (2010) The impact of co-located walk in centres on emergency departments. *Emergency Medicine Journal*. 24 (4), pp. 265-269

Salisbury, C., Manku-Scott, T., Moore, L., Chalder, M. and Sharp, D. (2002) Questionnaire survey of users of NHS walk-in centres: observational study. *British Journal of General Practice*. 52, pp. 260-264

Sandu H, Dale J, Stallard, Crouch and Glucksman E (2009) Emergency nurse practitioners and doctors consulting with patients in an emergency department: a comparison of communication skills and satisfaction. *Emergency Medical Journal*. 26, pp. 400-404.

- Schneider, BA., Daneman, M., Murphy, D. R., & Kwong See, S. (2000) Listening to discourse in distracting settings: The effects of aging. *Psychology and Aging*. 15 (1), pp.110-125
- Shih, FJ. (1998) Triangulation in nursing research: conceptual clarity and purpose. *Journal of Advanced Nursing* 28 (3), pp. 631-641
- Sibbald, B., Addington-Hall, .J, Brenneman, D. & Freeling, P. (1994) Telephone versus postal surveys of general practitioners: methodological considerations. *British Journal of General Practice* 44, pp. 297-300
- Silverman, D. (1993). "*Beginning Research*". *Interpreting Qualitative Data. Methods for Analysing Talk, Text and Interaction*. Sage Publications: London
- Silverman, D. (2000) *Doing Qualitative Research: A Practical Handbook*. Sage: London
- Skinner, H. (2007) Shared learning in the National Health Service. *Postgraduate Medical Journal*. 83, pp. 359-361
- Smith, EM. (2005) Telephone interviewing in healthcare research: a summary of the evidence. *Nurse Researcher*. 12 (3), pp. 32-41
- Spitzer, WO., Sackett, DL., Sibley, JC., Roberts, RS., Gant, M., Kergin, DJ., Hackett, BC. and Olynich, A. (1974) The Burlington Randomised Trial of the Nurse Practitioner. *The New England Journal of Medicine*. 290, pp.251-256
- Steckler, A., McLeroy, KR., Goodman, RM., Bird, ST., McCormick, L. (1992) Towards integrating qualitative and quantitative methods: an introduction. *Health Education Quality*. 19, pp. 1-8
- Stein, L. (1967) The doctor-nurse game. *Archives of General Psychiatry*. 16 (6), pp. 699-703
- Steiner, IP., Nichols, DN., Blitz, S., Tapper, L., Stagg, AP., Sharma, L. and Policicchio, C. (2009) Impact of a nurse practitioner on patient care in a Canadian emergency department. *Canadian Journal of Emergency Medicine*. 11 (3), pp.207-214
- Stilwell, B., Greenfield, S. and Drury, V. (1987) A nurse practitioner in general practice: working styles and patterns of consultations. *Journal of Royal College of General Practitioners*. 37, pp. 154-7
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage: Newbury Park, CA
- Street, RL. (2002) Gender differences in healthcare provider patient communication: are they due to style, stereotypes or accommodation. *Patient education and counselling* 48 (3), pp. 201-206
- Swaby-Larsen, D. (2009) X-ray interpretation by emergency nurse practitioners . *Emergency Nurse*. 17 (6), pp.24-28
- Sweet, SJ. and Norman, IJ. (1995)The nurse-doctor relationship: a selective literature review. *Journal of Advanced Nursing*. 1, pp. 165-170

- Szasz, S. (1982) The tyranny of uniforms. In *Socialisation, Sexism and Stereotyping*. (Muff J. Ed.) CV Mosby: St Lois
- Tachakra, S. (2002) Diagnosing radiological abnormalities. *Emergency Nurse*. 10 (5). pp34-38
- Tachakra, S. and Deboo, P. (2001) Comparing performance of ENPs and SHOs. *Emergency Nurse*. 9 (7,) pp: 36-39
- Tang, KC. and David, A. (1995) Critical factors in the determination of focus groups size. *Family Practice*. 12, pp. 474-475
- Tesch, R. (1990). *Qualitative Research: Analysis Types & Software Tools*. Bristol, PA: The Literacy Trust (2010)  
[\[http://www.literacytrust.org.uk/Database/stats/adult.htm#BSA%latest\]](http://www.literacytrust.org.uk/Database/stats/adult.htm#BSA%latest) [accessed April 28<sup>th</sup> 2010]
- Thomson, H., Kohli, HS. and Brookes, M. (1995) Non-emergency attenders at a district general hospital accident and emergency department. *Journal of Accident & Emergency Medicine*. 12, pp. 279-281
- Thompson, W. and Meskell, P. (2012) Evaluation of an Advanced Nurse Practitioner (Emergency Care)- An Irish Perspective. *The Journal for Nurse Practitioners*. 8 (3,) pp. 200-205
- Thrasher, C. and Purc-Stephenson, R. (2007) Integrating nurse practitioners into Canadian emergency departments. A qualitative study of barriers and recommendations. *Canadian Journal of Emergency Medicine*. 9(4), pp. 275-81
- Thrasher, C. and Purc-Stephenson, R. (2008) Patient satisfaction with nurse practitioner care in emergency departments in Canada. *Journal of the American Academy of Nurse Practitioners* 20, pp. 231-237
- Tiffany, R. and Sparrow, S. (1987) The uniform question. *Nursing Times*. 83, (15), pp. 40-41
- Tye, CC. and Ross, F. (2000) Blurring boundaries: professional perspectives of the ENP role in a major A&E department. *Journal of Advanced Nursing* 31 (5), pp. 1089-1096
- Tye, CC., Ross, F. and Kerry, SM. (1998) Emergency Nurse Practitioner services in major accident and emergency departments: a United Kingdom postal survey. *Journal of Accident and Emergency Medicine*. 15, pp. 31-34
- Tye, CC. (1997) The emergency nurse practitioner role in major accident and emergency departments: professional issues and the research agenda. *Journal of Advanced Nursing*. 26, pp. 364-370
- Van der Linden, C., Reijnen, R. and de Vos, R. (2010) Diagnostic accuracy of emergency nurse practitioners versus physicians related to minor illnesses and injuries. *Journal of Emergency Nursing* 36 (4), pp. 311-316
- Wall, C.R., DeHaven, M.J., Oeffinger, .KC. (2002) Survey methodology for the uninitiated. *J Fam Pract* 51, pp. 281-286.

