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A qualitative study of emergency nurses' experiences of working in a reconfigure major trauma system

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**A QUALITATIVE STUDY OF EMERGENCY NURSES'
EXPERIENCES OF WORKING IN A RECONFIGURED
MAJOR TRAUMA SYSTEM**

Heather Jarman

Doctorate in Healthcare

Abstract

This study explores the experiences of emergency nurses working in a new Major Trauma Centre in the UK National Health Service, and how reconfiguration of trauma services has affected perceptions and working practices.

Methods

Drawing on the principles of focused ethnography, fieldwork was conducted over 5 months in the Emergency Department (ED) of a newly designated Major Trauma Centre in London. It comprised approximately 53 hours of participant observation, and conversations and semi-structured interviews with 31 nurses. Qualitative thematic analysis was conducted of fieldnotes and interview data.

Results

The findings reveal a complex picture of the experiences of emergency nurses within the Major Trauma Centre, with interrelated themes emerging. The first gives an account of how major trauma work has led to a perceived increase in the *status and profile* of the ED. The second theme explores *the draw of trauma* and how it is viewed as an exciting component of the nurses' work. The third looks at the idea of *the 'decent' trauma patient*, examining the hierarchy of interest within trauma work, and the final theme explores ED nurses' accounts of their *task-orientated roles* in looking after trauma patients.

Conclusion

The study shows how the value placed on the high profile 'specialist' major trauma work pervades the culture of the department and how the protocol-driven nature of this work fits the immediate patient needs but minimises the ability of nurses to negotiate their professional boundaries in a way they are able to in other areas of their practice. Thus major trauma work is an outwardly exciting but ultimately unsatisfying aspect of the ED nurses' work. More importantly, the collectively accepted notion of the major trauma patient as the one with technically demanding complex injuries that can only be catered for by a "Centre of Excellence", risks undermining the value placed on the care of other patients in the ED.

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Glossary of Terms

Term	Meaning
Accident and Emergency Department (A&E)	Clinical facility with in a hospital where doctors and nurse are specially trained in assessing and managing emergencies.
Advanced Trauma Life Support; ATLS	The most prominent trauma training course in the UK for doctors which teaches a specific trauma patient assessment method – the ‘ABCDE’ approach or the ‘Primary Survey’.
Casualty	Historic term used to describe A&E/ED, often used in the literature prior to 1990. Term still used colloquially and by the public.
Code Red	A protocol that is used when the patient has suffered life-threatening blood loss requiring massive volumes of blood replacement; also used by nurses to describe the patients who required this protocol.
Emergency Department (ED)	A further term for Accident and Emergency Department.
Helicopter Emergency Medical Service (HEMS)	Doctor-led specialist pre-hospital trauma team. Often associated with bringing to hospital the most severely injured patients.
Level I Trauma Centre	International (non-UK) term for Major Trauma Centre– a verified specialist facility providing care to any level of severity of trauma.
Level II Trauma Centre	International (non-UK) term for a verified facility able to initiate treatment for injured patients but may need to transfer patient for tertiary surgery.
Level III Trauma Centre	International term (non-UK) for Trauma Unit equivalent – a verified specialist facility that provides care to any level of severity of trauma.
Major Trauma	Patients suffering life-threatening or cause life-changing physical injuries (NHS Clinical Advisory Groups Report 2010). Within this work the nurses used this interchangeably with the term ‘trauma’.
Major Trauma Centre (MTC)	A specifically designated multi-specialty hospital, on a single site, optimised for the provision of trauma care. It manages all types of injuries (NHS Clinical Advisory Groups Report 2010).
Primary Survey	Structured approach to the assessment of the multiply injured patient used in most developed countries (American College of Surgeons 2012).
Red Phone	The dedicated telephone in the resuscitation room that takes incoming calls from ambulance services to alert that a severely ill or injured patient is on the way; also used as a generic term to describe the type of patient that is brought in via this route.
Resuscitation Room; Resus Room; Resus	A specific area of the Emergency Department that is equipped and staffed to look after the most seriously ill or injured patients.

Term	Meaning
Reconfiguration	A term used interchangeably in the literature with 'restructuring'. In England it is the term used to describe the changes made to the delivery of trauma care into a series of trauma systems
Restructuring	No universal definition - broadly constitutes a change in the way certain services are delivered.
"Straight to CT"	A protocol for enabling major trauma patients to be taken directly from the ambulance to the CT (imaging) scanner
Trauma Call	A co-ordinated organisational response to receiving a major trauma patient in the department.
Trauma Team	The multi-disciplinary team that is assembled to assess and manage a major trauma patient during the 'trauma call'.
Trauma Team Leader	A senior grade doctor responsible for leading and directing the trauma team.
Trauma system	Organised approach to delivery of care to trauma patient within a defined geographical region.
Trauma Unit (TU)	A hospital that can provide care for less severely injured patients and has a system in place to move severely injured patients to a Major Trauma Centre.
Work situation	The relationship between the job role and the social and physical environment in which it occurs (Miller 1946).

Chapter 1 Introduction to the study

This study explores the experiences of emergency nurses working in a new Major Trauma Centre (MTC) in the UK National Health Service, and how reconfiguration of trauma services has affected perceptions and working practices. Reconfiguration of such services has already taken place in a number of other countries and whilst a body of international evidence exists on the impact on patient outcomes, the views of nurses of this type of work and its effect on the organisational and clinical practices of their work situation has received little previous attention.

The chapter commences with an overview of the background to the study, next presenting the scope and development of the research questions. This is followed by an overview of the research design, and finally the chapter concludes with an outline of the organisation of the thesis.

1.1 Background to the study

The development of major trauma services in England was given political and clinical impetus in the late 2000s by a series of reports highlighting failings in the delivery of care to patients suffering major traumatic injuries (National Confidential Enquiry into Patient Outcome and Death 2007; National Audit Office 2010). These reports provided the rationale to deliver major trauma care using a model of service provision already in place in a number of other countries whereby healthcare resources are centralised to a small number of specialised major trauma centres (MTCs) organised in geographical regions, known as a trauma system (NHS Clinical Advisory Groups Report 2010). Such models have had mortality and morbidity rates up to 15-20% lower than England where such a system has only recently developed (Celso et al 2006; National Audit Office 2010). Considerable investment has been made into the development of trauma care delivery in England and this large-scale change has now been realised on a national scale. In London the reconfiguration of services was initiated in 2010, centralising major trauma patients to a small number of specialist hospitals, and leading to a reduction in the number of Emergency Departments (EDs) in London offering care to the severely injured from 22 to four (Vondy and Willett 2011). These changes were adopted across England from 2012. This fundamental shift in the delivery of care to major trauma patients represents an opportunity to explore events at a particular point in time from a unique and contemporary perspective.

The significant investment required to develop a major trauma system in England has led to calls for evidence on patient outcome, in the form of mortality, over other service organisation measures. The potential benefits of restructuring health services, which broadly constitutes a change in the way certain services are organised, may be understood in a variety of ways, including specific patient survival outcomes (Lundstrom et al 2000), improvements in access to services (Simpson et al 2001) or in efficiency gains through changes to patterns of staffing (Goodwin et al 2004). The inherent complexities involved in working and caring for major trauma patients in a system designed to optimise patient outcome have yet to be determined.

There has been considerable investment in developing the contribution of the workforce to health services, and in enabling clinicians to have a key role in shaping policy (Department of Health 2008b). Despite this, nurses responsible for care delivery largely do not take part in policy construction, and service restructuring often takes place without their involvement. The restructuring of healthcare and changes to services impact on the nursing workforce who provide a significant contribution to the delivery of care, not only as the largest health professional group, but as key contributors to patient outcome. The views of nurses of the way services are delivered is under-represented in the literature, but to maximise the contribution of nurses in improving and sustaining performance it is important to understand their experiences.

1.2 Aim and research questions

The overall aim of the study was to explore the perspective of nurses working in the ED of a Major Trauma Centre with regard to the effects of reconfiguration of major trauma services, particularly its impact on their own work situation. The term 'work situation' is derived from the social science literature in particular the work of Miller (1946) who specifically examined social factors in the work place and described it as:

"an organic relationship between the technical detail of the job and its interlocked social and physical environment which describe a setting for every job" (p. 302)

It is a term that has been used variously since, but often without distinct definition, in a number of studies relating to differing aspects of 'work'. More recently it has been used in studies examining features of work such as environment, work ability and employment setting in health, education and social care (Ahlgren and Gillander Gadin 2011; Bostrom et al 2012; van Dam et

al 2013). For the purposes of this study 'work situation' returns to Miller's notion of the links between what people do, the setting in which they work and how these are affected by their working relationships.

The impetus for the study had been my involvement as a senior nurse in the reconfiguration of trauma services across London, and my curiosity as to the impact these changes may have on the work situation of emergency nurses. From the outset of reconfiguration there was a clear and necessary focus on the organisation and delivery of trauma care to the patient and the potential benefits on clinical outcomes. However, I felt the success of developing specialist trauma services could not be assessed on patient outcomes alone and required evaluation of the impact on and experience of those delivering care.

The research aim was clarified as the study progressed but in line with ethnographic approaches used in this study, the starting point was the development of a broad research question based on my own area of interest. This is termed by Malinowski (1922, reprinted 2007) as "foreshadowed problems" in identifying the topic areas I initially considered exploring. Derived from my professional knowledge of the subject I was aware of the attention shown toward major trauma patients by ED nurses' and was interested in their perspectives on major trauma and how these had changed or developed as a result of working in an MTC. This was further informed by findings from the narrative literature review presented in chapter 3. The initial research question that evolved was:

What effect has the reconfiguration of major trauma services had on the work situation of emergency nurses?

During the early stages of the iterative process of field work and analysis two questions emerged and developed. The first related to the notion of major trauma being held in an esteemed position by the nurses, and this became the subject for a line of enquiry during interviews. The second arose from the nurses' accounts of the major trauma work in the ED and their role in looking after trauma patients.

This resulted in two overarching research questions:

- 1) What are the perceived effects of MTC designation on the hospital and its work and its nurses?
- 2) How do the working practices surrounding major trauma affect the work of the nurses in the ED?

These questions are returned to in Chapter 7.

1.3 Research design and methods

The paucity of literature relating to the effects of reconfiguring and centralising specialist services on those who work within these settings lent itself to an exploratory qualitative design. The principles of focused ethnography, an interpretive approach, were utilized to enable the development of a rich understanding of the topic through natural inquiry, focusing on reporting rather than explanation (Bryman 2012). Participant observation and interviews were used to generate insights and understanding of the context of nurses' trauma work in an MTC. A total of 53 hours of participant observation was undertaken over a period of 5 months, including informal conversations with 16 nurses working in the ED. A further 15 audio-recorded interviews were held with nurses exploring their perceptions of major trauma work and its effect on their role and work setting. Thematic qualitative analysis was conducted of field notes and interview data.

1.4 The use of reflexivity in this study

A key element of the process of undertaking this research was my own reflexivity, concerned with "how the field of study is filtered through the very particular interpretive lens of the researcher and, as such, reflects their individual history and biography as well as their theoretical perspective" (Allen 2004, p.15).

Whilst an imprecise term, reflexivity refers to the acknowledgement of the role of 'self' in the research and includes the conscious attention to the beliefs, interests, personal characteristics and qualifications in relation to the topic being researched (Cudmore and Sondermeyer 2007). In line with Hand's (2003) view that reflexivity should be considered at every stage of the research I weave discussion of these elements through the thesis in order to provide the reader

with a richer account of the work undertaken. I have included personal feelings and involvement in the research where they contributed or influenced my behaviour in the field or the choices I made during the research process. This is done with the intention of making decisions transparent but also to acknowledge the influence that my previous experience and knowledge may have had on how I approached the field work and the analytic considerations (Etherington 2004; Baumbusch 2011).

The role my professional experience played in developing this study was particularly pertinent. I had worked as a Consultant Nurse within the resuscitation room of an Emergency Department, the initial point of arrival for major trauma patients, for over 10 years at the commencement of the study. This gave me extensive clinical exposure to major trauma patients but also to the working practices in both the resuscitation room (part of the ED) and the wider department. Parallel to this role I was involved in informing and influencing the reconfiguration of major trauma services in both London and subsequently in the rest of England. This was done through membership of both regional and national steering committees. At the time of the study my role was as Director of Major Trauma at another one of the London MTCs, accountable for all aspects of service delivery and performance relating to major trauma. As the only nurse in the country holding this level of position in major trauma it gave me a unique insight into both the clinical practice setting of the ED and the strategic development of major trauma services.

There is some debate on the issue of ethnography and what Roberts (2007) terms “staying in your own nest”, particularly related to the potential for researchers in familiar settings to take for granted observed practices as ‘normal’ (Bonner and Tolhurst 2002; Cudmore and Sondermeyer 2007). The literature on reflexivity somewhat polarises this argument with either an assumption of total familiarity or complete unfamiliarity but my position was somewhere in-between, what Pellatt (2003) describe as a tension between “strangeness and over-identification” (p.31). Due to my professional background I had an understanding of the fundamentals of what was occurring in both the ED and the trauma work, which meant I understood the practice setting and was able to relate to those working in it. I was not however familiar with the field setting selected for this study, and having worked in my current hospital for over 10 years found I had a natural curiosity for exploring a different context.

1.5 Organisation of the thesis

The next chapter of this thesis gives context to the study by reviewing the factors that have driven the reconfiguration of major trauma services and providing a description of their current operation in England.

Following on from this, Chapter 3 presents a narrative review of the literature offering a broad perspective of the effects of restructuring of health services on the nursing workforce and the effects of developing specialist or 'status' hospital services. The review found limited exploration of the effects of restructuring on nurses working in the NHS and a paucity of literature that explores the impact of changing the delivery of specific specialist services on the work situation of employees. This supports the argument for the use of qualitative methods in exploring this area. An overview of the work of emergency nurses is then provided to bring context to the study setting and participants.

Chapter 4 provides a detailed account of the research design and methods used. It starts with a justification for the selection of an approach derived from ethnographic methodology, specifically focused ethnography. Procedures and methods in relation to the conduct of the study are presented, including the process of gaining access to the field and ethical considerations.

The findings from the empirical work comprise chapters 5 and 6, each focusing on distinct but interrelated areas of the findings. Chapter 5 presents a descriptive account of the physical and spatial environment in which the nurses work and examines the organisation of the trauma work in the ED. This is derived largely from observation data and supplemented by the nurses' explanations and perceptions of events that take place in their work setting.

Chapter 6 presents the findings resulting predominantly from the interview data and framed within the four interrelated themes identified. The first gives an account of how the accreditation to do major trauma work has led to a perceived increase in the *status and profile* of the ED. The second theme explores *the draw of trauma* and how it is viewed as an exciting component of the nurses' work. The third looks at the idea of *the 'decent' trauma patient*, examining the hierarchy of interest within trauma work, how it is expressed in the everyday language of the ED, and how it influences the care given to non-trauma patients. The final theme explores ED

nurses' accounts of their *task-orientated roles* in looking after trauma patients. This chapter concludes by examining the interrelationships found in the themes to highlight the complexity of the nurses' work situation in the MTC.

Chapter 7 features the discussion of the findings in relation to the overarching research questions and further draws together the cross cutting themes. Chapter 8 concludes the thesis by considering implications for practice and makes specific recommendations for future research. The methodological limitations of the study are also discussed.

Chapter 2 Background and study context

2.1 Introduction

The impetus for this study was the recent and on-going development of trauma care delivery in England, driven by a number of factors including patient outcomes and service efficiency. In order to place this study within the context of changes to contemporary health services this chapter describes the background to the reconfiguration of trauma services in England.

2.2 Reconfiguration of major trauma care in the England

The development of major trauma services in England, likely to be followed in the rest of the UK in the near future, was driven by the need to improve the quality of care for major trauma patients and reduce patient mortality. There is no common definition of what constitutes reconfiguration within healthcare and in the literature the term is often used synonymously with 'restructuring', 'reorganisation', 'redesign' and 'organisational change'. Within policy literature relating specifically to major trauma services in England the term 'reconfiguration' is used to denote changes made to the way that these services are delivered.

2.2.1 Organisation of trauma care

There is no universally accepted definition of what major trauma is, and examples vary from those relating to type of injury, severity of injury based on scoring systems or the cause of injury to the patient (mechanism). Broadly it relates to those suffering life-threatening or life-changing physical injuries (The Intercollegiate Group on Trauma Standards 2009). In England there are over 48,000 trauma cases each year with around 20,000 of these considered to be 'major' resulting in 5,400 deaths (National Audit Office 2010) and leaving many more with permanent disability.

There has been criticism of major trauma care in the UK for over 20 years, with the first definitive outcome based study in 1992 of over 15,000 patients highlighting inadequate care delivered by junior staff resulting in delayed treatment (Yates et al 1992). Despite a further report raising similar concerns (Royal College of Surgeons 2000) and subsequent changes to the delivery of care through systematic assessment, training of staff and technological developments the most recent data set indicated there had been no improvement nationally in

the mortality outcome for trauma patients since these reports (Royal College of Surgeons 2007). Subsequently, 'High Quality Care for All' (Department of Health 2008a) tasked Strategic Health Authorities with the establishment of trauma networks (a grouping of hospitals that provide trauma services) but there remained a lack of political impetus for their development.

The two most influential reports in driving reconfiguration in major trauma were both published within three years of each other in the late 2000s, and recommended the development of regionalised systems of trauma care (National Confidential Enquiry into Patient Outcome and Death 2007; National Audit Office 2010). These reports highlighted deficiencies in the delivery of care to patients caused by lack of expertise and poor organisation, and reinforced the need for trauma networks based around optimum use of resources. As a direct result of this report there was an increase in politically driven activity stemming from the then Chief Executive of the NHS being called to account for poor trauma outcomes at a public affairs committee in 2010 (UK Parliament 2010). This led to a revision of the NHS Operating Framework for 2010/11 (Department of Health 2010) making specific reference to proceeding with proposals for reconfiguring major trauma services in England.

It would be naive to presume that the reconfiguration of trauma care in England was entirely driven by the potential for improved patient outcomes. Major trauma not only reflects the potential for the health burden of such injuries but is reflected in significant initial treatment costs of between £0.3 and £0.4 billion a year, and an additional impact of loss of economic contribution for patients no longer able to work after major injuries of £3.3 to £3.7 billion (National Audit Office 2010). Christensen et al (2008) calculated the mean hospital cost for a trauma patient in England and Wales at £9,530 for 2000-2005, for those with severe injuries costs rose to £17,000. The potential efficiencies delivered by a trauma system where resources and facilities are centralised into a specialist hospital have been shown to reduce the length of stay by four days (MacKenzie et al 2006), leading to potential efficiency savings of £65.8 million in bed day savings to the hospital (The Intercollegiate Group on Trauma Standards 2009).

2.2.2 The development of trauma networks in England

Trauma systems are based on the establishment of a network of rationalised services that allow patients to be treated in a hospital capable of receiving the most severely injured and equipped

with resources focused around specialties and support services to meet the needs of trauma patients (The Intercollegiate Group on Trauma Standards 2009). The key recommendations in the advisory reports were adopted in London in 2010, ahead of the rest of England, as part of the reconfiguration of specialised care for the multiply injured patient to support the evidence of improved outcomes (Healthcare for London 2009). From April 2010 the implementation of a trauma system in London reduced the number of EDs offering care to the severely injured from 22 to four (Vondy and Willett 2011). These hospitals are referred to as Major Trauma Centres and they are supported by pre-hospital systems and specialist rehabilitation (Figure 1). The pre-hospital system ensures an arrangement in which only the most severely injured are taken to the specialist MTC and local hospitals receiving patients are designated as Trauma Units (TUs) capable of delivering less specialised care.

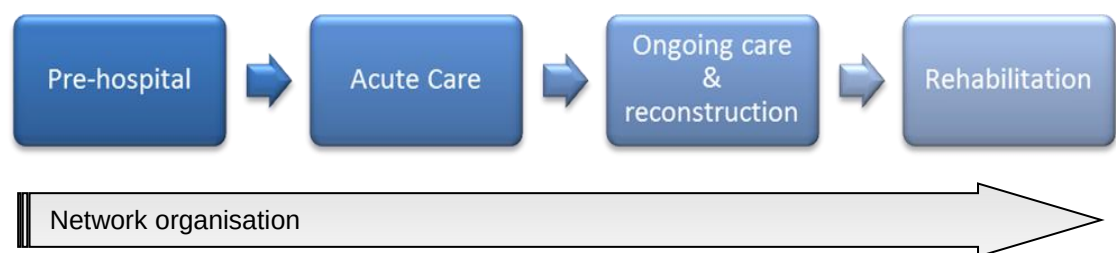


Figure 1: the inclusive trauma patient pathway (NHS Clinical Advisory Group 2010)

The ability to discern which patients require an MTC necessitates identification of severely injured trauma patients at the scene of injury known as ‘triage’, most commonly this is guided by a guidance tool to aid the decisions of pre-hospital services as to which patients are likely to benefit from specialist MTC care. The tool considers factors such as the patient’s physiology (heart rate, blood pressure), mechanism of injury (what happened) and obvious signs of trauma such as chest or pelvic injuries. In England there is no standard tool but an example is included in Appendix 1. Prior to the implementation of these decision support tools those suffering serious injuries would be conveyed to the ED of the nearest hospital from the scene of injury.

Prior to the development of trauma networks patients were often seen by the most junior staff without the knowledge or experience to provide optimal care, in hospitals not equipped to deal with complex injuries due to lack of specialist staff and resources. One argument for the

reconfiguration of trauma services was the need to concentrate resources to provide a 'critical mass' of patients that allow those treating multiple injuries to develop and maintain trauma specific skills that contribute to delivering expert clinical care. This critical mass is thought to be around 250 patients per year (Nathan et al 2001; London and Battistella 2003), and dispersing trauma cases across all EDs in England meant this target could not be achieved.