- Walker, W. (2005) The strengths and weaknesses of research designs involving quantitative measures. *Journal of Research in Nursing*. 10 (5), pp. 571-582
- Walley, P. (2003) Designing the accident and emergency system, lessons from manufacturing. *Emergency Medicine Journal*. 20 (2), pp. 126-130
- Walsh, M. (2000) The emerging role of the nurse practitioner in A&E. *Emergency Nurse* 7, pp.20-4
- Walsh, R. (2001) Patient satisfaction with the emergency nurse practitioner. *Emergency Nurse* 7 (10), pp. 23-29
- Weiland, T., Mackinlay, C. and Jelinek, G. (2010) Perceptions of nurse practitioners by emergency department doctors in Australia. *International Journal of Emergency Medicine*. 3 (4), pp. 271-278
- Weiss, S.J., Derlet, R., Arndahl, J., Ernst, AA., Richards, J., Fernandez-Frackelton, M. (2004). Estimating the degree of emergency department overcrowding in academic medical centers: results of the National ED Overcrowding Study. *Academic Emergency Medicine*.11, pp. 38-50
- Weiss, S.J, Ernst, AA. and Nick, TG.(2006) Comparison of the national emergency department overcrowding scale and the emergency department work Index for quantifying emergency department crowding. *Academic Emergency Medicine*. 13(5), pp. 513–518.
- Weiss, S.J., Ernst, AA., Sills, MR., Quinn, B.J., Johnson, A. and Toad, N. (2007) Development of a novel measure of overcrowding on a pediatric emergency department. *Pediatric Emergency Care*. 23 (9), pp. 641-645
- Welch, S.J. (2010) Twenty years of patient satisfaction research applied to the emergency department: a qualitative review. *American Journal of Medical Quality*. 25 (1), pp. 64-72
- White, A., Kaplan, L. and Eddy, L. (2011) Characteristics of patients who return to the emergency department within 72 hours in one community hospital. *Advanced Emergency Nursing Journal*.33 (4), pp. 344-353
- White, A.L, Armstrong, PA. And Thakore, S. (2010). 'Impact of senior clinical review on patient disposition from the emergency department. *Emergency Medicine Journal*. 27 (4), pp 262-265
- Whiticar, R., Webb, H. and Smith, S. (2008) Re-attendance to the emergency department. *Emergency Medicine Journal*. 25, pp. 360-361
- Wilkinson, S. (1998) Focus groups in health research exploring the meanings of health and illness. *Journal of Health Psychology*. 3 (3), pp. 329-348

Wilson, A. and Shifaza, F. (2008) An evaluation of the effectiveness and acceptability of nurse practitioners in an adult emergency department. *International Journal of Nursing Practice* .14, pp. 149-156

Wilson, A., Zwart, E., Everett, I. and Kernick, J. (2009) The clinical effectiveness of nurse practitioners' management of minor injuries in an adult emergency department: a systematic review. *International Journal of Evidence Based Healthcare*. 7, pp. 3-14

Woolich, C. (1992) A wider frame of reference. *Nursing Times*. 88, pp. 34-36

Worth, A. and Tierney, AJ. (1993) Conducting research interviews with elderly people by telephone. *Journal of Advanced Nursing*. 18, pp. 1077-1084

Wu, C., Wang, F., Chiang, Y, Chiu, Y., Lin, T., Fu, LF. And Tsai, TL. (2008). Unplanned emergency department revisits within 72 hours to a secondary teaching referral hospital in Taiwan. *The Journal of Emergency Medicine*. 38 (4), pp.512-517

Yong, CS. (2006) Task substitution: the view of the Australian Medical Association. *MJA* 185( 1), pp. 27-28

Zandbeit, LC., Smets, EMA., Oort, FJ., Godfried, MH. and De Haes, HCJM. Satisfaction with the outpatient encounter. *Journal of Internal Medicine* 19 (11), pp. 1088-1095

Zwarenstein, M., Reeves, S., Barr, H., Hammick, M., Koppel, I. And Atkins, J. ( 2001) *Interprofessional education: Effects on professional practice and healthcare outcomes*. (Cochrane Review). The Cochrane Library, Issue 3, Oxford.