Following implementation of trauma networks, particular in urban areas where there are short transfer times from the scene of injury to the MTC, the Trauma Units are 'bypassed' (driven past) in preference to taking the patient directly to the MTC. There is general acceptance in England that bypass is clinically appropriate if the location of the MTC is within a 45 minute transfer time (Jansen and Campbell 2014). With specific reference to London, the location of this study, its trauma system went 'live' in April 2010 and was the first of its kind in the UK. Four trauma networks are operational, each with a Major Trauma Centre:

- North East London and Essex Trauma Network (MTC Royal London Hospital)
- South East London Trauma Network (MTC King's College Hospital)
- South West London and Surrey Trauma Network (MTC St George's Hospital)
- North West London Trauma Network (MTC St Mary's Hospital)

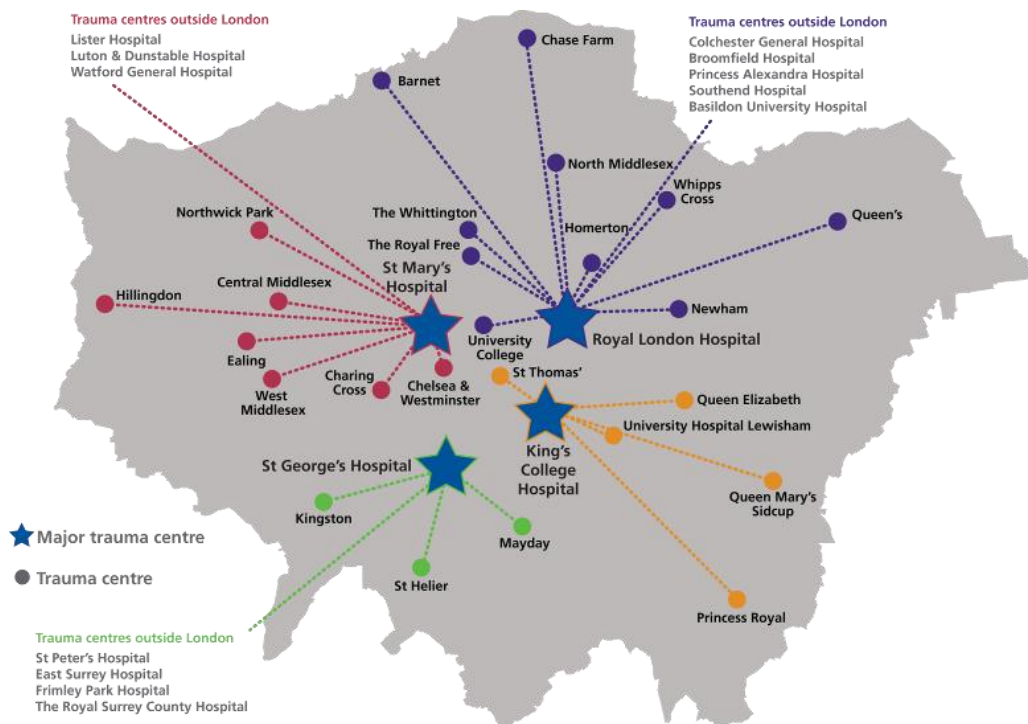


Figure 2: the London Trauma System (London Trauma Office 2010)

The first annual report following reconfiguration of major trauma services across London showed an average of 10 patients per day had been treated within one of the four MTCs. The first six months of operation saw an additional 37 survivors from major injuries than would have been expected prior to reconfiguration (London Trauma Office 2010). Following on from the changes in London the rest of England instituted a series of trauma system 'Networks' from April 2012. The NHS Confederation guidance (2010) on implementation suggested equitable distribution of MTCs to provide cover for all areas of England was important in deciding where MTCs should be located. This led to 26 MTCs across the country including 4 designated to only manage injured children (Appendix 2).

2.2.3 The role of the Major Trauma Centre

The MTC is the hospital which sits at the centre of the trauma system and is responsible for providing a full range of services that reflect the clinical course of the patient from the point of injury to discharge from rehabilitation (The Intercollegiate Group on Trauma Standards 2009).

Hospitals wishing to be designated as an MTC undergo a process of peer review. This requires evidence of organisational commitment and necessitates the hospital demonstrates it can deliver specific services for major trauma such as a consultant-led resuscitation team and availability of full surgical specialties (Royal College of Surgeons 2007; NHS England 2013b). In practice the MTC is not a separate hospital or single clinical service but the umbrella term given to a specialist hospital that has the facilities required for designation, of which the ED is one component. Since the development of MTCs across England in 2012 there has been a yearly review process to monitor the adherence of MTCs to a set of national performance standards overseen by the Department of Health. The core service requirements are set out in a service specification document (a contract) with the aim of delivering a "comprehensive system of specialist care for people who have suffered serious injury" (NHS England 2013b, p.5), an example of the requirements are outlined in Table 1.

Area of practice	Requirement
Emergency Care and surgery	24/7 consultant available on site to lead the trauma team
	Trauma team present 24 hours a day of immediate reception of the patient
	Ability to undertake resuscitation thoracotomy in the ED
	24/7 immediate availability of fully staffed operating theatres
On-going care	Immediate access to critical care or high dependency care (adult or paediatric) when required
	Specialist nursing and allied health professional trauma roles
Acute/early phase rehabilitation	A defined service for acute trauma rehabilitation which meets the needs of patients with ISS>8
	Assessment within 72 hours by a rehabilitation medicine consultant
Network delivery	MTCs will provide clinical advice to other providers in the Network

Table 1: Service specification for major trauma

Hospitals must choose to invest to meet the designated standard to become an MTC “earning the right to enter the market” (NHS Confederation 2010, p.21). This means that in practice all the MTCs are located within large hospitals that had the majority of clinical services in existence for other patient groups and in London they are all based hospitals that have established tertiary specialist surgical services. Although a recent report found there is no clear evidence of the cost effectiveness of MTCs (Health Improvement Scotland 2013), considerable financial investment in services has been made by hospitals wishing to become MTCs to ensure that they meet the designation criteria. There are higher costs associated with the complex specifications required to be an MTC that are not currently offset by an adequate payment for the care delivered. Despite this there was no shortage of hospitals putting themselves forward for designation suggesting that non-financial factors are important drivers.

2.2.4 The impact of trauma systems

The rationale for development of trauma systems in England has been founded in the potential improvements in patient outcomes (measured as mortality) seen in similar systems established in other countries, in particular North America and Australia. Patient outcome monitoring has been prevalent in these countries for the last 30 years, and a number of studies provide evidence using population-based logistical regression of the improvement in survival. Whilst this evidence should not be viewed uncritically, it is the strongest available of the effects of an organised trauma system whereby the most severely injured are transported to an MTC. The

proof of effectiveness of such systems is continued with evidence of mature systems reducing mortality by between 4% and 20% over time (Lansink and Leenen 2007; Cameron et al 2008). The reasons for these improvements in survival appear various, and there is some interest in defining the relationship between different aspects of trauma care and outcome measures, for example the relationship between volume and mortality (Arababi et al 2005; Freeman et al 2006) and experience levels of personnel and mortality (Groven et al 2011). The complexity of both process and outcome (the number of variables) for multiply injured patients means it is not possible to attribute the improvements in morbidity and mortality to one single factor, and this is reflected in the methodological limitations of the studies exploring this area. There does appear to be some correlation between outcome, again examined as mortality, and the volume of major trauma cases through an MTC (Konvolinka et al 1995; Nathan et al 2001). This appears to show that volume of trauma patients translates into an increased level of exposure and experience for both the MTC and the staff in dealing with complex injuries. This has been shown to have a positive effect on patient survival (MacKenzie et al 2006; Davenport et al 2010), and early indicators from the introduction of trauma networks in England support an increase in survival of 20% (NHS England 2013a)

2.3 Chapter summary

The contemporary nature of the changes taking place in trauma care in England means that there is little empirical evidence to evaluate the effectiveness of reconfiguration of these services on patient outcomes or on the workforce delivering care. This chapter has explored the impetus and rationale for reconfiguration of major trauma services across England in the context of emerging systems of care in this area. The purpose of this has been to provide a background to the hospital setting examined in this study – that of the Major Trauma Centre. The following chapter draws together the literature on the effects of restructuring services on nurses and the effects of the development of hospital services seen as specialist or ‘high status’. It also provides an overview of emergency nursing as an area of practice to bring context to the nursing work of the participants of this study.

Chapter 3 Literature review

3.1 Introduction

The purpose of this chapter is to provide a narrative review of the literature relating to the areas addressed in this study. Its aim is not to provide a systematic review of research but, in line with the principles of narrative reviews, to summarise the key issues explored in the literature (Green et al 2006; Bryman 2012). This is done with the intention of providing a broad perspective on the context of the study, and to identify the knowledge gaps of relevance to the work situation of nurses in restructured services. The literature also provided an empirical basis to the development of the fieldwork and interview guide in subsequent stages of the study. As the study progressed it became evident that reconfiguration had led to a prevailing sense that major trauma held a position of esteem in the organisation. In that light, in order to further inform both the fieldwork and discussion the literature on development of services perceived to have 'high status' was explored.

In order to explore the initial "foreshadowed problem" expressed in the research question "*What effect has the reconfiguration of major trauma services had on the work situation of emergency nurses?*", the literature relating to restructuring of health services and its effect on the nursing workforce was explored. This is presented as a review in line with Carnwell and Daly's approach to reviewing "the current state of knowledge relating to a topic under investigation, as a means of identifying gaps in the knowledge that a new study would seek to address" (2001, p.57). This formed part of the pre-fieldwork phase of the study in exploring the scope and extend of the available literature (Hammersley and Atkinson 2007).

The review is arranged in three sections covering the effect of restructuring of services on the nurses who work in them, the development of specialist 'high status' services, and finally the role and work of nurses in Emergency Departments.

3.2 The effects of health service restructuring on the nurses involved

This section begins by outlining the process of identifying relevant literature. A review of literature concerning health service restructuring and its effects on the nurses was undertaken,

derived from searches of Medline, and Social Policy and Practice databases and hand searching of reference lists in relevant papers (Appendix 3). Electronic databases were searched using subject headings, and expanded and narrowed using combined terms to include “effect” as the phenomenon of interest and synonyms of “restructuring” and “organisational change”. A timeframe restriction of 1990 onwards was applied to reflect contemporary health policy change and views. No limits or restrictions were applied to the study design or methodology but papers were excluded if they related to patient outcomes or service user / non-nurse perspectives. Papers selected from the search were entered in ‘Endnote X3’ bibliographic manager.

This search resulted in a total of 46 papers. Papers were included if they contributed to the discussion or provided insight into the effects of restructuring, and relevant methodological considerations of the studies are presented within the body of this section.

3.2.1 Overview of studies

The majority of studies originated from Canada (n=18), although eight of these papers related to the same overarching longitudinal research project. The absence of studies from Africa or South America may be reflected by the limits to English or the lack of research in this area within these locations. A summary of geographical locations of the studies is presented in Figure 3.

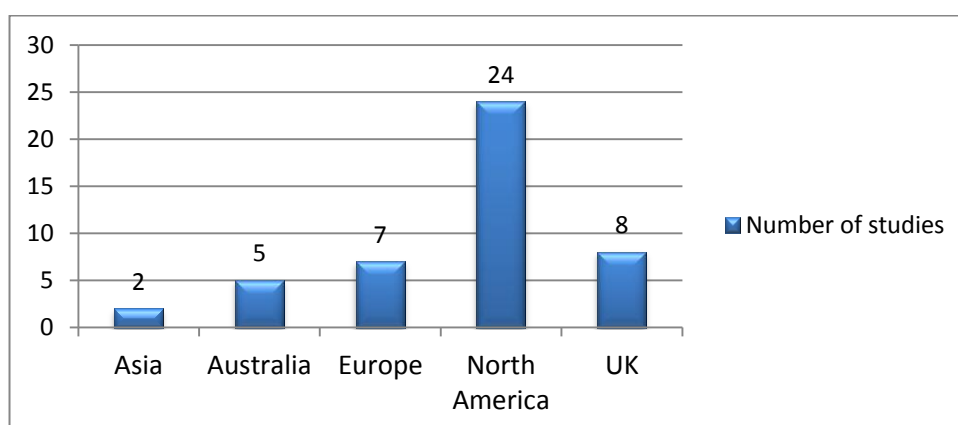


Figure 3: geographical location of studies

Of the papers reviewed no methodological principle dominated although thematically there were similarities in the focus of the studies. The predominant methodology in the evaluation of large-

scale change on the nursing workforce is quantitative, with surveys of large populations the most prolific. Eight papers reporting the same longitudinal study in Canada are included in this group (Burke and Greenglass 2000a; 2000b; Greenglass and Burke 2001a; 2001b; Burke 2003c; 2003b; 2003a; 2004). Within these a range of self-administered rating scales/items were used to measure job satisfaction, psychological impact and burnout, perceived hospital effectiveness and attitudes.

Qualitative methodologies employed reported the use of generic qualitative methods rather than observing a specific explicit philosophical foundation, such as ethnography or phenomenology. Most commonly the data collection for qualitative studies used interviews, seventeen with individuals and four using focus groups. Observation as a data collection method was used in 4 studies in addition to interviews (Kovner et al 1993; Wong 1998; Kowalczyk 2002; Loretto et al 2010). Analysis of qualitative data used predominantly thematic analysis with content analysis or reference to grounded theory techniques.

For the purpose of this review the literature is considered according to the type of restructuring – the first explores effects of restructuring in health systems such as mergers, regionalisation of health boards and changes to governing health organisations.

3.3 Effects on staff of restructuring of health systems

The literature identifies that restructuring activity in health services broadly involves changing the way that healthcare services are delivered. In response to the political and professional focus on restructuring at health system or regional level there is a body of work concerned with the impact on nurses of high-level changes such as mergers and downsizing.

These studies focus on the well-being of the workforce during restructuring in areas such as job satisfaction, burnout, and stress (Thorpe and Loo 2003; Brown et al 2006; Su et al 2009) and reflects a largely negative view of the effects of health service restructuring on nurses. A summary of the effects of restructuring on nurses found in the literature are shown in Table 2.

Effects of restructuring on nurses			
Cluster	Factor	Sub-factor	References
Effects of restructuring health services	Effects on well-being	Psychological health	(Burke and Greenglass 2001; Burke 2003a)
		Stress	(Maurier and Northcott 2000; Spence Laschinger et al 2001; Thorpe and Loo 2003; Brown et al 2006; Verhaeghe et al 2006; Glasberg et al 2007; Su et al 2009)
		Job insecurity	(Burke and Greenglass 2001; Burke 2003a; Brown et al 2006; Loretto et al 2010)
		Decrease in emotional health	(Ingersoll et al 2001; Hertting et al 2004; Cummings et al 2005)
	Job satisfaction		(Burke and Greenglass 2001; Greenglass and Burke 2001a; Moore 2001; Spence Laschinger et al 2001; Burke 2003b; Way et al 2005; Glasberg et al 2007)
	Work environment	Increases in workload	(Burke and Greenglass 2001; Greenglass and Burke 2001a; Spence Laschinger et al 2001; Burke 2003b; Jonsson and Petersson 2003; Glasberg et al 2007)
		Loss of professional efficacy	(Moore 2001; Loretto et al 2010)

Table 2: literature summary - effects of restructuring health systems

3.3.1 Effects on the well-being of staff

There is a starting point in much of the literature that restructuring in its various forms can be expected to cause negative or untoward effects on the workforce. This is reflected in the terminology used within the rationale for undertaking studies often referring to an interest in determining 'stress', 'coping' and 'staff morale' during change. Six studies identify the effects of being exposed to repeated restructuring of services that are seen as a cause of discontentment and stress amongst healthcare workers (Maurier and Northcott 2000; Spence Laschinger et al 2001; Thorpe and Loo 2003; Verhaeghe et al 2006; Glasberg et al 2007; Su et al 2009).

In a study of the effects of merging two hospitals in the UK Brown (2006), undertook a before and after comparison of 351 nurses with the aim of exploring psychological stress and change processes prior to, and 1-year after restructuring. Study participants were assigned to three groups (pre-event; post-event; those not affected) and analysis of responses showed those affected by restructuring had a level of stress significantly higher prior to restructuring ($p < 0.03$ across groups) and more job insecurity post-restructuring ($p = 0.01$). Whilst stress was evident in the period during the merger, the post-restructuring questionnaire was administered 1-year later and job stress and pressure continued at least until this point after the event, associated

with lower job satisfaction and a perception of lack of participation in decisions. A number of other studies have identified an increase in emotional exhaustion and poorer emotional health in employees during and following restructuring (Ingersoll et al 2001; Hertting et al 2004; Cummings et al 2005). Further, the link between stress and poor emotional health is evident in individuals with high levels of job insecurity or increased workload due to restructuring.

3.3.2 Effects of restructuring on job satisfaction

The majority of the studies examined the relationship between restructuring and job satisfaction, finding in particular that there was a decline in job satisfaction after restructuring. In a study of health system restructuring in the 1990s an increase in work leading to an overload of work demands was a cause of dissatisfaction amongst staff. The qualitative findings reported by Spence-Laschinger et al (2001) are part of a larger study examining working conditions following restructuring in Canada. Data reported are from an open-ended question within a survey, although the detail of this is not provided. Content analysis of results from 230 participants (60% of the overall survey responses) revealed four major categories relating to work attitude – quality of work life, quality of patient care, relations with management, and cumulative impact of work conditions. Clear explanation of the prevalence of responses in each of the categories is not provided making judgement of the potential significance difficult. These effects are seen in other studies undertaken during Canadian health system reform identifying the decreased levels of job satisfaction caused by lack of resources as a result of restructuring (Burke and Greenglass 2001; Greenglass and Burke 2001a; Burke 2003b).

Widespread health service changes occurred in the late 1990s in Ontario, Canada leading to downsizing, mergers, and hospital closures and led to a number of studies on the effect on the workforce over this period. These studies are linked in their methodology, instrument measures and sample with variation in the emphasis on interpretation of results, although this is not revealed in individual papers. Examining a series of outcome measures such as job satisfaction, burnout and psychosomatic outcomes using survey questionnaires, an increase in workload was found to be the most significant predictor of stress amongst nurses working in hospitals that were downsized (Greenglass and Burke 2001a). The sample size appears large (n=1363) but represents a response rate of 35%. The use of survey questionnaires also limits the ability to

explore these effects of workload increase in more detail and it is unclear if the implications relate to volume, case mix or acuity. These workload factors have the potential to impact directly on hospital or service function as reported in other studies whereby nurses perceived more errors, lower quality of care and reduction in professional efficacy following restructuring (Moore 2001; Burke 2003c; Loretto et al 2010). Similar feelings were noted amongst nurses who felt disempowered by changes to job role caused by restructuring where there was a view that they had a decrease in control over their work as a result of uncertainty regarding merger (Blythe et al 2001). Job satisfaction is reduced in circumstances where there is more stress, an increase in workload and a decrease in support (Moore 2001; Burke 2003c; Way et al 2005; Glasberg et al 2007). Poor or reduced job satisfaction is an important determinant of intention to quit and as such understanding how it is influenced by restructuring is important in the retention of staff during change and in maintaining services. Capturing the perceptions of the workforce at the time of restructuring could be viewed as too subjective but there is value in exploring these experiences to develop an understanding of the effect of service restructuring on the healthcare work.

3.4 Effects on staff of restructuring of hospitals or individual services

In response to restructuring of health services at hospital or department level the literature presents a number of commonalities on the effects on nurses in these settings. These reflect the effects identified in a review of hospital restructuring and the work of nurses by Norrish and Randall (2001) who identify three characteristics of change to nursing roles caused by restructuring – nursing workload, the control of nursing work and work roles of nurses (Table 3).

3.4.1 Effects of restructuring on the nursing workload

Norrish and Randall (2001) identify that a key consequence of much service restructuring is a reduction nurse staffing numbers and a subsequent increase in workload. Downsizing of services due to financial constraints appears to have a particular impact on workloads and efficacy of staff in carrying out their professional roles (Baumann et al 2001). A number of studies report a move toward increased responsibilities and patient caseloads for staff as a result of changing the way services are delivered to patients (Rapport and Maggs 1997; Thorpe and Loo 2003; Venturato et al 2006).

There are commonalities identified in the literature in terms of the effects of restructuring on the skill mix of nursing teams, one consequence of which is the replacement of qualified staff with healthcare assistant (HCA) roles driven largely by the need for efficiency savings. There is ambiguity across study findings in relation to the impact of this on the work situation of qualified staff, being viewed as 'freeing up time' for some and 'being replaced' in others. The direct impact on patients of changes to skill mix is outside the scope of this narrative review, but concern is raised over adequate care provision through reassignment of roles to unqualified roles, leading to dissatisfaction amongst qualified staff (Blythe et al 2001; Doherty 2009). In contrast, a descriptive study reporting service evaluation in a unit where care assistants had been removed found a general feeling that changes had led to a more professional work environment and an increase in autonomy for qualified nurses (Garon and Stacy 2009).

3.4.2 Effects of restructuring on the work role of nurses

In contrast to the process of restructuring, which is often seen as stressful, there are perceived benefits to nurses of restructuring illustrated in the literature. A number of studies report an impact on the roles and professional practice of nurses following restructuring, particularly through role expansion or enhancement in areas where services were centralised (Wong 1998; Rosengren et al 1999; Durand et al 2010). Studies identifying an impact on professional practice note an opportunity for role development following restructuring of services. In a review of modernisation in critical care across multiple disciplines in the UK Durand et al (2010), found that reorganisation of critical care services provided opportunities to develop new roles and overcome traditional hierarchical boundaries. The development of critical care services necessitated new ways of working to fill gaps in service provision brought about by modernisation and, in particular, gave opportunity to allied health professions to enhance their role by being directly responsible for patient care and development of practice. As part of a year-long ethnographic study to examine nurses' work following changes to the structure of regional health services to improve efficiency in care delivery in Hong Kong, Wong (1998) found that the emphasis on delivering cost-effective care had provided nurses the opportunity to develop autonomy in their own practice decisions. Restructuring across the health system had led to changes in nursing management hierarchy within the hospital and the development of new roles enabling clearer differentiation of clinical nurse specialist and nurse manager roles

from other nurses. A number of other studies identify positive experiences of restructuring resulting in the development of new or additional practice opportunities (Rosengren et al 1999; Currie and Crouch 2008; Doherty 2009; Wells et al 2011).

3.4.3 Effects of restructuring on the control of nursing work

Control of nursing work is categorised by Norrish and Randall (2001) as “the autonomy accorded professionals by virtue of their expert knowledge” (p.68). This can be affected by restructuring when there is lack of involvement by nurses in decisions relating to their roles. In a study aiming to describe the effects of nurse redeployment following merger of three hospitals in Canada on the professional and personal lives of nurses, Blythe et al (2001) identified discontentment at the lack of input from clinical staff in formulation of changes to their work environment. In a series of focus groups nurses (n=59) commented that they expected to be involved in decisions regarding their unit practices but were not. This caused a feeling of loss of control over their work situation. In a review of causes of occupational stress, Cooper et al (2001) noted that the organisational restructuring was a cause of strain to nurses, particularly in situations where there is little involvement of staff in the management of change. Studies show that anxiety during restructuring is increased when the change is viewed as ‘top-down’ with limited involvement or understanding of the workforce involved (Rosengren et al 1999; Engstrom et al 2002; Wynne 2004; Glasberg et al 2007). Lack of involvement is also shown to lead to feelings of “disheartenment” and hopelessness regarding the potential outcomes of restructuring, in particular its effects on the work environment and patient care which causes anxiety (Rosengren et al 1999; Engstrom et al 2002).

In their exploration of nurses’ experiences of moving long-term care out of hospital to a community setting, Venturato et al (2006; 2007) found that nurses experienced stress within the new environment caused by lack of preparation for working in a new system. There is conflict and tension evident throughout the reported interview findings reflected in terms such as “fighting for resources” and “being in the trenches”. The use of these metaphors is found in other studies where there is a sense of having to ‘do more with less’ as a result of restructuring (Engstrom et al 2002; Kristiansen et al 2010).

The importance of the role of those in hierarchical positions, such as managers, in influencing or mitigating some of the effects of restructuring has been established in the literature (Rapport and Maggs 1997; Rosengren et al 1999; Moore 2001; Wynne 2004). Tension and conflict between managers and employees occurs where managers' imperative is seen as meeting targets and reducing costs (Rosengren et al 1999; Blythe et al 2001). This conflict is also revealed in a study of district nurses' responses to change in service provision in community settings in the UK (Rapport and Maggs 1997). Employing a qualitative approach, informed by "ethnography and phenomenology" they found managers were viewed by the nurses and other frontline staff to be out of touch as their role was bounded by budget responsibility and they did not seem to recognise the efforts of staff.

The effect of restructuring on the professional role of those involved is shown to be diverse, and includes the factors identified by Norrish and Randall (2001) as effects on nursing workload and working practices. It is not wholly clear from the studies reviewed what contributes toward restructuring having a positive or negative effect on the dynamics of the healthcare team but it may relate to the other factors discussed such as workload changes and shared experiences within the team. Similarly, the view that team work develops and strengthens as a result of restructuring is identified in other work (Rosengren et al 1999; Hertting et al 2004; Kristiansen et al 2010). These elements are not entirely tangible, reflected by attempts to define it using exploratory research methods. The studies exploring individual experiences and effects on practice during restructuring employ almost exclusively qualitative methods. There are benefits to the professional role of nurses in enabling new ways of working and developing teams as a result of restructuring but this occurs largely in areas where change occurs at individual service level. These effects are not universal, particularly where restructuring has less positive implications for staff from mergers or downsizing. This leads to a workload increase in many cases and a loss of collegial working relationships.

Effects of restructuring on nurses			
Cluster	Factor	Sub-factor	References
Effects of restructuring of hospitals or individual services	Effects on nursing workload	Increases in workload	(Rapport and Maggs 1997; Thorpe and Loo 2003; Venturato et al 2006)
		Increase in use of unqualified staff	(Blythe et al 2001; Doherty 2009; Garon and Stacy 2009)
	Effects on the work role of nurses	Role expansion or enhancement	(Wong 1998; Rosengren et al 1999; Currie and Crouch 2008; Doherty 2009; Durand et al 2010; Wells et al 2011)
	Effects on the control of nursing work	Loss of control	(Blythe et al 2001; Cooper et al 2001)
		Lack of involvement in decisions	(Rosengren et al 1999; Engstrom et al 2002; Wynne 2004; Glasberg et al 2007; Rankinen et al 2009)
		Doing 'more with less' – lack of resources	(Boon 1998; Wilson 2000; Engstrom et al 2002; Venturato et al 2006; 2007; Kristiansen et al 2010)
		Role of managers	(Rapport and Maggs 1997; Rosengren et al 1999; Blythe et al 2001; Moore 2001; Wynne 2004)
		Development of working relationships	(Rosengren et al 1999; Hertting et al 2004; Kristiansen et al 2010)

Table 3: literature summary - effects of restructuring hospital or individual services

Despite the inclusion of studies of both public and private health systems in other countries which may not fully represent the circumstances within the UK, commonalities were found indicating that the personal and professional effects of restructuring have implications for all involved in planning and delivering change to healthcare. At a time of widespread development of services and changing patterns of care delivery in the UK health service further research is needed to develop a clearer understanding of the professional work situation caused by restructuring.

3.5 'High status' hospital services

The reconfiguration of trauma services that has occurred in England has led to the development of MTCs as specialist hospitals equipped to manage the most severely injured patients. As the study progressed this idea of MTCs being seen as 'high status' hospitals emerged in the accounts of the nurses and led to the development of this section of this narrative review - that of the effects of the development of specialist services.

The literature for this section was derived from searches of Medline, Social Policy and Practice and the Emerald Management databases. Search terms relating to the development and effects

of specialist hospitals were difficult to define, possibly due to the inconsistencies in the search terminologies known to exist in computerised databases (Whittemore and Knafl 2005). This led to the use of various synonyms and variations of the terms hospital/organisational “reputation”, and “specialist”, and initially produced 1265 records. The research on the rationale and development of specialist centres is dominated by the effects on patient outcomes. Studies such as those in specialist surgery (Birkmeyer 2000), trauma (Demetriades et al 2005) and stroke (Warlow et al 2008) identify the potential benefits of patient volume and staff expertise as rationale for the development of such services. Papers were excluded if they pertained to patients, clinical pathways or opinion pieces. Following abstract review 32 papers were selected in two distinct areas of ‘high status organisations’ and ‘high status nursing specialties’ (Appendix 4).

Despite other examples of restructuring of services into specialist centres occurring within the NHS in England, such as stroke services across London in 2010 (Healthcare for London 2009), the evaluation of these services in relation to areas other than patient outcomes is not yet forthcoming. No studies were found that looked specifically at the effects of developing specialist services on the staff involved.

3.5.1 Characteristics of high status health services

Defining health services that may hold high status positions proved difficult as search terms did not produce papers relating specifically to such services. There are a number of service and hospital types that are set apart from others by their designation as ‘specialist’, either as centres for education such as ‘Teaching Hospitals’, or through the formal or informal accreditation in the care of specific patient types. These are sometimes referred to as ‘tertiary’ referral centres or hospitals. In the US specialist hospitals are those that provide treatment to patients with particular illnesses and are less likely to part of an institution where there are other services competing for resources (American Academy of Orthopaedic Surgeons 2009). Specialist services in the UK are those designated as such through a process of national commissioning and are provided in relatively few hospitals, being prescribed as such in law (NHS England 2013c). They include critical care, cancer and major trauma. The common defining feature of these services is that they are in some way set apart from the delivery of ‘normal’ healthcare.

3.5.2 Perceptions of nurses toward working in high status organisations

Whilst no studies were identified regarding the effects of developing specialist centres on the nursing workforce, there is accumulated evidence regarding hospitals that appear to hold some 'status' over others, particularly surrounding the US system of 'Magnet' hospitals. Magnet hospitals are formally designated as such based on their strength and quality of nursing and professional practice. They are predominantly found in the US, where original hospitals were identified in the 1980s as acting as "magnets" for nurses due to their work environment (McClure et al 1983), although there is more recent evidence of their development in Europe (Flynn and McCarthy 2008; Van den Heede et al 2013) and also in the UK (Aiken et al 2008). Designation as a Magnet hospital has been shown in multiple studies to have a positive impact on job satisfaction, turnover rates and professional practice and are viewed 'status' hospitals to work in (Ulrich et al 2007; Drenkard 2010).

Cluster	Factor	References
Magnet hospitals	Recruitment	(Rondeau et al 2008)
	Job satisfaction	(McClure et al 1983; Kramer and Schmalenberg 1991; Chen and Johanatgen 2010)
	Retention	(Aiken et al 2000; Armstrong 2005; Lacey et al 2007; Ulrich et al 2007; Schmalenberg and Kramer 2008; Buffington et al 2012; Van den Heede et al 2013)
	Work environment	(Buchan 1999; Buchan et al 2003; Ulrich et al 2007; Aiken et al 2008; Flynn and McCarthy 2008; Grant et al 2010; Trinkoff et al 2010)
	Increase in decision making	(Kramer and Schmalenberg 2003; Ulrich et al 2007; Schmalenberg and Kramer 2008)
	Working relationships	(Kramer and Schmalenberg 2003; Ulrich et al 2007)
	Patient care	(Lacey et al 2007; Ulrich et al 2007; Kelly et al 2011)

Table 4: literature summary – effects of Magnet hospital status

The body of work surrounding Magnet hospital status is substantial, with 18 papers identified, and provides some insight into 'status' characteristics of organisations, albeit from the perspective of the nursing work environment rather than from specific specialist services (Table 4). The original research by McClure et al (1983) concentrated on the organisational factors that contributed to the retention of nurses as 1: leadership attributes of nursing administration; 2:

professional attributes of staff nurses and 3: the environment that supports professional practice.

With specific focus on labour market forces in Canada, Rondeau et al (2008) builds on an earlier conceptualisation of Magnet hospitals as places of excellence being better able to recruit (Kramer 1990). This paper presents the development of a preliminary conceptual framework outlining the strength of market fit and market factors and its impact on turnover and vacancy rates. They test the hypothesis that being seen as a “good place to work” related directly to organisational vacancy and turnover rates. There are some methodological weaknesses identified by the researchers in the use of self-report questionnaires across 713 organisations which may hold a level of subjectivity in assessment of the labour market. Controlling for organisational factors this study found organisations viewed by employees as good places to work and attractive to outside nurses was significantly related to low vacancy rates and turnover. Other studies have similarly found that the effect of a positive reputation is an increased ability to recruit (Cable and Graham 2000; Turban and Cable 2003).

The majority of studies evaluating Magnet status against a variety of outcomes use quantitative methods, most commonly survey instruments using a variety of measurement scales including the Nurses Worklife and Health Study (Trinkoff et al 2010), the Practice Environment Scale (Kelly et al 2011) and the Nurse Work Environment Scale (Aiken et al 2008). This makes direct comparison of these studies on the nursing workforce difficult but there are similarities in the categorisation of findings into areas such as nursing work environment, nursing workload and job satisfaction. In a cross section survey of nurses prior to and following designation of Magnet status in the UK, nurses in Magnet hospitals scored significantly higher for their nurse work environment – with increased involvement in decision making, than nurse informants from non-Magnet hospitals. Within public health services there is some evidence that organisations that have a good reputation are better able to recruit. For example, a mixed methods study exploring the employment considerations of London-based nursing students found that institutional reputation was one of the most important considerations in applying for their first job (Brodie et al 2005).

Kelly et al (2011) assessed the practice environment of Magnet and non-Magnet hospitals using the validated Practice Environment Scale (PES; Lake 2002). This tool examines the organisational features of the workplace including staffing, availability of resources and nurse-physician working. In a survey of nursing staff (4562 from Magnet; 21,714 non-Magnet) Magnet hospitals had a significantly better work environment than non-Magnet hospitals and a greater proportion of specialty certified staff ($p < 0.05$) and those with higher educational attainment ($p < 0.001$) than non-Magnet. This paper suggests that they viewed as an attractive work setting by this group of nurses, echoed by Trinkoff et al (2010) who assert there is an implicit assumption that the Magnet status of hospitals makes them more appealing to work in.

The body of work on Magnet hospitals provides some insight into the characteristics of work environments viewed as 'status' but this is concerned with the organisational context rather than individual departments. There is some evidence that status is also ascribed to particular work settings by nurses based on the typology of patient.

3.5.3 'Status' nursing specialties

In defining the characteristics of Magnet hospitals Kelly et al (2011) found that Magnet accredited institutions were more likely to be teaching hospitals and have access to high levels of technology, something seen as attractive for some nurses (Alameddine et al 2009). These highly technical and specialised services are found to be more prevalent in non-rural hospitals in the US (Baernholdt and Mark 2009; van Teijlingen and Pitchforth 2010), and this is likely to be the case for the UK also.

The apparent attractiveness and status of areas where there is a high level of technological input was found in the work of Stevens and Crouch (1995; 1998) who identify a hierarchy of nursing specialties among nurses selecting an area in which to work. The literature found shows an emphasis on the preference for technical skills in place of the psychosocial elements of caring. Stevens and Crouch (1995) determine this distinction as areas that involve 'care' in giving attention to and looking after (elderly care for example), and those such as surgery and critical care where the philosophy is seen as 'cure'. In their study newly graduated nurses expressed a preference for those areas of nursing where the concept of 'cure' predominated. This supports the findings of previous work where the challenge and pace of this type of work

meant it was viewed as attractive (Happell 2002; Kloster et al 2007; Macintosh 2007). The challenge of working in certain areas was identified as an influencing factor in career choice for qualifying nurses. In a study by White (1999) professional challenge was ranked by more than 50% of group as important determinant of career choice (n=42). This challenge is associated in other studies with 'interesting' and 'preferred' places to work, the type of nursing selected and the need to be stimulated in the work environment (Happell 1999; White 1999; Ring 2002; Cronin and Cronin 2003; DeKeyser-Ganz and Kahana 2006; Kloster et al 2007; Cooman et al 2008; Fenush and Hupcey 2008; Shih and Chuang 2008). Emergency nursing is considered to one such 'status' nursing specialty.

3.6 The context of emergency nursing

Emergency nursing is a complex and challenging specialty requiring those working in the area to develop the knowledge and skills to care for a diverse patient group. Internationally emergency nursing work has evolved in response to governmental and professional influences to cover a variety of settings including the ED, community health clinics, remote medical facilities and pre-hospital settings (Jarman 2012).

Whilst there were 347,994 qualified nurses working in the UK NHS in 2013 (Health and Social Care Information Centre 2014), the exact numbers of nurses working in EDs are not recorded. This may be in part due to the lack of registered accreditation of specialist 'emergency nursing' courses that are undertaken by some as part of academic programmes of study. As attendance at such courses is not compulsory in the UK, many nurses working in EDs do not complete specialist courses. In the US there is a process of central registration of qualifications and there are 34,000 board-certified emergency nurses (Board of Certification for Emergency Nursing 2014). In the UK there is also a lack of formal guidance on staffing levels in EDs, which makes the prediction of numbers of those working in the setting difficult. In my professional experience 'large' EDs, those with attendances of over 100,000 a year, will have a nursing workforce of over 120 individuals.

The role of emergency nurses is characterised by the assessment and management of patients presenting with a wide range of conditions where care is often focused on maintaining life, stabilization and minimising the effects of illness or injury (Hawley 2000). There is little empirical

evidence regarding the work of the emergency nurse some international consensus regarding the breadth of the role being tied to the typology of the patient in the ED. Consensus however has not brought universal definition, but the provision of care to a diverse patient group is reflected in a number of texts (Sbaih 1997a; Endacott 2002; Fry 2008; Emergency Nurses Association 2010). Within the UK the Royal College of Nursing defines the emergency nurse as one who “accepts without prior warning any person requiring health care with undifferentiated and undiagnosed problems originating from social, psychological, physical, spiritual or cultural factors” (Royal College of Nursing 1994).

This definition has not been superseded in the UK despite the changes to the role of those working in EDs caused by increasing patient complexity and advances in the use of technology. The acknowledgement, through definition, of the role of emergency nurses in caring for patients presenting with a range of conditions, including those considered to be ‘minor’, is not reflected in the descriptions of ED nursing work found in the literature where the focus on the components relating to critical illness and injury. It is these technological aspects and high care aspects that seem to dominate the literature regarding emergency nursing practice and are considered a draw to the specialty (Cronin and Cronin 2006; McCann et al 2010; Patterson et al 2010).

The literature exploring emergency nursing work as a therapeutic activity is limited, although there is some work on scope and specific attributes required of emergency nursing practice. Such attributes were emphasised in the work of Sbaih (1997b; 1997c; 1997a) who used ethnography to explore the work of those practising ED nursing. Sbaih found that ED work was represented by two types of nurse, those identifiable as ED nurses and those who worked in ED but were not readily identifiable as specialist ED nurses. This was articulated through a set of maxims, or behaviours, underpinning work recognised by others as characterising ED practice. This work stipulates that the culture of emergency nursing is based on dealing with uncertainty, decision-making, risk taking and “doing more than one thing”, and that adherence to these maxims leads to becoming an ‘emergency nurse’ (Sbaih 1997b).

In an exploration of the work of emergency nurses through discourse analysis Helsop (1998) found that specific functions of the emergency nursing role included rapid assessment, problem

identification and prioritisation. This study explored the views of only three nurses, selected by their potential for data richness rather than representativeness, but identified that individualised care to the patient was stifled by the organisation of care in the ED which turned patients into 'objects'. This is reflected in other studies examining the nurse-patient relationship in the ED where patients feel like objects and their interactions with nurses are subordinated by the need for efficiency and protocol driven care (Nyström et al 2003; Wiman and Wikbald 2004). These studies support in part the notion of emergency nurses favouring medical aspects of their work, although specifically in the work of Heslop (1998) there was resistance by ED nurses to the view of their role being seen as technical.

Despite the technological aspects of care, emergency nurses still require the knowledge and skills to manage clinical situations and non-clinical and interdepartmental work in organising patient care. ED nursing, characterised by diversity and unpredictability, is increasingly seen as a specialist area of practice requiring specific skills and knowledge in the workforce. The lack of exploration of the role of the emergency nurse led Nugus and Forero (2011) to use ethnographic methods in examining communication and interaction in emergency nursing. This work, part of a three-year ethnographic study on the role of emergency nurses in Australia, focuses on the how the work of ED nurses is affected by organisational pressures, and presents a picture of the ED nurse as requiring social, management, clinical and organisational skills in their role. These skills are used to negotiate with other staff members to address external pressures such as overcrowding, a situation of lack of environmental capacity caused by high patient volume.

The role of the nurse in the provision of care in the ED is not widely explored but there has been an attempt to determine its key characteristics. Within the role nurses encounter a wide range of patient conditions, including the major traumatic injuries that are the focus of this work. These types of encounters are viewed as a positive draw to emergency practice but there is further need for a better understanding of how this type of work impacts on nursing staff.

3.7 Chapter summary

This chapter has provided a narrative review of the issues relating to the effects of restructuring and the development of specialist services on the nursing workforce, and provided context to

the emergency nursing work. Pertinent literature within this chapter is returned to within the findings and discussion in chapters 6 and 7.

Although the need to involve nurses affected by the change process was identified as an important consideration none of the studies specifically evaluated whether involvement of staff had an impact on the success or otherwise of restructuring initiatives. The potential consequences of developing services on the workforce are not wholly considered in restructuring and cumulatively the evidence shows the process can cause increased pressure on the employee from environmental, professional and workload changes. This includes effects on professional lives and aspects of role change, care delivery and working relationships. The review revealed limited exploration of the effects of restructuring on nurses working in the NHS and a paucity of literature that explores the impact of changing the delivery of specific specialist services on the work situation of nurses. The research evidence is lacking in determining the experiences and views of nurses toward this type of change. As the largest health professional group it is important to capture the experience of nurses in this area to develop an understanding of the impact of service restructuring on healthcare work. Those studies in this review using qualitative methodologies provide useful insight into the individual experiences and perceptions of the effects of restructuring on staff. In particular the work of Rapport and Maggs (1997), employing interviews alongside participant observation, to explore the nature of care within district nursing provides insight into the complexity of care delivery in this setting. Whilst now historic the changes to the community services at the time of the study were driven by government policy for reorganisation in a way that is being replicated across other healthcare services in the UK. This echoes the current agenda regarding the organisation and delivery of major trauma services that has occurred in England and is the focus of interest in this study.

The emerging work environment in Major Trauma Centres and the views of those working within them have yet to be examined, and as such requires an exploratory approach to examine the experiences and perceptions of the nursing workforce toward the restructuring and development of these specialist services. The next chapter considers the design and methods used in this study.

Chapter 4 Methods

4.1 Introduction

This chapter describes the design of the study. It starts with a rationale for the selection of an approach derived from ethnographic methodology, specifically focused ethnography, to achieve the aims of the study. Procedures and methods in relation to the conduct of the study are presented, including the process of gaining access to the field and ethical considerations.

The previous chapter identified gaps in knowledge relating to the experiences and perceptions of the nursing workforce toward the restructuring and development of specialist services and made argument for the use of qualitative methods as most appropriate for addressing them. There has been limited in-depth qualitative exploration of the effect the delivery of specialist services have on the staff involved and on their work situation, and there is general under-representation of the experiences and views of nurses toward service reconfiguration. There is also recognition that the evidence-base informing health policy should include the use of both quantitative and qualitative data to provide a more comprehensive understanding of the issues (Finfgeld 2003; Jack 2006).

4.2 Study design

Due to the relatively novel status of the topic area, an exploratory approach was selected. The choice of qualitative methods, informed by ethnography, stems from their potential to address the study aim in exploring the perspective of emergency nurses working in an MTC. Other approaches to exploring the viewpoint of nurses such as phenomenology were evaluated and rejected in favour of this approach as it was important to situate the experiences of the nurses in the newly emerging work setting of the MTC.

The purpose of using a qualitative approach, with the emphasis on developing an understanding of experiences, was to explore the dynamic and individual aspects of the nurses work situation. Qualitative approaches, to which there are a number of theoretical and epistemological standpoints, can enrich understanding of complex situations particularly where little is known (Silverman 2010; Punch 2014), and there is recognition of the distinctive contribution of qualitative methods in applied research in revealing the complexity of healthcare

delivery (Bowling 2009). Qualitative research in healthcare has become increasingly diverse with several emerging methodologies, such as interpretive or qualitative description, moving away from the epistemological standpoints of grounded theory and phenomenology commonly associated with qualitative inquiry (Thorne et al 1997; Sandelowski 2000; Thorne 2011). This has led not only to opportunities in utilising these generic qualitative methodologies but to the development of a range of contemporary approaches in other qualitative fields such as ethnography.

There is no single agreed meaning of ethnography but defined broadly it is a methodology that aims to provide a rich descriptive account of a social world. It has been described as a social research method characterised by developing an understanding of the culture of the natural setting (Hammersley and Atkinson 2007; Scott-Jones and Watt 2010). Its intention is to learn the 'insiders' or emic point of view in gaining an understanding of the norms, values, origins and roles – the culture of the group. For ethnographic research, the emic perspective is central to discovering social and cultural perspectives, based on the assumption that this information can only be elicited through the first-hand accounts of the researcher.

The origins of ethnography are rooted in social sciences in a variety of epistemological and theoretical traditions and widely associated with anthropological studies. These studies developed in the early 20th century to understand tribal cultures, characterised by prolonged episodes of fieldwork exploring the cultural views and practices of remote, small-scale communities and others. As they assumed the notion of distance between the researcher and the observed they were seen as objective in providing authoritative accounts of the practices of the population being studied (Savage 2006; Lambert et al 2011). Many texts on ethnography support this notion of ethnography as immersion in the field, the emic perspective and dense analytic description, although challenges to the claim that these classical interpretations of ethnography provide a holistic description of a culture have arisen as a result of the potential for influence and bias of the researcher in the study setting (Hammersley and Atkinson 2007; Gerrish and Lacey 2010; Schensul and LeCompte 2012).

In response to these criticisms and with the move toward the study of culture in other settings, there emerged in the 1940s and 1950s new models of ethnography that expanded their

descriptive focus to developing links between theory and practice. Broadly these types of ethnography are termed 'applied' in studying aspects of everyday organisational life in settings such as education, health and industry. The work of sociologists in both the UK and the US studying city social life gave rise to urban ethnographies and in particular the ethnographic approach of the Chicago School (Lassiter and Campbell 2010; Lambert et al 2011). Ethnography has since not been limited to one disciplinary field and this divergence from its anthropological roots has added to its complexity and led to it becoming decontextualised in a variety of ways dependent on ontological and epistemological standpoints. The term 'conventional ethnography', used by Murchison (2010) to describe the study of a particular culture through first-hand involvement of the researcher is used here to provide distinction from other specific types of ethnography that have emerged in response to specific applied research fields such as education and health.

Alongside the Chicago School there developed a number of other approaches to examining aspects of culture, with the development of these differing types of ethnography and their variable characteristics shaped by the views of their various exponents. Following the Second World War, Whyte (1948) undertook a study exploring the cultural impact within the new ethnographic context of industry. This further developed into the field of organisational ethnography. In a review of ethnography history Clair (2003) outlines the role of the critical scholars in World War Two in leading the development of critical ethnography that moved away from seeking to describe and interpret culture toward a critical stance aimed at developing knowledge to inform change (Brown and Dobrin 2004).

These methodologies share the fundamental characteristics of conventional ethnography in their focus on culture and use of qualitative interpretation, but are distinguished in their application. Further types of ethnography are summarised in Table 5. It is argued that this diversification of methodological approaches compliments conventional forms of ethnography (Knoblauch 2005).

Type of ethnography	Features	Disciplinary roots	Reference(s) / key exponents
Classic/conventional ethnography	Study and description of cultural group and beliefs through observation in natural setting	Anthropology	(Malinowski 1922)
Critical ethnography	Combination of ethnography with critical inquiry, inherently political, ethical and social. Aim of social transformation and giving voice to marginalised groups with the aim of changing culture	Critical scholars	(Willis 1977; Brown and Dobrin 2004; Madison 2005)
Focused ethnography	Application of ethnographic approach to a small group, social unit or part of a culture	Health sector	(Muecke 1994; Knoblauch 2005)
Institutional ethnography	Takes a particular work practice or social group as the starting point. Explores how experiences of group are socially organised with emphasis on system-level co-ordination through texts and discourse	Business	(Smith 2005; Long et al 2008; MacKinnon 2008)
Organisational ethnography	Ethnographic study of a particular organisational and its process, and organisational life	Industry	(Whyte 1948; Rosen 1991)
Rapid ethnography	Rapid appraisal of change or work situation, examples largely in private sector, industry and public health. Combines qualitative and quantitative methodologies	Private sector industry	(Scrimshaw and Gleason 1992)
Micro ethnography	Formulation of insights into smaller experiences or a “slice of everyday life”, utilised particularly in educational settings	Education	(Smith 1978; Stokrocki 1988)

Table 5: types of ethnography

There has been an increasing use of ethnographies to study the discrete phenomena that occur within health settings. Such ethnographies have been undertaken across diverse clinical areas in acknowledging cultural beliefs and their association with health behaviours and illness processes (Roper and Shapira 2000; Savage 2006). As a consequence, these ethnographies have evolved to include examinations of organisational and clinical practices, supporting the complex dynamics that occur in healthcare and in describing culture as a means to understand how people experience their work (Huby et al 2006; Savage 2006; Dixon-Woods and Bosk 2010). Nastasi and Berg (1999) advocate the use of ethnography in healthcare to describe and monitor the process of change within work environments particularly in the development of work practices and its effects on individuals.

4.2.1 Focused ethnography

A further sub-type of ethnography identified in the literature from the mid-1970s is that of 'focused ethnography', often presented as a pragmatic approach to undertaking studies that are time-limited and restricted to a specific context (Handwerker 2001; Knoblauch 2005). Such studies have been identified similarly as 'topic oriented' (Hymes 1978), 'mini' (Leininger 1986) and 'particularistic' (Boyle 1994). Both Spradley (1980), and Polit and Beck (2008) provide further distinction in separating ethnographies that explore complex or multiple societies as 'macro-ethnography' from small scale, single focus 'micro-ethnographies', although in practice this term occurs more readily in describing such studies undertaken in educational settings.

Focused ethnography is considered by some to be distinct from other forms of ethnography in that it concentrates on elements of a particular setting or a single situation, rather than a whole cultural system, usually in order to address a question formulated prior to entry into the field (Muecke 1994; Handwerker 2001). In contrast to the open stance of conventional ethnography whereby culturally significant behaviours are identified in the field, focused ethnographic fieldwork is premised on clearly formulated research questions. Focused ethnography enables the researcher to select the topic prior to fieldwork and then limits this to the subject in question (Cruz and Higginbottom 2013). It is argued that this focusing presupposes familiarity and prior knowledge of the field of investigation which is in contrast to the more open approach of conventional ethnography that defines parameters during the fieldwork (Cicourel 1992; Knoblauch 2005). Exponents of focused ethnography acknowledge the potential weakness that such attention to a particular element of a situation may decontextualise the phenomenon. However, Meucke (1994) argues it is this case-specific emphasis that is central to its use in discovering "what is happening" to individuals and groups within a particular setting.

The role of ethnography in eliciting the cultural perspective of a phenomenon remains within focused ethnography although Wolcott (1994, p.86) asserts that culture in ethnography can be the mission rather than the outcome, and that "there is no ethnography until culture makes an entry, no matter how tenuously". This is elicited in focused ethnography, as with other methods, through gaining the emic perspective of participants.

Debate exists surrounding the development of focused ethnography and in particular its growth as a distinct methodology. Hammersley (2006) argues that the expectation of 'modern' ethnographies should no longer be of prolonged periods of immersion in the field associated with its anthropological roots, asserting that short, context specific studies are seen as a progression in the field of ethnography as it has adapted to suit contemporary research where academics have an increasing requirement for productivity. Despite this view, many studies use the term 'focused' to describe research limited to exploring specific aspects of a field setting or those restricted to certain aspects of inquiry.

Roper and Shapira (2000) suggest that most ethnographies exploring aspects of nursing are focused in nature, with pre-determined questions intended to concentrate study of a specific area over a shorter period of fieldwork. For instance, focused ethnography in nursing has been used to describe the experiences of nurses in applying evidence into practice (Kitson et al 2011), to examine role implementation and evaluation in a mental health unit (Neal et al 1999) and investigate the role of nurses in community settings following service restructuring (Rapport and Maggs 1997). Within the trauma setting, Yun et al (2003) used focused ethnography to understand the role of leadership within initial assessment and management of the injured patient. This study used ethnographic fieldwork, carrying out 55 hours of observation over a 6-month period to observe trauma assessment. Alongside the observation were periods of shadowing of key members of the trauma team and formal and informal interviews with staff members. Participant observation and interviews have similarly been used in other studies exploring team work within the trauma setting (e.g. Cole and Crichton 2006; Sarcevic et al 2011; Speck et al 2012).

The decision to position this study as a focused ethnography was two-fold, firstly it embodies the characteristics of this type of research identified above and described by others (Muecke 1994; Roper and Shapira 2000; Knoblauch 2005), in particular in selecting the key areas of exploration prior to entering the field and the use of my familiarity of the working practices to direct the fieldwork. Secondly, categorising this study as being 'focused' on a specific element of the work situation of emergency nurses within their wider practice setting distinguishes it from ethnographies exploring the broad context of emergency nursing as a large and varied field of work. It demonstrates the possibilities for focused ethnography as a methodology in exploring a

specific aspect of a larger work setting, in this case the area of major trauma practice within the ED.

The research methodology set the direction of the study and guided the choice of participant observation and interviews as data collection methods both of which are common within ethnography. The following section presents the conduct of the procedures and methods.

4.3 Procedures and methods

Ethnographic research is a general approach rather than a set of specific procedures. It allows the research focus to develop as the study progresses, and for the researcher to determine what information is required utilising multiple methods of data collection (Robson 2002; Riemer 2010). The intention of this section is to outline the specific procedures and methods used in the collection of data for this study and the concomitant ethical considerations. The role of participant observation in the field will be discussed first, also encompassing the role of conversation. This is followed by an explanation of the procedures surrounding face-to-face interviews.

Data were collected in a London ED using participant observation, conversations and semi-structured interviews. Wolcott (2005) describes these types of data collection strategies used within the framework of ethnography as ‘experience’ (participant observation) and ‘enquiring’ (interviews). These methods supported the principles of focused ethnography outlined by Muecke (1994) and Knoblauch (2005) and summarised in Table 6.

Features of focused ethnography (Muecke 1994; Knoblauch 2005)	Application in this study
Focus on a discrete community or organisation or social phenomena	Experiences of emergency nurses working with a Major Trauma Centre
Context specific	Restructuring and centralisation of major trauma services and its effect on the work of emergency nurses
Episodic participant observation	Short term field visits in gaining insight into the context of the workplace setting of emergency nurses in the MTC
Involvement of a limited number of participants	Participants selected based on their involvement in the situation under exploration
Participants usually hold specific knowledge	The study aim to explore the impact of restructuring on emergency nurses required the selection of participants with specific knowledge of the field

Table 6: features of focused ethnography and application

Further discussion of the application of focused ethnography methodology will be made within the detailed account of data collection. Prior to commencement of the study the key considerations regarding choice of site and access were addressed.

4.3.1 Choice of study site – the ‘field’

The field for the research, defined by Schensul and LeCompte (2012) as its physical setting, was the Emergency Department of a London MTC and the nurses working within it.

There are four MTCs in London, and at the commencement of the study these were the only hospitals in England operating formally in this capacity. As outlined in Chapter 2, hospitals with MTCs provide emergency and specialist care to severely injured patients and are characterised by having all the facilities required on a single site, including an ED, critical care and specialist surgical teams. The organisation of care delivery to severely injured patients involving multiple specialties and the specific service requirements of such centres means the characteristics of MTCs across London are similar. In the selection of the field setting a number of considerations had to be taken into account including researcher role, local collaborator engagement and site approvals. As I was employed as the senior clinical lead for trauma working in one of the MTCs I considered the pros and cons of selecting this as the study setting. Bonner and Tolhurst (2002) suggest that being already socialised and having background knowledge the researcher is able to settle into the field quickly and bring a unique perspective to the research. But whilst there are many instances of researchers undertaking fieldwork in their own areas of practice (for example, Roberts 2007; Gillespie et al 2008), these tend to be in situations where there is no pre-existing managerial association with the participants. Within this study my senior position could have detrimentally affected research interactions and been viewed as exploiting existing hierarchical relationships. This may have inhibited honest expressions of feelings by participants. Participants can find differentiating between roles of the researcher difficult as Simmons (2007) found when undertaking a study of the Nurse Consultant role in her own organisation. Whilst skilful communication and separation of researcher and work roles in the workplace might have overcome these issues, the effects of this potential conflict on the findings may not be known and therefore the MTC where I work was excluded as a site option.

I finally chose an MTC that had not been operating any specialist trauma services prior to the development of trauma systems in 2010. The study could then examine experiences resulting from a defined designation process that had occurred in the hospital emergency department. In order to enter the chosen study site as a researcher a number of formal and informal approval processes were required covering ethical considerations and access permission. In practice these occurred simultaneously and included elements of the same discussions but are described here separately.

4.3.2 Site access and ethical considerations

In order to comply with research governance arrangements for undertaking research in the NHS, ethical approval was sought and granted through the NHS Research Ethics Committee (Stanmore 11/LO/1766). This determined that written consent for access to the site as a whole was required. Subsequent permissions and site access were gained from the Research Office. Research ethics approval and site access constitute only one part of ethical issues that must be considered, others concern the conduct of the study such as the relationship between the research and the participants are discussed within the specific methods sections in this chapter.

Alongside preparation for formal approvals a contact with a senior nurse proved encouraging and supported access to the field. This senior nurse had 'control' over the access to the resources required for the research (the field setting and the potential study informants), a role identified by Fetterman (1998) as 'gatekeeper'. The research topic was of interest to the gatekeeper personally and this was positive in creating a shared interest. There were some initial expectations from the gatekeeper that the project would provide an evaluation of trauma care in the ED but this was discussed and dispelled and an agreement made to provide regular feedback on any emerging findings.

At the initial meeting there was clear encouragement for the study and quickly a start date for the fieldwork was agreed along with practical arrangements such as identification passes and security access. To ensure staff were aware of the study, agreement was obtained to place posters (Appendix 5) and information on the 'research' notice board in the staff room of the ED. The development of the gatekeeper relationship also gave support for practical aspects of the fieldwork such as locating a room for conducting interviews and release of staff during working

hours to participate. This gatekeeper proved invaluable in furnishing knowledge of the field to ensure that appropriate settings and timings were selected to maximise access to participants during fieldwork.

A professional relationship existed between me and the gatekeeper and this was beneficial in enabling the social placement with others in the department. It was used as a way of establishing a common link between the researcher and those in the study setting (Green and Thorogood 2007). I felt this gave me both credibility and legitimacy within the field. The ability of participants to associate the study with a local gatekeeper was valuable in promoting trust – “the more trust the group places in the gatekeeper, the more trust it extends to the ethnographer” (Simmons 2007, p13). However, whilst the explicit support of the senior nurse was productive in many ways, it was necessary to counter the potential view of my being there as a ‘spy’ by emphasising to participants the independence of the study and the role of the researcher (Roper and Shapira 2000). For the most part I was not particularly conscious of this within the field setting but other studies have highlighted how important this is. For example, in a study of ethnography within her own ED, Cudmore (2007) felt she was betraying colleagues by observing and commenting on their practices in the workplace and this recurred throughout her study.

“I often felt an acute sense of tension during the research process that it might be construed that I was ‘spying’ on my colleagues, and thus betraying them by subjecting their practices to scrutiny”

(Cudmore and Sondermeyer 2007, p31)

Whilst the initial gatekeeper was invaluable in granting permission for my study she was rarely there in person when the research was being conducted and a second and less formal type of negotiation to the field setting was required. This is described by Roper and Shapiro as “getting your foot in the door” (2000, p55), and took the form of support from two other nurses who were introduced to me early in the study and voluntarily were supportive in becoming key contacts. They provided a ‘friendly’ and consistent face during data collection and actively promoted the study which raised awareness of the research and had the result of making my approaches to nurses in the department seem easier. The value of these informal gatekeepers to the successful completion of the study cannot be underestimated and they gave me explanatory information as well as connecting me to others in the ED willing to participate in the research.

Fieldwork was usually scheduled on days they would be in the department as they provided facilitation into the field, access to staff for interviews and provided useful background to practices in the department. Over time their role also developed into providing a valuable level of personal support and debrief on the research.

4.3.3 Fieldwork and participant observation

Fieldwork is the commonest form of ethnographic work and is balanced between observation of the setting, interviewing and the use of other sources of evidence (Wolcott 2005). This section deals with the process of participant observation as a means to observe the physical, cultural and social context of the setting to gain an 'insider' perspective (Wind 2008).

Participant observation is synonymous with fieldwork methods and integrates observation, questioning and listening. From a conventional ethnographic perspective participant observation is seen as the primary method of data collection, but it is not viewed as central or even necessary within focused ethnography (Morse 2007). In focused ethnographies the longitudinal view of fieldwork occurring over extended periods of time has less emphasis and is replaced by observation of specific aspects of highly differentiated environments (Knoblauch 2005). The adaptation of ethnographic approaches is identified by Wolcott (2005) as a consequence in part to the academic constraints surrounding much ethnographic work, arguing that time on its own does not ensure rigour and that any doubts raised by shorter episodes of fieldwork need to be addressed through presentation of breadth and depth of data.

The decision to use participant observation within this study was made firstly to provide understanding of the context and orientation to the field and subsequently to provide access to the nurses in their work setting. Participant observation is also effective in demonstrating contrast between verbal and observed accounts of behaviour within the field, enabling a more complex account of the situation to come to light (Hammersley and Atkinson 2007). These first-hand experiences allowed the development of a stronger authority base as a precursor to the development of a semi-structured interview guide, further explained in Section 4.4.3. Latterly it provided means a means to validate data gathered during interviews. It may have been possible to collect data by means of interviews only but this would have produced a less comprehensive

account of the setting. This was particularly evident when detailing the clinical events of working with trauma patients that were nuanced in the working practices of the setting.

In line with the principles of focused ethnography that defines the parameters of the research prior to data collection. I entered the field with a tentative idea of aspects needing to be observed informed by both the literature review and my professional experience working in a trauma setting. This meant I had an understanding of the fundamentals of what may occur. Using the background knowledge of the researcher rather than relying entirely on insider knowledge is a feature of the focused ethnography approach (Knoblauch 2005). These initial topics of interest were the geographical layout of the department, the system of work and in particular how the major trauma work was organised, although it was not intended to directly observe patient care but to explore the work situation (the practices and setting) of the MTC.

Different types of participant observation exist on a continuum of involvement and detachment, described in the typology developed Gold (1958) and distinguished by the role the researcher can adopt in the field. These range from the complete observer, who maintains distance and has a concealed role, to complete participation where the researcher's identity is concealed and they assume a 'native' role within the group. Further development of this typology is made by Schatzman and Strauss (1973) and Spradley (1980) outlined in Figure 4.

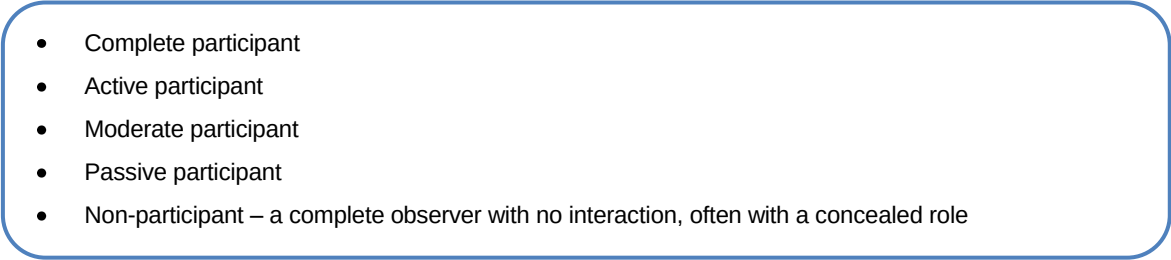
- 
- Complete participant
 - Active participant
 - Moderate participant
 - Passive participant
 - Non-participant – a complete observer with no interaction, often with a concealed role

Figure 4: typology of participant observation

Broadly within this study I undertook the role of passive participant where the status of the researcher is known overtly to the group but does not undertake the activities of the field (Bryman 2012). Whilst a non-participant concealed role was considered, this would not have enabled interaction with the nurses in the ED and the development of relationships that informed subsequent stages of the study through conversations. In outlining some of the intrinsic issues related to fieldwork within a hospital setting Wind (2008) identifies the need for

researchers in healthcare settings to find a credible role when participating in daily events, particularly when not actively involved in a clinical role.

Participant observation involved twelve visits to the ED of between two and six hours over a period of five months, totalling nearly 53 hours. In other studies using observation within the ED, the duration of fieldwork varied widely from less than 6 hours (Cole and Crichton 2006) to over 300 hours (Speck et al 2012). Fieldwork was carried out between 8am and 8pm, based on the guidance from the gatekeeper that the processes and staffing surrounding the trauma patient were the same throughout the 24 hour period. This reflected by own knowledge and based on ED work patterns I found it useful to start my fieldwork during the morning period as nurses were more willing to engage in conversation when they were less busy with their clinical duties. On the occasions when I attended later in the day the resus room was busier with more clinical activity but less available nurses to speak with.

Following site and ethical approval a visit was arranged with the gatekeeper to enable a geographical orientation to the department and finalise the practical aspects of undertaking fieldwork. To ensure that the researcher role was clearly identifiable as non-clinical, and in order not to be openly acknowledged as a nurse, I wore my own clothes. All other staff in the ED wore 'scrubs' and not wearing a uniform had the effect of ensuring that there was an explicit distinction between researcher and clinical staff. I considered what to wear prior to each field visit, and always wore a pair of smart trousers and a plain top. I purposefully avoided wearing clothes that I thought may be too smart and therefore be associated with a 'management' role. For myself as a manager I avoided clothes that I associated with work wear in order that I could consciously put myself in the setting with a research perspective. This appeared to have the wanted effect of engendering a level of separation from the clinical work in the department and also in minimising my professional background. Hammersley and Atkinson (2007) present the view that it is necessary to construct a research identity as part of the fieldwork, and whilst I was comfortable with this position of distance in the initial stages of fieldwork, I found my natural tendency was to disclose my professional background to those who asked. In a discussion of their roles in undertaking ethnography in their own practice settings, both Chesney (2001) and Roberts (2007) found it difficult to create a research "persona", instead arguing that the development of reciprocal relationships built trust with the participants.

The gatekeeper provided a hospital security card and in addition a University identification card was worn, again with the expectation that it would be clear that my role was as 'student' and there was a conscious decision to be firstly introduced as a 'researcher'. On the first visit a considerable amount of time was spent discussing the processes through the ED in order to begin to understand how work was organised. There were many reassuring similarities relating to the flow of patients from arrival to discharge with my experiences of other EDs. During this orientation visit introductions were made by the gatekeeper to members of staff in the department, these were more senior members of the nursing team and medical consultants. There was delight when two nurses stated they had seen the research information poster and were happy to be involved.

The original intention was to spend time fieldwork talking to staff in the 'coffee room', a non-clinical space in the ED. This was based on my personal experience of this type of area being informal and sociable and the assumption that nurses were more likely to engage in conversation when they were not worried about their work being disturbed. However in the event the predominant activity in this area was looking at mobile phones and there were rarely any prolonged conversations between staff. An entry from the fieldnotes of this first visit goes some way to explain the difficulties in engaging in this area.

I felt it difficult to interrupt those in the coffee room to introduce myself. Most were involved in their own activities, browsing on mobile phones or reading newspapers. I did not want to interrupt staff during their rest periods without an 'excuse' and no-one questioned who I was. I thought they might be curious as to who I was and I would use this as a mechanism to break into conversation but they did not.

Fieldnotes, Day 1

Early on in the fieldwork this awareness caused me to rethink how to engage with nurses and I took the decision to spend most of fieldwork within a section of the department - the resuscitation room, where the major trauma patients are looked after. This served a dual purpose of being able to observe clinical practice and provide access to nurses with the intention of engaging them in conversation to gather data. The fieldwork initially concentrated on the setting and the organisation of work within the resuscitation room. As the fieldwork progressed and I started to form some analytical ideas around the data, focus shifted toward gaining insights into the working practices of the area, observing preparation of care for patients, listening to conversations between staff members and observing their interactions.

It is generally accepted that the process of field access within ethnography does not end with the site approvals gained prior to entry (Hammersley and Atkinson 2007). My presence in the clinical setting required constant negotiation with clinical staff at each visit and gaining acceptance became a continuous part of the fieldwork. The need to gain informed consent of those in the field is part of the access process but this can be challenging as disclosing too much information has the potential to weaken the basis of the observation (Merrell and Williams 1994). I had gained consent of the institution but not of individuals within the setting and there was a lack of clear boundary in placing myself in the clinical area and observing those who had not given their explicit consent.

Hammersley and Atkinson (2007) argue that there is a tolerance around gaining informed consent in participant observation and variation in the degrees of openness required. In the field I approached the dilemma of how much information to disclose about the study with a degree of pragmatism but I would always introduce myself to those working and let them know the purpose of my being in the resuscitation room. I nearly always emphasised that my aim was to look “broadly” at what it was like to work in an MTC rather than to observe the practice of individuals, this being done with the intention of minimising any potential feelings that I was a threat. Whilst there was an assumption that developing field relationships would be easy to develop this was not always the case. I became aware of the potential for my presence to be viewed negatively during an encounter on my second fieldwork visit where I felt awkward:

A number of nurses preparing for a patient arrival, the nurse-in-charge came in and I got the sense that [he] then briefed some nurses about my presence and that I was writing things down (he beckoned two nurses over so thought I was out of sight and I saw him gesture a writing action and glance over). I felt very uncomfortable in being viewed as suspicious. I left resus for about 15 minutes to go to coffee room (perhaps as a way to 'prove' I wasn't watching the nurses).

Fieldnotes, Day 2

I addressed this with the particular nurse-in-charge later by specifically talking to him about my research and the need to make notes on the environment and setting. The other nurses involved did not seem affected by this encounter and were engaged and interested when I talked about my research and both became interviewees. After the initial visits to the department I began to see familiar faces and felt that most people were not concerned with my presence. This is supported by Mulhall (2003) who notes that once the initial stages of entering

the field are over most professionals will adapt to the presence of the researcher and return to normal activity.

4.3.4 Conversations as part of fieldwork

During periods of fieldwork a large number of interactions with members of staff working in the ED took place. These ranged from short salutations to longer conversations. These conversations are part of a range of interview techniques within ethnographic research, characterised as informal interviews (Roper and Shapira 2000). These conversations were distinguishable from the semi-structured interviews in that they took place in the clinical area rather than within a private space, were shorter in length and not audio recorded. During initial visits these conversations were used primarily as a way to explain my presence in the clinical area and to introduce my research to those in the field. Some nurses were particularly curious and asked questions about the research. I used these cues to recruit a number of nurses as subjects for the semi-structured interviews.

Many further conversations flowed from these initial introductions but I was always mindful not to distract staff from their clinical work and I used my previous experience in emergency nursing to judge the time most appropriate to speak to staff. This was often first thing in the morning, a time when the resuscitation room tended to be quieter, and I always waited until any patients they were looking after did not require any immediate treatment or intervention. Most commonly I attempted to overcome any potential lack of engagement by using opening questions that I felt would be non-threatening and related to specific work issues, as illustrated in this example from the fieldnotes:

I re-sited to the resuscitation room to see if there would be any "voluntary" engagement from staff who might ask what I was doing (they didn't!). I introduced myself and explained my role and why I was in resus to a junior nurse and then asked her how long she had worked in the department as an opening question. This led to a conversation lasting about 10 minutes about what had brought her to work in the department and what her experiences of major trauma had been.

Fieldnotes, Day 1

Other nurses were more difficult to engage and whilst they acknowledged my presence they did not open themselves up to questions. These nurses tended to be those in more senior clinical positions such as Sisters or Charge Nurses, and who were taking responsibility for the ED on a day by day basis as the nurse-in-charge. For this group I adopted the approach explained by

Hammersley and Atkinson (2007) as placing the interviewee in the role of expert to give them a sense of control during the conversation. This involved asking for explanation of 'normal' practice situations or processes in the field as a means to start a conversation. In relation to the nurse in charge who I felt had viewed me questionably I made a particular effort to address him, not only because as a senior nurse he had experience in major trauma but because I felt he could affect my access to other nurses in the department by portraying me or the study in a less than favourable way.

I approached the nurse in charge who I thought had viewed me with suspicion earlier in the day and make a specific effort to talk to him and explain what I was doing in resus with my note book. I apologised for interrupting him and asked if he could answer a couple of questions about the department. I used an opening question of 'can I ask a practical question about who wears what uniform?'. This led to him asking questions about my background and research and we spent about 20 minutes in conversation about his experiences surrounding major trauma and what effect it had had on the department

Fieldnotes, Day 2

The question of how much of my background to reveal during these conversations came up frequently and as I became more confident of my role in the field I increasingly used by own experiences as a 'normal' part of the exchange. This technique, known as reciprocity, was part of the naturally occurring conversation rather than a conscious decision but is identified by McNair et al (2008) as a mechanism to enhance interviews. During his research Ryan (2006) identified that the level of personal information disclosed by the researcher varies but that it is necessary on ethical grounds if requested. I did not find this particularly problematic and found that sharing personal experiences from my own trauma practice encouraged conversation and led to clarification or confirmation of the practices I have observed in the field.

These conversations allowed for questioning of observed events and clarification of the processes within the clinical area. Sixteen conversations were carried out with nurses with a variety of experiences; they ranged in length from 5 to 15 minutes.

4.3.5 Capturing observational data

The need to capture and record data during participant observation is central in fieldwork and whilst there was no specific schedule, I recorded information as fieldnotes structured around the dimensions identified by Chiseri-Strater and Sunstein (2012):

1. Date, time and place of observation
2. Specific facts, numbers, details of what happened at the site
3. Sensory impressions: sights, sounds, textures, smells, taste
4. Personal response to the fact of recording fieldnotes
5. Specific words, phrases, summaries of conversations and insider language
6. Questions about people and behaviours at the site for future investigations (analytic memoing)
7. Page numbers to help keep observations in order

Figure 5: structuring of fieldnotes

Despite having a sense of what aspects I wished to cover during fieldwork I attempted to employ an approach of comprehensive note taking, in particular recording the space, acts and events of the setting to develop an awareness of the practices in the area and to provide me with orientation to the field. This was particularly pertinent as I wanted to ensure that I reduced any preconceptions I had about the area based on my experiences in emergency and trauma nursing in an MTC which I achieved with varying success in the initial stages. I was in the position of being able to observe the clinical processes and procedures in assessing the trauma patient, known as the 'primary survey' and discussed in detail in Chapter 5. I have participated in hundreds of these patient assessments in my clinical role which are always structured in a similar way. On the first occasion I found myself observing as an expert, having frequently been used to acting as a teacher and assessor of the procedures I was observing. This meant I had a critical eye in determining things that could have been done differently and I made very limited notes in my field journal. I realised when it came to expanding my fieldnotes later that evening that I had not really observed what was happening, but rather noted facts about the patient type and procedures. On subsequent observations of similar events I was mindful that this should not occur again and wrote detailed notes on the non-clinical components of what I saw.

As fieldwork progressed this comprehensive note taking developed into the method described by Emerson et al (1995) as 'salience hierarchy' whereby the observations recorded were those perceived to be the most noteworthy. In line with the principles of focused ethnography I had initially explored the system of work and in particular how the major trauma work was organised, and these topics dominated my fieldnotes. It is suggested in ethnographic studies that the tacit knowledge and expectations of the researcher play a major part in the observations that are

annotated (Wolfinger 2002). Atkinson (1992) goes further by emphasising that the boundaries in the field are determined as much by what the ethnographer omits to document as by what is recorded. This is somewhat countered by the view that fieldnotes must provide an audit trail of the evidence of the actions and decisions of the researcher (Mulhall 2003). Mindful of what Fetterman (1998) suggests that in fieldwork the “memory fades fast” (p.144) I adopted the approach of taking a notebook into the field, and in preparation prepared a notebook with a coloured ‘key’ assigned to different aspects that could be captured during observation.

Note taking was avoided during observations although at times a short note was made in response to something perceived to be a key event. These notes were a record of what was observed but also what was said, any questions that were asked in the field and responses. These notes were expanded away from the field prior to leaving the hospital, and often I left the setting at a relevant point shortly after any event in order to ensure that information was captured as soon as possible. This was to avoid note taking in front of participants that may have been perceived as disruptive or threatening (Hammersley and Atkinson 2007). During expansion of the notes any emerging questions or keywords were recorded, which helped with recollection of events and assisted in developing the next phases of the fieldwork observation and interviews. The handwritten fieldnotes were then transcribed onto a spreadsheet, usually later the same day, where they were expanded. An example of fieldnotes and their expansion is included in Appendix 6. In the notebook I included a section of memos where I recorded analytic ideas, and made notes on practical considerations of fieldwork such as the names of those who agreed to be interviewed and the dates and times of meetings.

These analytic ideas are discussed further in the data analysis section to follow but they aided in providing some structure to subsequent visits as the fieldwork progressed. Hammersley and Atkinson (2007) define this as early data analysis as concerned with “formulating and reformulating the research problem in ways that make it more fruitful” (p.25). In the later stages of observation, once I had completed a number of interviews, I found myself focusing on what I came to think of as ‘significant’ events in the field. These were based on the analytical ideas that I was developing and enabled the focus of the study to be narrowed to sample key events and activities. This supports Spradley’s (1980) view that data collection followed by analysis leads to the development of a more focused fieldwork approach. A particular example of this

was the way that the nurses talked of their role in looking after the trauma patient and how it was focused around a series of tasks. During subsequent observations of the preparation for the arrival of a trauma patient I began to keenly observe the way the nurses worked in order to gather more information on this perspective.

4.4 Semi-structured interviews

A further source of data was semi-structured interviews used to explore the features of work in the MTC and gain insight into the experiences of nurses. The interviews commenced once areas of exploration had emerged from the fieldwork and for the most part ran concurrently to the participant observation.

4.4.1 Sampling and recruitment

This study used purposive sampling to select a sample of the study population for interview with the aim of selecting those with experiences and knowledge of the trauma work within the ED. This sampling method deliberately selects “information-rich” participants who can generate data appropriate to the purpose of the study (Patton 1990a; Miles and Huberman 1994; Punch 2014).

Whilst the initial sampling technique selected was purposive, during the course of the fieldwork I also attempted to utilise ‘snowball’ sampling by asking the nurses to identify others who they felt might be able to contribute to the research (Bowling 2009). There is a risk with this technique that it identifies those with similar views as the informant and in the end only one nurse was recruited in this way; this was a senior nurse who was suggested by the gatekeeper as “being involved” in trauma in the department and this nurse became my first participant. Following on from this interview at the start of sampling, I used what Green and Thorogood (2007) describe as opportunistic sampling in interviewing nurses who showed an active interest in the study and were willing to be interviewed. This recruited the first three participants and subsequently I approached nurses with a varying range of experience in both emergency nursing and of working in other departments to gain a more complete understanding of the effects of working in the MTC.

There is much debate regarding sample size within qualitative research and Patton states “there are no rules for sample size in qualitative inquiry” and “in-depth information from a small number of people can be very valuable, especially if the cases are information-rich” (Patton 1990a, p.184). Holloway and Fallbrook (2001) argue that as the goal of qualitative research is not to generalise to whole populations sample size is of less importance than the inclusion of enough individuals within the sample to obtain a clear picture of the phenomenon being explored. Decisions regarding sample size can be guided by what Lincoln and Gobi (1985) term informational “redundancy” when sampling is ended when no new information comes from the interviews. In this sense the sample is the various events or experiences rather than the individual participants. Despite this view the claim for saturation includes an element of judgement from the researcher (Cutcliffe and McKenna 2002).

Within ethnography Morse (2000) proposes that saturation often occurs after 30 to 50 interviews but in an earlier work suggests that within focused ethnography it is necessary to achieve a pragmatic solution to sample size based on the time constraints of the study (Morse 1987). Patton (1990a) echoes this need for pragmatism suggesting sample size is dependent on the study purpose, what is credible and the time and resources available. In a focused ethnography of the transitioning experiences of internationally-educated nurses in Canada, Higginbottom (2011) estimated a sample size of 30 was required to achieve “data saturation and maximum phenomena variation in the sample with regard to age, gender, ethnicity, and dependant status” (p.3), although the sample achieved was only 23. Other focused ethnographies have used between 13 and 28 interviews (Neal et al 1999; Cole and Crichton 2006; Kitson et al 2011) but none of these papers provide a clear rationale for reaching these numbers of participants.

In this study a total of fifteen semi-structured interviews were conducted between July and October 2012, in addition to the 16 documented conversations. The decision to end sampling was made based on the Lincoln and Guba’s (1985) principle that purposive sampling is aimed at maximising information and thus, interviews were stopped when no new experiences or insights were being obtained from the interviews.

4.4.2 Participant characteristics

Nurse interviewees had a range of backgrounds in length of experience, previous employment in other EDs and some who worked at the study site prior to MTC designation. The total number of nurses working in the ED at the beginning of the study was 130. The characteristics of the individual participants are shown in Table 7. The length of time worked in emergency nursing was used as a basis for categorising nurses as 'senior' (more than 10 years' experience), 'experienced' (5-10 years) and 'junior' (less than 5 years). Whilst these were arbitrary time frames they allowed for some categorisation and became relevant during analysis as banding (seniority of rank/grade) did not always reflect the duration of experience. The range of experience in the ED ranged from 10 months to 18 years.

Participant	Gender	Banding	Length of ED experience	Categorisation for study
1	Male	8	>15 years	Senior
2	Female	6	5 years	Experienced
3	Female	6	7 years	Experienced
4	Female	5	10 months	Junior
5	Female	7	6 years	Experienced
6	Female	6	2 years	Junior
7	Male	6	6 years	Experienced
8	Male	6	5 years	Experienced
9	Female	7	15 years	Senior
10	Female	5	2 years	Junior
11	Male	5	2 ½ years	Junior
12	Female	6	3 ½ years	Junior
13	Male	5	1 ½ years	Junior
14	Female	5	1 year	Junior
15	Male	8	> 10 years	Senior

Table 7: interview participant characteristics

4.4.3 Conducting the interviews

Interviews took place in a variety of office-type spaces but predominantly in an assessment room located within the main clinical area of the department that was always vacant. Interviews were scheduled to take place in the work time of the participants with the permission of their line manager. A letter and information sheet describing the aims of the study was sent to

participants in advance of the interview where possible. All nurses received written information regarding the study at the time of the interview which included the topic area, processes for ensuring confidentiality and the intended processes for recording and storing data. All interviews were audio-recorded on a digital device. Opportunity to ask questions was given prior to the interview commencing and a consent form was completed by all the interview participants (Appendix 7).

A flexible interview guide was prepared for use during the interviews based on the data from the fieldwork, the broad themes established in the narrative review and my knowledge of the subject area. I deferred the development of the interview guide until after I had undertaken a period of fieldwork so my observations could shape the topics for exploration. The guide consisted of overarching topics relating to the research aims and specific questions formulated in response to situations observed in the field (Appendix 8). It was organized around two types of ethnographic interview questions identified by Sorrell and Redmond (1995) as descriptive and structural. Descriptive questions were open-ended and aimed to elicit a general view or perspective, for example *"What's it like working here?"*, and these would lead into more structural questions that would provide explanation or verify data obtained in the fieldwork such as *"Can you tell me what would happen in a trauma call?"*. The interview topics were tailored to the job role of the participants and their length of experience in the ED. For example, those participants who had not worked in the ED prior to the development of MTCs were not asked about changes they may have noticed since reconfiguration. The guide was used as the basis for the interviews and as a prompt when participants did not go into detail about a subject. It did not remain a static instrument and newly emergent themes were incorporated into subsequent versions of the guide used in the interviews that followed.

I had conducted semi-structured interviews as part of previous research projects and also within different situations in my professional role, for example, as a chair of investigation panels and as a clinical supervisor. I was aware from these experiences of the need to develop rapport in order to encourage the participants to be open within the interview. The relationship between the researcher and the interviewee can be described as paternalistic and places the researcher in a position of power (Wolcott 2005; Punch 2014). This can have the effect of reducing the willingness of the interviewee to disclose information or be open. My natural position in these

interviews was to adopt an approach that was relaxed and felt more like a conversation. This attempt at developing a more equal relationship with those I was interviewing is reflective of the feminist research perspective in which the researcher does not dominate the interview and works at building a relationship with the interviewee (Rubin and Rubin 2011). Similar to my approach to the interviews during fieldwork this was achieved by self-disclosure and reciprocity in sharing my experiences as a way to enable more openness and insight from the interviewee.

I would most often talk about having some experience of emergency nursing as a way to build rapport and at times would acknowledge the participants thoughts as being similar to my own (in how they described liking work in the ED for instance). Despite this during two of the interviews (numbers 4 and 6) I felt the responses to some questions were short and I needed to rephrase and probe several times in order for the nurses to expand on the points raised. Both these nurses were junior (in terms of their years qualified) and their responses felt to me like those that would be given during a job interview. This made me acutely aware that whilst I felt comfortable as the researcher in this situation that for these nurses their only other exposure to a face-to-face interview was likely to have been during recruitment for jobs. This was reiterated when at the conclusion of the interview one of the nurses asked “was that alright?” and expressed a concern she may have said something wrong. I adopted a critical stance to reflecting on my role within these interviews and made post-interview notes to capture my initial thoughts and during play back of the audio-recordings listened to my phrasing of questions and tone. Following this I explicitly modified the explanation of the interview process to the nurses by establishing that there were not “wrong or right answers” and that their stories and opinions were what was of most interest to me. Despite this the interviews with more junior nurses were always the shortest in duration, perhaps because they had the least amount of clinical experience to share.

4.4.4 Capturing interview data

Each interview was digitally recorded on small device about the size of a mobile phone that was placed as unobtrusively in the room as possible. I did not make any handwritten notes during the interviews but once the participant had left I recorded initial thoughts ‘memos’ on either the conduct of the interview or salient points that I felt warranted further thought in the field

notebook. I then transcribed the interviews verbatim on the same day. Transcripts were then re-read whilst listening to the digital recording as a way to ensure accuracy. Interview recordings were then destroyed.

4.5 The process of analysis

Data analysis did not take place as a distinct stage of the research and was an iterative process interwoven through the fieldwork. Miles and Huberman (1994) emphasise the need for data analysis to “occur continuously throughout the life of any qualitatively oriented project” (p.10).

There are a number of strategies available to guide the analysis of qualitative data, most commonly using a process for developing codes and categories whereby recurrent themes are identified through comparative processes (Green and Thorogood 2007). I selected to follow the qualitative inductive approach of intuitive pattern analysis outlined in the ethnographic methods text of Roper and Shapira (2000). This type of approach is often favoured in healthcare research as it is not associated with a specific disciplinary tradition, and there is considerable overlap across different exponents as outlined in Table 8. The commonality of these approaches is their use of thematic analysis as a way to categorise the data, described as “the search for and identification of common threads that extend through an entire interview or set of interviews” (Miles and Huberman 1994, p.114). Whilst thematic analysis could be considered the most ‘basic’ of qualitative analysis there are elements that reflect the inductive approach of grounded theory where themes are developed through analysis of the data, and in the iterative process of analysis informing subsequent data collection.

There is considerable debate regarding the level of analysis and interpretation applied to ethnographic findings with some studies presenting a purely descriptive account of the field. This is an approach used by Wolf et al (2003) in examining the culture of an emergency department in the US. This work presents a detailed description of the setting and observed events, but makes no attempt to further interpret the data or apply meaning. There is criticism of this stance in not acknowledging the influence of the researchers interpretive frames on the data (Scott-Jones and Watt 2010).

Roper and Shapira (2000) Ethnographic analysis		Thomas (2006) Qualitative data analysis	Miles and Huberman (1994) Analytic moves
Coding for descriptive labels	Memoing to note personal reflections and insights	Initial reading of text	Identification of codes
Sorting to identify patterns		Creation of categories by labelling segments of text	Memoing
Identification of outliers		Reducing overlap and redundancy	Identification of similar phrases, patterns, themes and differences
Generalising constructs and theories		Create a model incorporating significant categories	Take to the field
			Develop small set of generalisation to cover consistencies
			Link to formalised body of knowledge

Table 8: frameworks for qualitative data analysis

It was my intention in this study to explore the perspectives of nurses in the ED regarding the changes to their work in the light of becoming an MTC and to draw on existing literature to illuminate the analysis of these perspectives. The qualitative analysis of the data derived from the fieldwork aimed to detail the practices and experiences of the nurses by exploring the emerging patterns in how these were reported and observed. The iterative process undertaken in the analysis of data does not lend itself to being presented in the linear way that it is presented in the remainder of this section but providing a clear account of the procedures used is a means to enhance the rigour of the study in providing an explanation of the analytic methods (Silverman 2010).

4.5.1 Management of the data

Prior to commencement of data analysis it was necessary to create “a sense of order” (Scott-Jones and Watt 2010, p.159) as a means to make the analysis process possible. This is described by Huberman and Miles (1994, p.428) as the “systematic, coherent process of data collection, storage and retrieval”.

Transcription of the interview data and expansion of the fieldnotes occurred on word processing software but in order to organise the large number of files and allow for data retrieval I utilised the qualitative data analysis software NVivo (Version 9, QSR International, Victoria, Australia). The use of software can assist the qualitative researcher in a range of data organisation and

analysis techniques including memoing, coding and text retrieval (Wietzman 2000; Robson 2002). The software was used to store the data files and also to label sections of the text with codes (or 'nodes') as part of the process of interpreting and analysing the data.

Both Sandelowski (1995) and Scott-Jones and Watt (2010) expand on the need to order the data to be manageable, outlined by Huberman and Miles (1994) to include the development of "first impressions" of the data as the field materials are read and transcribed. I found the process of expanding and transcribing the fieldnotes and interviews allowed for some preliminary analysis and initial thoughts on the data. These ideas were recorded as memos both in my fieldnotes and on the interview transcripts (Figure 6), most commonly reflections or thoughts on the data that I felt may be developed later. These notes and thoughts were also attached to the nodes created within the NVivo software.

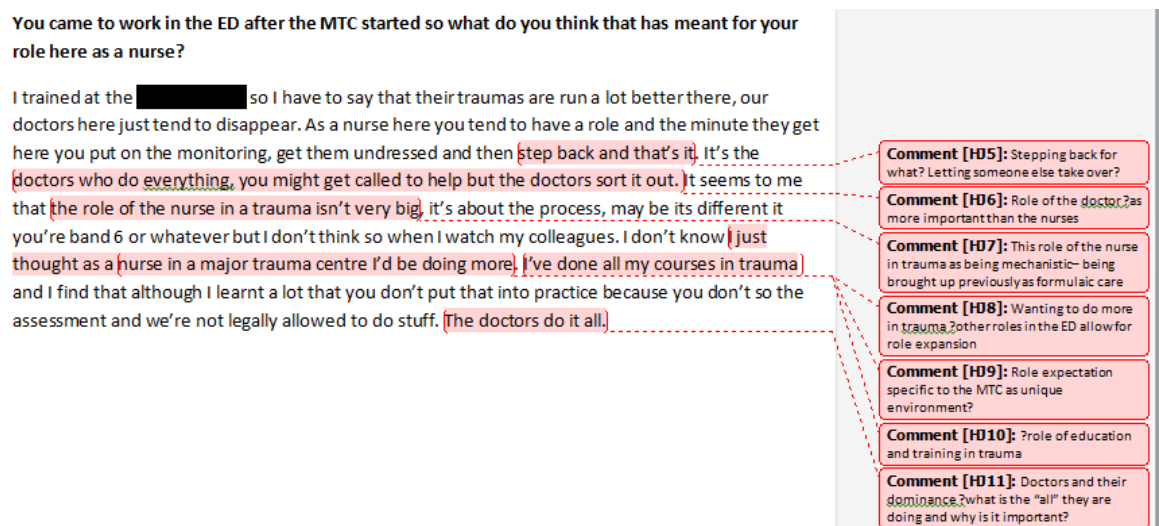


Figure 6: example of memoing of interview

Roper and Shapira (2000) describe memos as reflective remarks or insights that occur at all stages of data collection that may require further exploration. For the most part I recorded what Esterberg (2002) terms 'analytic memos' focusing on the data and my initial ideas about what the data might mean.

4.5.2 Coding

Coding is seen as a way to organise and prepare the data prior to analysis by reducing it into segments of text based around descriptive labels (Esterberg 2002). Coding commenced during

the transcription of the interviews, and fieldnotes and the texts were read and reread with coding leading to broad domains using Roper and Shapira's (2000) labels as a guide:

Roper and Shapira (2000) Examples of codes	Application of codes in this study
Setting	Space and physical description of the ED
Activities	Procedures and processes occurring in the ED, work that was occurring
Events	Specific events such as trauma calls that stood out from the other work that was occurring
Relationships	Interactions between people in the ED
General perspectives	Shared understanding of the working in the ED, such as setting up for a trauma call
Meanings	What people say about their behaviour, for example why they like the ED
Repeated phrases	Regular comments, for example "exciting"

Table 9: examples of codes (Roper and Shapira 2000)

This allowed for multiple codes in the first instance and as I became increasingly familiar with the data the labels were considered and reconsidered. The identification of repeated phrases began to give some sense of how the nurses categorised their work and was aided by the function of 'text searching' in NVivo where it was possible to locate specific or stemmed words. An example of this was in frequent use of variations of the word "excitement" which were identified 38 times within the interview and fieldnote transcriptions in reference to the nurses' work.

4.5.3 Sorting for patterns – the development of themes

Following the initial coding the next step was to review and cluster coded segments in a series of emerging themes that began to capture the essence of meaning or experiences. This was an inductive process of working through the data a number of times to identify patterns. I developed 23 initial categories with some data segments appearing in more than one category. Categories were applied a colour in NVivo which provided an audit trail for my decisions to locate quotes from the interview and fieldnote transcriptions and allowed overlapping themes to be easily identified during initial categorisation. Whilst the themes were not 'a priori' developed before the examination of the data, the process of analysis is influenced by the researcher and

cannot exclude existing ideas or experiences (Hammersley and Atkinson 2007). The process of qualitative data analysis requires a 'principled choice' (Coffey and Atkinson 1996) on behalf of the researcher and whilst some of the findings stood out to me, such as the way the nurses described their role in trauma, I made links in the data to what I knew about ED and trauma work. To aid with analysis each sub-theme was labelled, described and linked to other categories if commonalities were identified (Thomas 2006). An early example of a specific sub-theme that related to the nurses view of the ED work is shown in Table 10.

Label	Description	Associated data	Links to other categories
Variety of work	Includes descriptions of ED clinical and non-clinical work, the work environment, patient typology and the nurses' use of this term specifically. Excludes specific processes around trauma patients.	I think it's the variety and on the ward everything is very regimented and you do your drugs at this time, your obs at this time and you've got your six patients and your paperwork and that's basically your day.	Attraction of ED nursing
		Resus is my favourite place to work, but I don't mind working anywhere as long as I don't get stuck in a hole for too long. I like the variety	Pace and excitement
		The thing about A&E generally is there is a lot more variety and because it's such a fast pace there is more excitement and I mean that it a sort of not a blasé sense but you never know what is coming next.	Recruitment
		Most nurses would still say they like the variety that A&E offers rather than just the trauma I think, or at least I hope, so there is a balance in the work environment even is that balance isn't necessarily translated into the focus that trauma gets.	Contrasts with 'boring' work

Table 10: example of early theme development

I considered the data in several different ways during the process of analysis, grouping around particular events or specific perspectives given by the nurses during interviewing. Through a process of constant comparison of the emerging categories in relation to other categories I verified new information and established points of divergence, described by Roper and Shapira (2000) as identification of outliers. This is linked to Miles and Huberman's (1994) idea of 'negative evidence' where data is reviewed for evidence that disconfirms emerging themes in order to provide a more credible account of the reality.

The sub-themes that emerged from the analysis were grouped together and subsumed within a small number of larger themes as I became more familiar with the overall story of my data

(Appendix 9). Overall, four analytic themes emerged as well as a detailed description of the research setting.

4.6 Establishing rigour in the research

In this section I discuss the main issues in establishing rigour in this study, seen as a means to demonstrate competence and integrity (Tobin and Begley 2004). There is significant debate regarding issues of rigour in qualitative research with several authors arguing the term should be rejected as it pertains to positivist research approaches rather than interpretive ones (Sandelowski 1986; Denzin and Lincoln 2005). There is a general consensus for the need to demonstrate rigour in qualitative research although there is no single set of criteria that are applicable to all qualitative methodologies and examples includes those from Lincoln and Guba (1985), Green and Thorogood (2007) and Silverman (2010).

Lincoln and Guba (1985) determine that rigour in qualitative research is concerned with the 'truth value' of the account and use "trustworthiness" in place of reliability and validity, achieved through the concepts of credibility, transferability, dependability and conformability. A summary of the techniques used in establishing rigour in this study is presented in Table 11.

	Data collection	Data interpretation	Data reporting
Credibility	Triangulation of data sources and methods Purposive sampling	Negative evidence / deviant case analysis Supervisor review	Review of themes by gatekeeper
Transferability	Sampling	Comparison with other studies	'Thick' description
Dependability	Field / research diary Reflexive notes	Memoing Negative evidence / deviant case analysis	Presentation of procedures and data analysis strategies
	Researcher reflexivity		
Confirmability			Use of full quotations Presentation of fieldnotes
	Researcher reflexivity		

Table 11: strategies to achieve rigour in this study

Credibility is concerned with how accurately the phenomenon is represented by the research and whether the methods are appropriate (Punch 2014). The different methods used within this study provided a means to compare data from different parts of the fieldwork through triangulation to enhance credibility (Denzin and Lincoln 2005). There are varied meanings in the

research literature relating to the use of triangulation as a means to confirm research findings through the combination of theories, data sources or methods (Halcombe and Andrew 2005). This use of multiple methods is also seen as a strategy to enhance rigour by adding to the depth and breadth of findings (Fielding and Fielding 1986; Denzin and Lincoln 2005). Within this study participant observation, conversations and semi-structured interviews were undertaken to reveal the context of the major trauma work in the ED and generate and refine themes. These different perspectives on the same phenomena aimed to give a fuller picture of the work situation of nurses working in the MTC. I used the supervisory process to sense check both the thematic analysis and the write-up in order to ensure that I was reflecting the experiences of the participants rather than reflecting my own familiarity with the processes surrounding major trauma.

The extent to which findings from the research can be transferred to other settings or groups is termed 'transferability' (Polit and Hungler 1995), although it is not the intention of qualitative research to produce generalisable findings. Green and Thorogood (2007) assert the need for health research to be useful to practice and I aimed to allow the wider applicability of the study findings to be determined with an explanation of the procedures and use of thick description in the write-up (Geertz 1973). This is also addressed in the concluding chapter of this thesis where I discuss the relevance of the study findings to practice.

An audit trail of the decisions, through the fieldnotes and within the data analysis notes, aimed to ensure a dependability, defined by Hammersley (1992) as "the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions" (p.67). The aim of this was to ensure the process of decision-making throughout the research process was traceable. Auditing also supports Lincoln and Guba's (1985) final technique of confirmability in demonstrating the findings are clearly derived from the data. This is also achieved within the subsequent findings chapters by presenting quotations and fieldnotes to show how the findings are derived from the raw data (Long and Johnson 2000).

4.7 The process of writing up

The final part of this chapter discusses processes undertaken in the write up of the thesis. There is no single 'correct' way in which to present qualitative research and there are a number of ways to organise ethnographic writing. Examples include a chronological format, such as Graham's study of Japanese business strategies and the experiences of workers (Graham 1995), or an approach that employs grouping of themes discovered during data analysis. This thematic write-up was employed in Strong's study of the ceremonial order in paediatric clinics (1980), and Kitson's focused ethnography of change implementation in an Australian hospital (2011). I employed a similar thematic approach to write-up as these studies, focusing on a specific context and the perceptions of those who work in it.

A further element of the approach I have taken in this write-up is informed by the ethnographic methodology text of Wollcott (1994) who identifies three steps for analysing and transforming ethnographic data on which the following three chapters are based. The first is to present a description of the culture sharing group – the work setting. Secondly, the themes that emerged from the data analysis are presented and finally, in Chapter 7 the cross-cutting themes are explored in the context of the wider literature to provide a richer account of the data gathered than if considered in isolation. Hammersley and Atkinson (2007) describe this as a text that is "busy" in defining the occurrences and happenings from the field. It is further suggested that this can be achieved by embedding observations and quotations from the data within this write-up by addition of "commentary, contextualisation and analysis of these quotations and their broader significance" (Scott-Jones and Watt 2010, p179).

Similarly, Fetterman (1998) identifies the two main elements of ethnographic writing as providing a detailed account of the context, known as 'thick description', and in the use of extensive quotations and reference to the field data. The use of thick description is much mentioned within qualitative methods literature and the concept originates in the work of Geertz (1973), although Ponterotto (2006) asserts the term is attributed to the British philosopher Gilbert Ryle in the 1940s. Overall the concept is ill-defined and often contrasted with the term 'thin description' which simply reports the "facts, independent of intentions or the circumstances that surround an action" (Denzin 1989, p.33). The following chapters aim to enhance the data by the use of relevant literature to explain the findings.

4.8 Chapter summary

This chapter has detailed the research design and methods used in the study. The justification for the approach of focused ethnography has been given, detailing its possibilities as a methodology exploring a specific aspect of a larger work setting. The qualitative methods and data analysis techniques employed have been explained, summarising key aspects that enhanced the rigour of the study.

The following two chapters present the findings of the data analysis, starting with an account of the field setting and the organisation of major trauma work in the department.

Chapter 5 Findings: the physical environment and organisation of work

5.1 Introduction

The aim of this study was to explore the perspectives of nurses working in the ED of a recently established Major Trauma Centre (MTC), in particular on what this has meant for the nurses' work situation – what they do and how it is affected by the relationships and setting in which they work.

This chapter first provides a descriptive account of the physical and spatial environment in which the nurses work; this is followed by a description of the nursing work in the resus room, where the major trauma work takes place. Wolcott (1994) refers to this as the “description” of the group. Its aim is to provide context to the work setting of the nurses in order to situate the thematic findings presented in chapter 6. Data are derived largely from observation and supplemented by the nurses' perceptions of events that take place in their work setting relating to the organisation of the trauma work in the ED.

5.2 The space of the Emergency Department

This section introduces the work environment of the ED where the fieldwork was conducted and provides contextual information of the setting. The hospital in which the study took place is a large inner city hospital with over 900 beds. It is one of only four hospitals in London to have been resourced to provide specialist facilities and support services to meet the needs of the grouping described as 'major trauma patients' and is of comparable size to the other Major Trauma Centres. The Emergency Department is the first receiving point for trauma patients brought into the hospital, and overall the work of the ED is characterised by its unpredictable nature and range of patient types.

At the time of the fieldwork the hospital had been operating as an MTC for 2 years and each month had around 120 'trauma calls' (as the organisational approach to this type of patient is referred to) out of an average 11,250 monthly attendances in 2012. The cases observed during my period of observation ranged from people involved in road accidents or fallen from a height resulting in injuries such as internal bleeding or bone fractures. The total number of trauma cases are a small part of the overall patient care activity within the ED (just over 1%). Of the 120

patients per month more than half are either discharged from the ED or remain in hospital for less than 3 days indicating they are not suffering from severe injuries. Despite the level of attention given to the major trauma work patients considered as having life-threatening injuries account for a fraction of the total trauma work and less than 0.5% of all ED attendances.

The ED is open 24 hours per day, 7 days per week all year round and is equipped and staffed to receive major trauma cases at any time. There are 130 nurses employed in the ED of this large hospital, of whom 18 are in senior clinical or management grades, and the rest are categorised as staff nurses, senior staff nurses or sister/charge nurses dependent on their grading (level of seniority). These nurses work in patterns of 'long days' where they work for a 12 hour period and during their working week will usually rotate to working through all areas of the department including the clinical area referred to as 'resus' that provides care to the trauma patients.

The ED is divided spatially into three main sectors, the clinical areas which include patient treatment space, the staff rest areas, and office and meeting accommodation.

5.2.1 The clinical areas

The department has two entrances, no more than 20 metres apart. One is controlled by a keypad entry system for those arriving by ambulance and the other for patients who arrive independently at the ED, known as the 'walk-ins'. The entrances are in close proximity to the main road past the hospital. As is common in the UK, the hospital is a mix of old buildings and newer additions built to accommodate increasing space requirements. The ED is in one of the older wings of the hospital. It has canopies extending above both entrances to provide some shelter but also with large signs indicating which is for "Ambulances Only". The area outside these department doors is busy with people. As the use of mobile phones is not allowed within the department, this area is used by patients and visitors to make calls, and by those who are smoking. These activities carry on alongside those of ambulance crews waiting with their vehicles for their next call, or busy reassembling equipment they have used on the patient they have just delivered to ED. This type of activity was observed to be slow paced and lacking in urgency. Occasionally there is a rise in activity as an ambulance arrives on 'blue lights', a term

used to describe the flashing blue lights on the ambulance that are used to alert those nearby that an emergency patient is being transported.

Once inside these doors the main ED is spread out over a large physical space occupying part of the ground floor of the hospital wing. The first space encountered for patients who enter through the 'walk-in' entrance is the waiting room which has a desk immediately inside the door usually staffed by a nurse whose role is to make a brief clinical assessment of the patient to determine if they can wait and provide information. It is sign-posted as a 'Helpdesk'. Along one wall there is a row of desks where receptionists sitting behind a glass partition to register patient details and answer any queries from those in the waiting room known as 'Reception'. There is usually a nurse within an assessment area that is directly off the waiting room, but there is no medical apparatus and this does not feel particularly like a clinical space, more of a 'holding' area after which one is invited into the rest of the department. This area quite often feels busy as it is the main point of arrival for both patients and relatives. The waiting room contains rows of functional metal chairs that are fixed to the floor and vending machines. Notices pinned to the walls of the waiting room offer information about NHS services, referring to the alternatives to attendance at an ED that are available to those with less urgent conditions. My own experience of working in other EDs made me realise these types of visual messages are a common feature and function as a way of telling some patients that they have come to the wrong place, reflecting a view held by many ED staff that patients with less urgent conditions should go and see their General Practitioner (GP).

Access to the main clinical areas of the department is through three swipe access controlled doors that prevent public access to patient areas without a member of staff. The general feel of the department is spacious, although in places it is cluttered by clinical and administrative supplies, and its location internal to the building means there is little natural light.

From the waiting room patients are 'called in' by a nurse or doctor through one of the doors to the clinical areas that are all on the ground floor level. The ED is organised into different clinical areas that reflect the relative seriousness of the patient's condition, from 'minors' where conditions such as cuts, sore throats and broken wrists are treated, 'majors' where patients with abdominal pain or breathlessness are seen and finally to the 'resus' area where serious or life-

threatening cases are stabilised and treated. There is a section dedicated to children up to the age of 16. These areas are geographically separated by various corridors and doors.

At one end of the department the 'minors' area has a number of cubicles with either a chair for the patient to sit on or an examination couch with curtains that can be pulled round for privacy if necessary. Quite often during my observation this area had a number of unattended patients sitting in cubicles, but they appeared to be waiting with no particular sense of urgency. Of all the sections of the ED 'minors' was the least noisy and whilst it could have a large volume of both patients and staff it felt calm. This area was typically staffed by both doctors and 'ENPs' (Emergency Nurse Practitioners) with an ED nurse assisting with any treatments and managing the flow of patients into the area. ENP are senior nurses who could see and treat patients in this area without referral to medical staff and is a common role in most EDs. Patients in this area did not usually appear to require much input from the nurses and most were discharged following treatment. As a consequence, the nurses were usually only required to carry out treatments as instructed by others such as plastering of broken limbs or applying dressings.

An internal corridor leads from 'minors' into an area known as 'majors' which in contrast to the minors area is bustling and frequently noisy. Patients access this space either via the waiting room or directly from the ambulance entrance. The area is rectangular in shape with single clinical rooms or curtained cubicles down both long sides. In the centre is a long section of administrative desks that face out toward the cubicles and there were always observed to be 5 or 6 doctors and nurses in this area writing in notes or on the computers. Dotted around the area along the walls and by the desks are clinical machines and pieces of medical equipment. Ambulance patients who are not considered to be emergency cases are also brought into this area directly by the ambulance crews and during busy periods I observed a constant movement of patients in and out of different cubicle spaces accompanied by nurses, portering staff and relatives. Patients in this area appeared to have a wide range of conditions from those too unwell to go to 'minors' to those who did not require the immediate intervention provided by the 'resus' room. This included patients with chest pain, abdominal conditions or breathing difficulties. The work in this area was described as representing the most commonly presenting conditions to the ED. The nursing work in this area was observed to be carrying out patient

assessments, giving medication or transferring patients to ward areas of the hospital if they required further treatment.

Through a set or swipe access doors in one corner of the majors area is the internal entrance to the 'resuscitation' room, known to staff as 'resus', where the most critically ill and injured are assessed and treated. This was the clinical area where much of the participant observation that I conducted in this study took place.

5.2.2 The 'resus' room

The resus room is located to the left side of the department and as well as the internal entrance through majors can be accessed almost immediately inside the ambulance entrance through a set of automatic doors activated by a push pad. This is the 'way in' to resus for emergency patients arriving by ambulance and for staff entering the room from that side of the department. The second set of doors to the rest of the department are located in the opposite corner of the room. These doors lead out through majors to the 'back' of the department and act as an exit point to the rest of the ED, the specialist patient scanner ('CT') and into the main hospital. Conversely they also act as the main route into resus for hospital staff who are based elsewhere but called in to offer specialist advice for patients in this area. Patients were observed to come through the 'way in' and then following a period of treatment be moved through the exit doors on the other side of the room and in to the rest of the hospital. These doors make the space feel contained and despite the many different staff members observed coming in to the area, it felt isolated from the activity occurring elsewhere in the department.

The resus room is a large, rectangular space with room for 10 patients in individual areas known as 'bays'. These bays are separated from each other either by a solid wall or by a partition that is around 6 feet high on wheels and screens patients from those in the next bay. There are also blue curtains that can be closed round the whole bay. The room accommodates trauma patients and other emergency cases such as severe chest pain and patients in cardiac arrest and is staffed by approximately 6 nurses. At any time a varying number of nursing, medical and other professional staff were in this area. Nurses make up the largest single staff group in resus and they are assigned to work and remain in resus through their shift. The frequency that they work in the area varies and the allocation of nurses to the 'children's area',

'minors', 'majors' or 'resus' is determined on a day-to-day basis by the nurse-in-charge dependent on the mix of experience among staff on that particular shift. As my fieldwork progressed, I observed that some nurses worked in resus with much greater frequency than others and they often commented to me that they liked it and requested to be allocated there. Numerous other members of staff would come into the resus area intermittently to perform specific tasks. These include those who work elsewhere in the ED such as the reception administrative staff who come to collect hospital notes or use the computer, and the ED radiographers who come in to take an x-ray, and also non-ED staff such as ambulance crew. They tended to confine themselves to carrying out specific tasks and then leave as soon as this is complete. The level of communication between members of staff in resus varied widely and at times when resus was not busy there were often interactions between staff discussing social plans or occurrences in the department. In an ethnography of a US ED Wolf (2003), observed levels of staff camaraderie in the workplace as important to maintain the overall morale amongst staff in what was described as the "chaos" of the department. At other times interaction between these groups and the nurses in resus was largely functional, confined to asking questions about a particular patient or intervention to be performed.

I observed that resus was an area that had vast swings in activity levels across the span of the day. Mornings usually started with a 'quiet' period used by the nurses to check equipment and make sure levels of medical supplies are stocked in readiness for an anticipated rise in activity throughout the rest of the day. Although it is difficult to provide an overall explanation for this rise in activity as the day progresses overall it is a characteristic of all the UK Emergency Departments that I have worked in and supported by data on ED attendance patterns (Appendix 10). These data also reveal fluctuations in the arrival patterns of patients who have been involved in road traffic accidents corresponding to peaks in travel such as rush hour, although this was not directly observed during the study. Attendances typically peak over the lunchtime period and drop off again during the late evening and night. In the morning the resus room is not usually crowded and does not feel or look busy.

The resus room itself had a spacious feel. Each of the 10 individual patient 'bays' are set up with the necessary equipment, including a patient trolley and monitors, for most emergency situations. Medical equipment is highly visible and obvious in the space, and this is different to

the rest of the department, signifying a high degree of technical work in resus. In between each bay a solid screen and a curtain demarcate the space and to give a degree of privacy. The arrangement of the ten 'bays' is of two rows of five trolleys facing each other with a central desk area running down the middle of the room, shown in Figure 7.

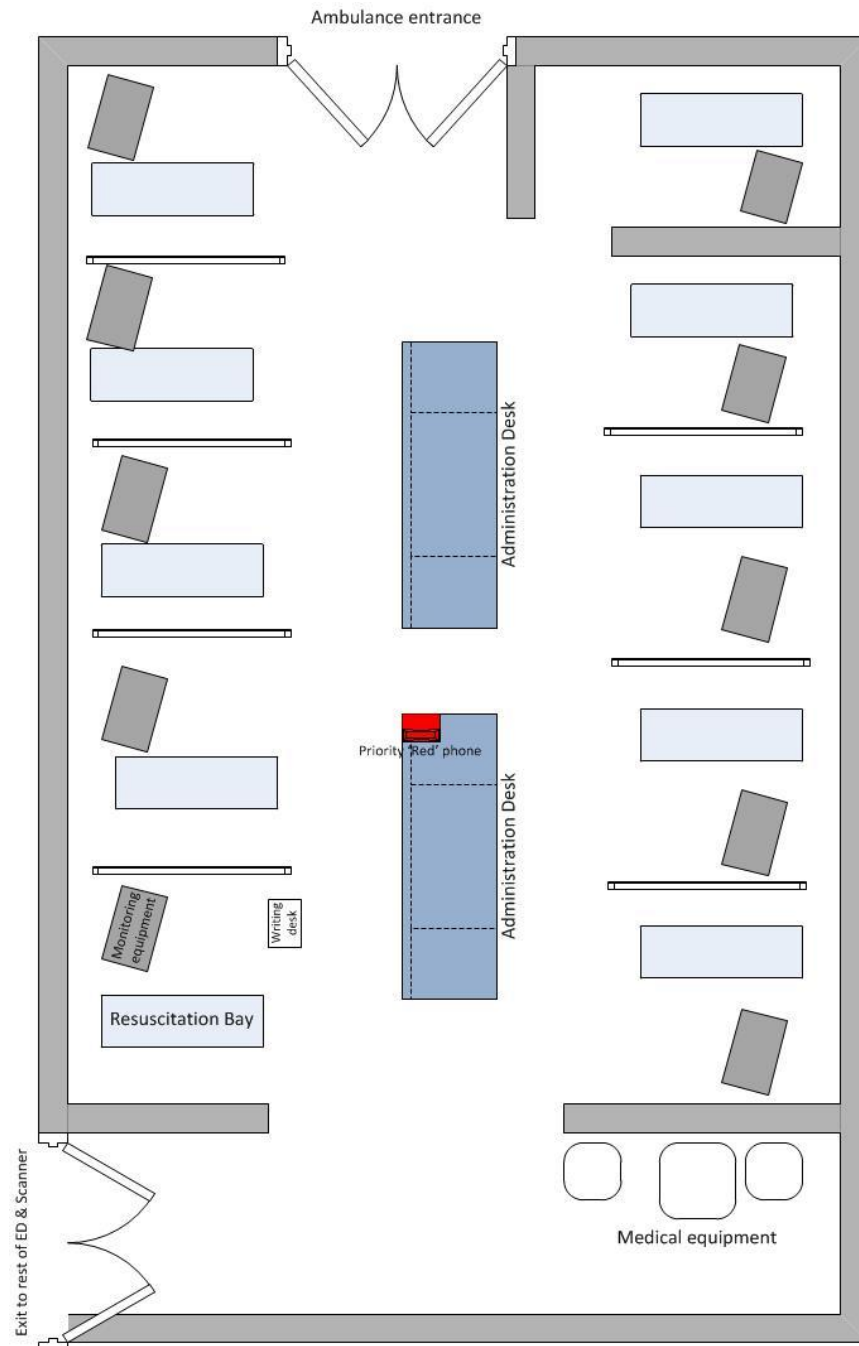


Figure 7: layout of the resus room.

This area also acts as a screen so patients who are sitting upright on the trolley are unable to see each other. The walls of the room around the non-clinical desk area have many notices and protocols for different purposes as well as lists of telephone numbers and instructions to staff on completing checks or processes.

When the study began it had recently been refurbished and decorated in a featureless and neutral way with painted white walls and a mid-blue central area that matched the curtains. Unlike the other clinical areas resus is on the outside wall of the department and therefore afforded some natural daylight, something remarked upon favourably by staff. It was clearly a space designated for clinical purposes as there were large volumes of equipment, trolleys and machines.

During the period of observation the resus room was never completely without patients and I often found the atmosphere calm and efficient. Staff were observed to be talking to patients and each other and working without urgency or fuss. Calm did not equate to lack of noise as there was a constant level of background sound of alarms from the various pieces of equipment. The alarms, which were meant to alert nurses or medical staff to a change in the condition of patients, often seem to be triggered without clinical cause and nurses would seemingly make no particular effort to turn them off. It was perhaps that this sound was a 'normal' part of the sound of resus and that in my many years of practice in other EDs I had become used to hearing this level of noise. However, as an observer for the first time in this particular setting I was struck by its repetitive nature.

The atmosphere in the room varied according to, amongst other things, the levels of activity and the time of day. A rise in activity is usually accompanied by more people and subsequently more noise from machines, people talking and telephones ringing. About once every couple of hours, and sometimes more frequently, the apparent calm in the resus room was punctuated by a call to the 'Red Phone' from the ambulance service. This phone, with its distinctive ring announced the impending arrival of an emergency or major trauma patient. The colour describes the phone located in the centre of the resus room, used only for this purpose, and was also a term used to describe a category of patient - the most critically ill. During my observations it was not uncommon to hear patients described by staff as "red phone patients"

prior to their arrival in the hospital, so as to distinguish them from patients who were thought to be in a less critical condition.

When the red phone rang there was always a discussion amongst the staff in resus as to “what” was coming in” and how they might organise their work. The staff member answering the phone was usually the most senior nurse or doctor in the area and they did this with great alacrity. The procedure required them to record the information given by the ambulance service on a template document, including the estimated time of arrival in minutes (‘ETA’). It always brought about an increase in level of activity around the phone, as typically several members of staff gathered to read the message as it was written down. These phone calls lasted about a minute. Following this an alert was made to the rest of the department over a tannoy system which announced the pending arrival of the patient, and was heard by all staff and members of the public. Nursing and medical staff prepared for their arrival by organising equipment that may be required.

5.2.3 The non-clinical space: the ‘coffee room’

The clinical areas, where patient care takes place, were geographically distinct from the non-clinical areas which were housed upstairs with security card swipe access provided to staff of the ED only. At the start of each shift nurses would congregate in the staff rest area, referred to as the ‘coffee room’, prior to going to the clinical area, referred to as ‘the shop floor’. The coffee room is modern and kept clean for the most part, separated into a seating area for 12 with a television attached to the wall and a small kitchen area with a kettle and microwave. There are two computers in the coffee room that are used occasionally by staff for browsing the internet or reading e-mails during rest periods. Notice boards or notices are stuck to the walls in different places around the room – a ‘social’ board displaying photographs of happy looking groups of staff at various social events, a research board where information about a clinical trial and the information and poster for this study is displayed. Other notices include information on study days or contact information for staff about education events. Whilst it is a ‘rest area’ it is used as an area to communicate with staff and enable them to keep in touch with work events.

The coffee room is used by all the ED staff including nurses, doctors and support staff such as porters and healthcare support workers who use it intermittently throughout the day and night

during 'breaks'. As it is housed within the upstairs space beyond the swipe access doors only staff from the ED are able to access the space. The staff 'breaks' from the clinical activity occurred at points during mid-morning, lunch and mid-afternoon. Whilst all members of staff are permitted to use the coffee room it was dominated by nurses as the largest occupational group in the ED so there would often be several nurses at a time in the room. As a social space it was quiet. Staff members entered and set about having food or a drink. The television was always turned on but at an unobtrusive volume and most staff sat staring at the screen or texting on their mobile phones, only occasionally talking to others in the room about working patterns or things coming up in the near future to do with work events. Despite its universal function, most of the conversations that I witnessed in the coffee room took place between staff in the same occupational grouping and rarely between people of different occupations. Whilst social greetings were sometimes uttered as people entered or left the room, conversations were never prolonged.

5.2.4 The non-clinical space: offices and meeting areas

Located also in the upstairs area of the department are the offices and meeting space. The meeting space is a single room containing about 12 chairs round a large central table and is used for internal ED meetings and in which I conducted one of the semi-structured interviews. The offices are assigned to the ED Consultants and senior nurses and are entered through a door controlled by swipe security access. I would be 'let in' to this area by administrative staff to meet with the gatekeeper. There is also a 'Sister's office' used by this level of nurses who were assigned non-clinical time to deal with staffing issues or prepare educational materials. I used this office to store my personal belongings and would often start my periods of observation in conversation with the various nurses who may be in the space.

5.3 Identification of ED staff

Staff working in the ED are identifiable as 'different' from ward-based and out-patient areas as they wear 'scrubs', a uniform worn only in the ED and in critical care and operating theatres of the hospital. Scrubs had recently been introduced into the department for both doctors and nurses. The nurses' explanation during conversation was that they are more comfortable and easier to change if they become soiled. This seems to imply that the work in the ED is viewed

as busier (or less comfortable) than the ward areas or that it is place that is more likely to encounter blood or bodily fluids. While scrubs are the dominant nursing uniform in the US (Spragley and Francis 2006) nurses in other areas of this hospital wear the more traditional UK nursing uniform of a tunic with pockets and an open collar, with seniority shown by different colours of epaulette on a blue tunic. The colour of the scrubs in the ED indicates the role and seniority of the staff member – senior grade doctors wear grey and other ED doctors wear blue. The nurses wear different shades of blue to the doctors. Senior nurses who take the ‘in-charge’ role wear navy scrubs, experienced nurses a mid-blue and junior nurses a light blue. Such demarcation of hierarchy by uniform has been noted by other researchers to be common in the NHS (Timmons and East 2011).

Rafaeli and Pratt (1993) have commented elsewhere on this “stratified homogeneity” in which different uniforms designate professions and then subdivide by status or seniority. The scrubs worn in the ED are in contrast to the scrubs worn in operating theatres where there is no differentiation between professional or seniority by uniform what Rafaeli and Pratt (1993) term “complete homogeneity”. One colour of scrubs that is highly visible within the ED is the vivid red worn only by the Trauma Consultant (the senior doctor ‘in-charge’ of the major trauma patients). When not in the ED this doctor is responsible for carrying out various other clinical and administrative duties relating to trauma patients who have passed through the ED and been admitted into the hospital. Described by one of its wearers as a colour that made “a bit of a statement”, this colour choice indicates the dual function of uniform as visibility and as reinforcement of hierarchy that has been noted in recent literature on professional identity in healthcare (Shaw and Timmons 2010; Timmons and East 2011).

The work of the ED is unique within the hospital and this is reflected not only in the differentiation of its staff by different uniforms to elsewhere in the hospital but in the organisation and type of work carried out. As described in section 5.2 the spatial layout of the department was clearly demarcated into both clinical and non-clinical spaces, with the clinical areas being further divided according to patient category. I observed that the use of these areas had largely implicit rules about the type of patient that should be treated, related to the seriousness of illness or injury and these rules were similar to the practice in other EDs that I have worked in. This leads to a department where the work is largely segregated based on the seriousness of

the patient's condition and during a typical day there was little interaction between nurses working in different areas of the department. The structure of the department around patient typology leads to nuances in the way that nurses work in each of the areas and differences in the level of involvement of other staff groups. The following sections detail the nature and organisation of both nursing and trauma work within the resus room, the area that receives the major trauma patients, and was the focus for the majority of the fieldwork.

5.4 Nursing work in the resus room

There was a constant presence of nurses in resus who when not involved in patient care carry out work not directly related to the treatment of the patient such as filling in paperwork or stocking equipment. These non-clinical roles are important in ensuring that resources and emergency equipment are available when needed. There was usually a 'co-ordinator' who took responsibility for the organisation and management of the non-clinical aspects of the work, and other ED nurses who each have responsibility for two resus bays side-by-side. Thus each of these nurses would usually have one or two individual patients to care for. This means there were often five or six nurses in resus and they were the most numerous staff group in the area. The nurses working in the resus room appeared to be self-sufficient in how they ran the room and how they organised their work. The 'nurse-in-charge', overseeing the whole of the ED, sometimes comes in to discuss managerial issues or patient admissions or transfers through this area. This was described by one nurse as different to the other areas of the department:

"I think the resus room here, I don't know if it's the same in other trauma centres, is now run as a completely separate entity. It's kind of like everything else, minors and majors are physically quite far apart but there is more of a join in terms of how they work. Resus is resus, behind the big doors and that's where you kind of, those beds are kind of sacrosanct, if you want to get someone there from majors then you've got to have a reason, if its busy then you need to be aware that most of the focus of the department seems to be what is going on in resus."

Interview 8; experienced nurse

The co-ordinating nurse acted as a 'gatekeeper' in controlling the flow of patients through resus and determined which patients were put into which bay. They appeared to be the focus of communication regarding what was happening in the resus room at any given time and 'in-charge' of the space. This was evident as members of staff not allocated to the area on entering resus would generally 'seek out' this nurse to speak to prior to carrying out whatever they were required to do. This gatekeeping role was observed in the way that nurses would orchestrate

the movement of patients in and out of the resus room, particularly when it became busy with newly arriving patients as the following fieldnote illustrates:

The nurse co-ordinating resus was on the phone organising to transfer a patient to a ward for admission. She then communicated this with the nurse who was looking after the patient. A doctor working in a different area of the department comes in and asks the co-ordinator if a patient can be brought in as they need some treatment that can only be given in resus. This struck me as it was phrased as a question to the co-ordinator even though it seemed clear to me that the patient was unwell and required resus. She responded "Bay 3" and the doctor left. She then spoke to the nurse looking after the bay where she was going to put the patient. In turn the 'bay' nurse then turned on the monitor and moved some equipment into the area in preparation for the patient.

Fieldnotes, Day 5

The co-ordinating nurse was often seen responding to multiple requests from others for information or the need for a space for a new patient, performing what Annadale et al (1999) refer to in their ethnographic study of interprofessional working in a UK ED as a "guardianship" role - overseeing the flow of patients through the department as an attempt to control the unpredictable nature of emergency work. Conversations with the nurses revealed that the need to maintain the flow of patients through resus was part of the routine of their work, and they saw the co-ordination role as essential in maintaining throughput so space would be quickly available for incoming patients. I observed that the nurses were almost entirely responsible for preparing of resus prior to patient arrival and did so without referring to the medical staff, in doing so they considered the rest of the work in the department and often facilitated patient movement out of resus in order to accommodate incoming trauma patients. This need to continually process demands from others, such as doctors, ambulance staff and to move patients through the ED has been portrayed as a key feature of emergency nursing work (Sbaih 1997c; Annandale et al 1999; Fry 2012).

As in other areas of the department the nature of the patient's condition appeared to guide the nursing work in the resus room and despite having two patients allocated per nurse, far less than the five or six in the majors area, the nurses appeared to be constantly busy when they had patients in their bays. They were observed to be monitoring the patient's condition, providing treatment and writing in the patient notes. The role of the nurse in resus appeared to reflect the aspects of clinical (treating patients), non-clinical (organising patient care) and interdepartmental (liaising with others) work identified in other studies of ED nursing work (Heslop 1998; Nugus and Forero 2011).

The final section of this chapter details the nature and organisation of major trauma work in the department and how this affected working relationships within the specialist trauma team.

5.5 The “daily diet of trauma” – the nature and organisation of trauma work

The ‘major trauma work’, the care in the ED of those patients with potentially life-threatening injuries, was talked about in the department with enthusiasm for the most part. The department had seen an increase in major trauma activity since designation as an MTC, and the extent to which major trauma was felt to be part of the everyday work was described by one senior nurse as the ED “getting its daily diet of trauma”. When discussing the trauma work in the interviews and conversations most of the nurses referred to the processes and protocols for care of trauma patients and in particular the role of the ‘trauma team’.

When a trauma call was activated for those patients with suspected serious injuries, a group of medical, nursing and support staff were alerted through a pager system of the impending arrival. Staff would leave whatever they were doing elsewhere in the ED or hospital to assemble in the resus room to wait for the trauma patient. Trauma team roles were pre-defined by a protocol which was displayed in the resus room and on a “Trauma notices” board in the non-clinical area of the department (Appendix 11). These roles were explained as being based on the approach to assessment of the trauma patient standardised across most developed countries through clinical practice guidelines into the “primary survey”, aimed at identifying and treating life-threatening injuries quickly.

“There is a pretty set way of getting things ready in trauma, the nurses will get their things ready and the doctors will do the primary survey so that will happen the same. There will be continuity there. After all that, you work out your procedures and secondary survey ... deciding if you are going to CT [scanning] or ITU [Intensive Therapy Unit].”

Interview 3; experienced nurse

This protocol often referred to by nurses as following “ATLS” (Advanced Trauma Life Support) after the most commonly taught trauma training approach (American College of Surgeons 2012).

The protocol indicated that each nursing member of the trauma team worked alongside a specified specialist doctor and I observed that these roles were also implemented in practice. These roles related to the components of the anatomical assessment of the patient made in the

“primary survey”. When I asked nurses to explain “*What happens in a trauma call?*” they universally referred to and described the roles within the trauma team protocol in varying levels of detail. Most of the nurses stated that there was a need for the trauma team approach in quickly identifying and treating any life-threatening injuries.

The team are led by a ‘Team Leader’, referred to as the “Trauma Consultant”, a senior doctor whose role it is to provide overall co-ordination of the team. This is one person at any given time in this specific role and there are only about 20 people in the MTC who undertake it. It was remarked upon by nurses as being beneficial in providing an expert opinion but also providing leadership to the team and expediting decisions regarding the trauma patient in “getting them out of resus quickly”. In a study of perceptions of trauma team roles, Sarcevic et al (2011) also noted the importance of effective leadership in co-ordinating trauma activities. The pace of the response for this type of patient felt much faster than for other groups of patients and there was always a focus on getting the major trauma patient assessed rapidly. This was commented on by some of the nurses who also made reference to the speed in which trauma patients were dealt with, one nurse reflecting during a conversation in resus that “if you want to get seen properly and quickly then get hit by a bus”. There are no other patient groups in the ED who get the same level of organisational response and this notion that care was somehow different for other groups of patients emerged as the theme of ‘the decent trauma’ patient discussed in Chapter 6.

The arrangement of a consultant leading the team is a unique requirement of being an MTC and part of the criteria for designation, and those nurses who had worked with trauma patients in the ED prior to the development of the MTC or in different settings placed value on the Trauma Consultant role.

“Having a trauma consultant is key as there was never that leadership in the other departments, someone to say “we’re going to do this, this and this” and it means the whole team knows what’s happening and I like that, especially at my level you want someone to take charge and if the patient is sick you want someone to say “we’re going to do this and I want you to do that”.

Interview 3; experienced nurse

“In terms of how the whole system works I think it’s been brilliant and in that we don’t struggle as much to refer patients to specialties, before it was a real hassle to refer patients to the surgeons or whoever. Now the trauma consultant is there the title makes a big difference and the junior doctors don’t argue, the patients can get out of resus quicker and ICU tend to take patients straight up.”

Interview 9; senior nurse

In addition to the trauma team assembling in resus, the notification by the ambulance services that a patient is on the way to the hospital also generated other activity. A resus bay was assigned and the nurses allocated to look after the trauma patient start to 'set up' and prepare any equipment that may be required. They would do this in the prescribed way assigned in protocol but would also anticipate the potential management of patients dependent on suspected injuries by preparing other specialist equipment as required. Once the patient arrived in resus the ambulance crew gave a verbal handover on their condition and they moved the patient from the ambulance transport trolley to a hospital trolley and the assessment and treatment began. There was a palpable rise in the level of activity from members of the team and, in line with the system of clearly assigned roles and tasks that nurses described in the interviews; I observed that they assume specific tasks often without any further discussion of who is doing what. Information about the patient was relayed to the Trauma Consultant from other members in the team.

The Trauma Consultant stands at the foot end of the trolley on which the patient is lying and 'directs' the team to ensure pertinent information is obtained to decide what may be wrong and what the course of action might be. The communication style from the Trauma Consultant changes to being both questioning, in asking for clarification regarding the patient assessment; and directive in instructing the team in what should happen next. There are variations in the level of Trauma Consultant involvement with some vocalising more direct instructions to the team than others.

5.5.1 Team working in trauma

The work of the trauma team is short-lived and the team exists as a unit only for the time it takes to stabilise the patient, usually 15 to 60 minutes, before disbanding to return to their other duties. Most of the doctors arrive specifically in the department for the trauma call and with the exception of the ED registrar (a middle ranking doctor) the nurses are the only members of the trauma team who work exclusively within the ED. The involvement of doctors from different specialties in the assessment of the trauma patient is particular to major trauma work, and most other patient types require input from only one specialty at a time. Prior to MTC status these teams had come to the department sporadically to deal with non-major trauma work, which

means that they often work in isolation within the clinical setting and interact with nurses only to give direction or communicate decisions. As the nurses explained during conversation, doctors' other responsibilities could range from attending to patients on the wards in the hospital, theatre or seeing less urgent patients in the ED. This means the composition of the trauma team changes frequently as all members rotate through varying shift patterns over days and weeks and is largely made up of transient members from outside the ED.

During preparation for patient arrival, I observed that individual team members placed themselves around the resus bay trolley in the same positions each time. This appeared to be so they could carry out their distinct role – the anaesthetist at the head end with the “airway nurse”, the surgical doctor to one side with the “breathing nurse” and “circulation nurse”. This placement of the team and the equipment was ordered and seemed to show a routine that was practiced regularly. The positioning and ordering of work artefacts has been observed in other settings as necessitating proficient practice (Whalen 2002; Goodwin 2007). There are up to four nursing roles identified within the pre-determined trauma team although I never observed more than three nurses in attendance. This was explained by some nurses during both conversation and interview that unless the patient was severely injured and needed lots of treatment the additional nurses were not required. This means the ‘breathing’ and ‘circulation’ roles were usually carried out by the same person. These roles were undertaken by the nurses working in resus, the one allocated the bay where the patient is placed plus another. This second nurse was often observed to leave another patient in resus to assist within the trauma call. There was also the additional role of ‘Nurse Team Leader’, which was usually the resus co-ordinating nurse who would stand at the end of the trolley in a ‘hands-off’ role and who documents information relayed from the team during patient assessment. They interject occasional instructions to the team, usually a reminder of something that has been forgotten such as preparing drugs prior to patient arrival.

The activity surrounding the preparation for the arrival of the trauma patient gave the appearance of the trauma team being well rehearsed, even in situations where they had little prior exposure of working together. Short bursts of communication were sometimes heard in referring to specific equipment requirements or the anticipated course of management for the patient. The type of conversation would vary dependent on nature of the trauma expected and

would be more focused on clinical preparation if a patient deemed to be 'severely' injured was expected, as this fieldnote shows:

Trauma call expected in the department that was referred to as 'nasty', clinical history of severe injuries. Trauma team arrived over what seemed to be a couple of minutes and asked the team leader what was expected. One of the doctors (the surgeon) commented that it "didn't sound good". ... Communication within the trauma team was sporadic and functional. Nursing staff would leave the bay and return with equipment without being given instruction to do so (explained as being for particular trauma related procedures). The 'set-up' for the trauma patient was completed before the patient arrived (they had an arrival time of 15 minutes from the trauma team being called) and the team stood in their positions waiting. At this point there was little noise or interaction amongst the team and it felt as if they were preparing themselves. In the other trauma I observed there was a level of continued chatter whilst waiting for the patient.

Fieldnote, day 7

The trauma team appeared to the outside observer as highly capable and working collegially, each member carrying out multiple and concurrent tasks in what were often observed to be fast-paced situations with lots of activity.

"There are so many people around in a trauma that you sometimes feel like you're tripping over each other but relationships are quite good in the team and we communicate quite well. Because it can be so busy and quick you just have to listen to each other and verbalise otherwise 5 people end up grabbing a cannula."

Interview 4; junior nurse

In a conceptual framework of interprofessional team working in healthcare, Reeves et al (2010) suggest that clear team roles and function are essential within an high performing team. From my observations I deduced that each member of the team fulfils a distinct role and that each of the team roles is complementary (the "breathing doctor" and the "breathing nurse" for instance, required both roles in order that the patient assessment and treatment was complete), but this was not reflected in all the nurses' accounts in interview.

Some nurses described themselves as working in isolation: 'doing your own thing', for example:

"Obviously you have your trauma consultant and team around you doing your assessment I suppose, often the doctors are doing their thing and as nurses you're doing your own thing. You've assigned your roles and you know what you're doing but mostly they are doing their things and you'll be doing yours."

Interview 3; experienced nurse

On one occasion I observed that the resus room was particularly busy and there was not the expected number of nurses within the team. When the patient arrived the monitoring equipment was not turned on and ready. This did not appear to have been picked up by anyone else in the team who had either not realised it had not been done or was waiting for the nurse to attend. In contrast, I witnessed occasions that, whilst there was very little overlap of tasks, there was discussion between the doctor and nurse about what was needed and whether equipment was ready. These interactions were cordial and not dominated by either profession in terms of someone assuming a hierarchical role and this appeared to be an example of good team working.

Once the patient had arrived the team carried out a rapid assessment and a decision about the need for further investigations was usually made within 15 minutes. There is a wide variability in what subsequently happens to the patient determined by the severity and type of injuries but several nurses commented on the next steps for the patient, for example:

“There is a pretty set way of getting things ready in trauma, the nurses will get there things ready and the doctors will do the primary survey so that will happen the same. There will be continuity there, after all that you work out your procedures and secondary survey, the trauma consultants are all really good and they’ll be deciding if you are going to CT or ITU and you’ll be thinking right I need to get ready to go to CT or wherever and you might have everything there already.”

Interview 3, experienced nurse

If the patient is not severely injured then the team quickly disband leaving the nurse allocated to the particular bay in resus to carry out any care required.

5.6 Chapter summary

This chapter provided an account of the physical and spatial environment in which the nurses work and examined the organisation of the trauma work in the ED. This revealed various aspects of how the work of the department is organised, defined by a series of implicit maxims relating to the practices that occur within each of the separate areas. The work in the resuscitation room, whilst itself distinct from that of the rest of the department, is further broken down into trauma and non-trauma work, with nurses in this area seen as utilising a range of clinical, organisational and communication skills. Whilst the major trauma work was described and observed to be a unique component in the ED, having its own discrete set of processes and

procedures, from the departmental data it was clear it ultimately constituted a fraction of the overall work of the department.

The next chapter builds on the nurses' accounts of this work by presenting the analytic findings relating to their perceptions and experiences of working in a MTC.

Chapter 6 Findings: The effects of becoming a Major Trauma Centre

6.1 Introduction

This chapter builds on the descriptive findings presented in the previous chapter of the major trauma work by focusing on the nurses' perceptions of the effects and consequences of becoming an MTC expressed through analysis of the interview transcripts and fieldnotes.

The chapter is framed within the four interrelated analytic themes identified. The first gives an account of how the accreditation to do major trauma work is perceived to have led to an increase in the *status and profile* of the ED. The second explores *the draw of trauma* in the ED and how it is viewed as an exciting component of the work by nurses. The third theme looks at the idea of *the 'decent' trauma patient*, examining the hierarchy of interest within trauma work, how it is expressed in the everyday language of the ED and how it influences the care given to non-trauma patients. The final section explores ED nurses' accounts of their *task-orientated roles* in looking after trauma patients. The chapter concludes with a summary of the interconnections in the themes.

6.2 'Major trauma' designation – the institutional gains

The first section of this chapter presents the findings of the thematic analysis of data which identified the effects of the reputational and status gains to the institution and department as a result of designation as an MTC.

The designation to provide care to patients suffering major trauma was a formal process that the hospital had undertaken prior to officially becoming a MTC in April 2010. This process included a large number of components relating to provision of key specialties and staffing for this kind of service. In addition the ED had undergone a series of changes such as the redevelopment of the resus room highlighted in chapter 5.

A sub-group of the nurses that I interviewed expressed perceptions of the changes that had occurred with the advent of the MTC that related to matters beyond their own role and concerned the implications that they saw this had for the hospital. These were predominantly nurses in more senior positions who had worked in the ED prior to designation and mentioned

benefits from the investment that had been made (such as interviewees 1, 5, 8 and 9). There was felt to have been a lack of infrastructure to support the major trauma work previously, when it was considered part of the 'normal' ED work and was not supported by the required resource:

"When you used to do nights it would be a nightmare because all that was in resus was you and 2 other nurses and one junior doctor and it was such a struggle to get patients referred and lack of staff, so if you had to get a patient in CT they had to wait because you didn't have the resources to take them and log roll them onto the table. Some patients would wait for hours for a scan."

Interview 9, senior nurse

Now the ED had expanded physically and was well resourced, with new equipment such as CT scanners and few shortages of supplies:

"The resus expansion and the number of nurses increasing has been great. Space wise in resus with 5 bays it was horrendous, you needed the space and you would nurse more than 5 patients in resus."

Interview 3; experienced nurse

"It means from a service point of view we have everything you need here, I've never come across a day where I've thought we need this but we haven't got it. You can get pretty much anything..."

Interview 5; senior nurse

Many of the nurses I spoke to who worked in the ED prior to conferment of MTC status also mentioned that additional nurses that had been employed as a direct result.

They also highlighted the increase in cases:

"We see a lot of trauma, a lot of HEMS and we get a lot of helicopter emergencies that they didn't have before. I think here since the trauma status they have a lot more trauma and we've doubled our capacity to 10 beds now and sort of allow for that."

Interview 2; experienced nurse

There was also a sense that with this skills and sense of expertise within the ED had grown:

"We've gone through a massive change in how we work with each other and the other departments and how confident we are in dealing with traumatically injured patients, we've now got a fabulous patient care pathways and that knocks on to the rest of the department and the knowledge and skills that then nurses have"

Interview 8; experienced nurse

Junior nurses did not have the same sense of history but some, like interviewee 6, came to be aware of the advantages when she attended a course and got talking with staff from less privileged hospitals.

“I do like working in a hospital with everything, not like in other places. At the moment I’m on a course with some people from [a different hospital] and they don’t have loads of things and for some things they have to put the patient in the back of an ambulance and transfer them to somewhere else, I hadn’t realised how lucky we are that we have nearly everything here.”

Interview 6; junior nurse

Others, like interviewee 10, were proud to attend a conference and discover that the practice in their department was considered leading edge and innovative. As a result of the formation of the MTC the hospital had developed services to support trauma and the nurses viewed felt that this was of benefit in working effectively.

The investment made by the hospital, brought about a feeling that there was a responsibility that came with becoming an MTC. For some this meant that there was requirement to continue to develop the specialty of care for major trauma patients, and this was exemplified through the energetic development of new protocols. Major trauma care was seen as a dynamic specialist area and the ED nurses frequently talked to me with pride about working in the MTC. From their perspective, the ED had an improved reputation in the hospital as a result of its increased work with major trauma, reflecting the value placed on complicated and challenging cases:

“I think the profile in the Trust has increased.... I think people do appreciate that we have really sick patients and that trauma affects the hospital as a whole because the patients go from A&E to ITU or the wards and the liver unit will get liver trauma and stabbings so people appreciate the impact of trauma on the hospital even if they’re not involved.”

Interview 4; junior nurse

The nurse interviewees also felt that this increased and improved profile extended beyond the hospital into the wider community, and that it had brought about a positive view of the whole hospital. In part they felt that this was due to the coverage in the local press of major trauma cases brought to the hospital (part of larger media coverage of ED work that had previously included a ‘fly on the wall’ television series).

The nurses felt they now had a reputation to live up to:

“For the hospital as a whole I think that the public do realise a bit about what is going on out there and puts the hospital on a bit a pedestal and there is publicity around being an MTC that means you have to do things properly, so the profile of the hospital is raised.”

Interview 3; experienced nurse

Most of the nurses did not make specific reference to the perceived effects on the hospital resulting from the reconfiguration and their focus was on the clinical work surrounding the care of the major trauma patient. The development of the trauma team, explained in the previous chapter, was part of the institutional response in its designation as an MTC but viewed by the nurses as having a direct impact on the trauma work in the ED.

6.2.1 “The team here is really good” – working closely together

To the outsider the transient nature of the trauma team might not seem conducive to the development of close working relationships, but the nurses I interviewed felt differently. Some of them were clear that working together as part of the trauma team had a positive effect on the working relationships of team members, they attributed this in part due to the sometimes complex clinical challenges they faced. The development of these working relationships were attributed by some nurses as a direct consequence of becoming an MTC and resulted in recognition that working together in the context of a trauma team had been beneficial in aiding supportive working across the different specialties. There was a clear perception held by many of the nurses that efficiency was evident when working with people with which they had developed a working relationship, illustrated by this interview excerpt:

“I definitely think because of the trauma centre that you build up a relationship with other specialities, it is good within the hospital to know other people and it does build a better working relationship with teams. Generally everyone does work well together and when you are in situations when it is stressful then it helps that you have worked with people in the less busy trauma calls, you can have the anaesthetist down every day for trauma and then when they are here for a sick medical patient it helps that you know them and they know you, when you’re working together every day...You get to know how different people work, and there would be some anaesthetists who would say “get me the difficult intubation trolley, we’re doing plan A, this is plan B”, you get to know, even if they come to see a non-trauma patient.”

Interview 10; junior nurse

The trauma team was frequently brought together with varying membership due to working patterns and despite the short-lived nature of the trauma team, the regularity in which they

came together may have been a factor in the developing such a strong feeling of team working, for example:

“There is a sense of working together that seems only to happen in trauma. It is quick here and the team working helps that and it's the process and the fact that we work together a lot and know each other that means we can pre-empt each other and that process you wouldn't have if it was just about the process not the people.”

Interview 5; senior nurse

The nurses' comments suggest that what Reeves et al (2010) term 'relational factors' – mutual trust and respect of each other's ability to carry out their respective roles, was facilitated within the trauma team set up. In their conversations some of nurses commented that they had seen a favourable shift in the attitude of doctors from outside the ED towards them which they ascribed to the familiarity that came with working together regularly in major trauma. This familiarity could be seen in the social interaction that occurred amongst some members of the team prior to the patient arriving. I observed that during the short period of 'waiting' for the patient once the red phone notification is received, there was often gentle banter and pleasantries amongst the trauma team members:

Observation of the preparation for a trauma patient arrival. As this was my 10th episode of observation the nursing staff and the trauma consultant were known to me. The trauma consultant was "chatty" and engaged me in conversation with how my study was progressing. The atmosphere felt 'light' indicated by the tone and jovial nature of the trauma consultant but also by the level of social interaction amongst the team who were talking about things not related to the patient about to arrive.

Fieldnote, day 10

The nurses also referred to a relaxed atmosphere, as in the comments of a junior nurse:

“I like the team work, because everyone comes down for the trauma call you can get a lot of chances to work with people ... I think that because you work with people in the team that the atmosphere is quite fun sometimes, you can be relaxed when you work with people all the time, not with the patient but it is good for working relationships and then you can work better with them when they see other patients.”

Interview 11; junior nurse

Other ethnographies such as that of Wolfe et al (2003) in a US emergency room have noted similar.

This first analytic theme identified the nurses' views of the reputational gains achieved by the designation as an MTC and the subsequent benefits this brought about. The development of

positive working relationships with others in the hospital that had not existed prior to MTC designation was also noted. The profile of major trauma in the department also permeates subsequent themes and is reflected in the excitement and motivation shown by the nurses in this study toward working with major trauma patients, referring to it as “the best bit” of their work.

6.3 “It’s the best bit” – the draw of trauma

During interview nurses were asked to comment on why they had chosen to work within the ED, and almost universally they had been attracted by what they believed to be the excitement the work would involve. Some made reference to the appeal that major trauma held for them as emergency nurses, commenting that this attraction had started even prior to working in the MTC with the anticipation that major trauma would form a significant part of emergency nursing work and be an exciting component of the role.

“I really like the trauma; it’s the best bit I think. Just because it’s exciting and there’s a lot going on and you see it all the time when you’re hearing anything about working in A&E.”

Interview 11; junior nurse

This related to both the fast-paced working environment and the types of patient. This view was held by some nurses even prior to entering the MTC and was driven by the perception of major trauma being synonymous with working in an ED. Byrne and Heyman’s ED study (1997) found a high proportion of nurses chose to work in the setting due to the excitement and drama they felt it had. This drama was not reflected in the actuality of the nurses’ involvement in the major trauma work which they explained as largely lacking in excitement due to its routine and repetitive nature. The views of nurses on their own role in trauma developed into a theme “*removing the clothes*”, explained further in section 6.5. As previously shown the major trauma work accounts for a very small amount of the overall work in the ED but the literature and narratives on emergency nursing give it disproportionate interest, reflecting the views of the nurses in this study.

Several nurses talked about their experiences working in the ED as pre-registration students and recalled that trauma had been upmost in their minds when choosing emergency nursing,

largely due to them feeling that emergency nursing was portrayed as being mostly about trauma.

“If you want to be an A&E nurse then in a sense that trauma is the essence of A&E. When you think about A&E nursing that’s what you think about and that’s the view of the outside world. When you’re young and as a student I remember thinking that’s what A&E was about and sitting there and seeing the flashing blue lights and the trauma”

Interview 8; experienced nurse

A further explanation from one informant was that their perception of trauma being the most significant component of working in the ED had been informed by media depictions. In conversation a junior nurse who commented that she “loved” trauma remarked that when she was first involved in trauma she had felt like she was “on TV as that’s all you see on the telly” - it was quick and exciting and “there was blood”. The media portrayal of ED work as focused on the preservation of life was found in the ethnographic work of Hightower (2010) who determined, from watching episodes of the US TV programme “ER”, that the popular cultural context was of emergencies and highly specialised patterns of work. The anticipation of high levels of major trauma cases for these nurses began prior to commencement of their role in the ED, what Feldman (1976) termed “anticipatory socialisation” in which anticipation commences prior to exposure and the ideas about the role to be undertaken are conceived from other sources.

For some of the nurses I interviewed this desire to work with trauma had led to a conscious and deliberate decision to seek employment within the MTC. This was reflected in the responses from nurses across all levels of experience.

“I wanted to get experience of trauma care and I hadn’t dealt with it much so I felt I had to come and experience that.”

Interview 3; junior nurse

The draw of trauma was recognised by senior nurses within the MTC but several touched on the need for nurses to recognise that trauma was not “the be all and end all”. It was felt at times that getting some nurses to acknowledge the value of other types of patients was challenging due to the heightened interest in the major trauma work. During a conversation with a senior nurse there was a discussion about the number of nurses who were attracted to trauma patients

because they were considered to be exciting but that this was not the reality of working in the ED where they were expected to work in all areas of the department. This view was supported by another senior nurse:

"I think a lot of nurses apply to do A&E because of the trauma, the reason for coming [here] is often that we're a trauma centre and they want the experience...I think that they come in thinking A&E is all about the trauma and they want to work in a major trauma centre because of that"

Interview 9; senior nurse

The non-trauma work of the ED is common across both MTCs and TUs but a number of nurses who had worked in departments situated within TUs had selected to move to the MTC specifically for the trauma work. This type of work had largely diminished in their previous departments due to reconfiguration. This led to a sense that working in a TU was associated with not working in a 'proper' ED.

"I wanted the experience of working in a fully functional hospital with all the specialities like this one because it is a major trauma centre. I often heard the expression "we're not a proper A&E" when I worked in my previous hospital and I did feel like this was the time in my life when I wanted to go and work in a proper A&E. Just experience in a year and a half to learn and see things that I may not have seen in my other jobs."

Interview 3; experienced nurse

This reference to the number of specialty medical teams, such as surgeons and anaesthetists, appeared to contribute to the feeling that working in the MTC was in some way a different experience from working in other departments.

There was some concern that this might lead to the MTC "pulling" nurses away from EDs by offering them experience of trauma not available elsewhere. The deliberate decision to work specifically within an MTC was often remarked on. As fieldwork progressed it became a specific topic for exploration and whilst consideration needs to be given to the possibility that nurses taking part in the study had a high level of interest in trauma, it was clearly a factor in choosing to work in an MTC for this specific portion of the workforce. This is exemplified in the quote below.

"If I'm honest then I think some of the attraction was about moving to work here as a Major Trauma Centre. I've been involved in trauma for a long time but because [my previous Trust] is not an MTC we rarely saw any trauma so I moved partly because I was missing the trauma and wanted to do more."

Interview 15; senior nurse

Whilst all the nurses who had worked in other settings described some experience of looking after trauma patients within their previous hospitals, they often did not feel the number of opportunities to care for severely injured patients was adequate for them. These most seriously injured patients, who require the specialist skills of the MTC, were often referred to as 'proper' as in the quotes below. It was these 'proper' trauma patients that nurses felt exemplified the work of the MTC and led to an increased level of interest, the implications of which are discussed in a subsequent theme in section 6.4. Within the context of choosing where to work the lack of exposure to this type of patient had led several nurses to move to the MTC specifically for the opportunity to experience major trauma:

"What encouraged me to come to [this hospital] was the trauma, the proper trauma, you have very proper trauma. What you get at other places is the trauma but it's not the proper massive trauma that you get here, the massive stabbings we get here. I thought about moving here to learn some more skills in trauma care"

Interview 7; junior nurse

"I came here 3 years ago ... purely because [my previous hospital] doesn't do trauma...it was a good way of coming into an environment and doing proper trauma within a Major Trauma Centre."

Interview 8; experienced nurse

Whilst the work of Trauma Units, those hospitals who receive the less severely injured patients, was not explored in this study a junior nurse remarked that having worked in a TU she was drawn to the MTC specifically as she felt that an ED dealing with major trauma was "better" than the TU:

"I made a decision to work in a place that sees major trauma, a bit because I liked it but also because I wanted the experience of working in a big department like this. The major trauma was a factor. I think that if you're going to be an A&E nurse then you need to know about major trauma even if you work in a place that doesn't see much."

Interview 12; junior nurse

Those nurses who had experience of working within a TU shared this commonality in referring to the differences between TUs and the MTC. This was part of the effect of the 'institutional gain' of the enhanced reputation of the MTC brought about by its designation. These nurses suggested that the reputation of the MTC was more positive than the other hospitals they had worked in and led them to seeking employment within the MTC, exemplified by the following fieldnote:

Conversation in resus with B6 nurse who had previously worked in non-MTC and was drawn to the MTC specifically as she felt that overall that ED dealing with major trauma and specialist conditions were "better" than DGH [District General Hospital] as they were more receptive to change and developing innovative practices and got "better" nurses and doctors working in them. She had felt constrained in a DGH and unable to deliver appropriate care as there was no emphasis on speed and this was important in major trauma.

Fieldnote, day 6

The changes to the type and amount of trauma (increasing in the MTC and decreasing in the TUs) reflected the expected changes in the reconfigured trauma system. The consequences of these changes were apparent in the nurses decisions regarding their preference to work in the MTC but exposure to trauma was also a factor for some in considering their next employment opportunity. For some of the nurses there was a sense that moving away from the MTC would be difficult if it meant that there would be only limited exposure to trauma in other hospitals.

"I think it would be very hard to move out of a major trauma centre having experienced this here, it's a good hospital and no matter what or where else I go I would always think that it's been good to work here. They do things here that they wouldn't do in other places; everything is much slower everywhere else."

Interview 10; junior nurse

One of the experienced nurses built on this reasoning for working specifically in an MTC by qualifying she felt the MTC was able to recruit "superior" doctors and nurses due to the trauma. She used the efficiency and speed of treatment and the overall number of doctors and nurses as examples of what she meant by the term "better". Another nurse in conversation made reference to her perception that the nurses and doctors working in the MTC were "more clued up" than in other places she had worked. This was clarified as "clinically excellent". The draw of major trauma work in the ED was made apparent by the nurses participating in this study who referred to their own preference for this type of work. This preference was seen as occurring also in some of the other nurses in the department who were perceived to have a heightened interest in the major trauma work.

6.3.1 Competition among the nurses – the "traumaholic" nurses

One of the consequences of the interest in major trauma patients amongst nurses in the ED was the "over-enthusiasm" of some toward these patients.

"We definitely have a few people who see that working with the trauma is the most important or best bit of their day. The group who are attracted to it and no matter where they are supposed to be in the department but seem to end up in resus anyway."

Interview 15; senior nurse

These were referred to deprecatingly by their colleagues as "traumatastic", "traumaholics" or "trauma bunnies". Their behaviour was a source of frustration particularly for some of the junior nurses who felt that they were 'pushed out' by these nurses when a severely injured patient arrived.

"I think that the decent stuff you think of when you think of trauma isn't really what you end up doing. For those ones everyone comes in and you end up not being needed even if it's your patient, like the senior nurses will come in and you end up having to look after the other patients whilst they take over. There are some nurses who think they are really good with the trauma and just come in, there are definitely some traumatastic people who love it."

Interview 13; experienced nurse

The nurses interviewed showed a clear interest in looking after trauma patients and despite many viewing the trauma work as a positive aspect of working in the ED, none referred to themselves in these terms. The behaviour of the "traumaholic" nurses described was not seen as positive and they were often seen as favouring trauma over the work they were allocated:

"I think it depends on which type of nurse you are and I have a friend of mine from here whose thing is trauma and they want to specialise in trauma and go off and do trauma stuff all the time, that sort of thing. You're still left with the patient, you do get traumaholics in resus who go from one trauma to another and not really want to look after the patients and they move on when another comes in."

Interview 8; experienced nurse

This attraction of nurses to the major trauma work appeared to have been recognised in the ED and it seemed that both formal strategies had been developed to minimise this movement of nurses toward the trauma patients. Formally the allocation of nurses to work in specific bays in the resus room had been adopted since the development of the MTC:

"It's only when you talk about it that trauma is exciting and people get involved when they don't need to and we've tried to allocate bays in resus now and hopefully that helps to keep people away. That nurse looking after the bay where the trauma patient is needs to be there but other nurses sometimes don't, whereas people do jump on the trauma"

Interview 3; experienced nurse

However in practice I observed little obvious attempt to regulate other nurses who turned up to trauma calls when not required.

The nurses often displayed enthusiasm when discussing the events that surround the working practices in the care of major trauma patients with me and as noted earlier many of the nurses seemed to find their 'trauma work' to be a stimulating aspect of their work in the ED. However the same level of excitement was not associated with every patient that passed through resus. The following section considers the way that trauma cases become conceptualised in the ED, and the implications for nurse's work.

6.4 The “decent” trauma patient

The analysis revealed that distinctions were made in how the major trauma work was categorised according to severity of injury and that this reflected the level of interest that this engendered in the nurses.

The distinction often began prior to a patient's arrival, as staff made comments that categorised cases as 'interesting' or otherwise based on the information from the red phone notification. Both the nurses and doctors engaged in this. I observed that they gathered round the red phone when it was answered to see what was being documented as coming in, and even before the phone call finished those listening would appear to make a judgement on 'how interesting' they feel a case might be. It was not uncommon to hear staff members comment “it's nothing” or “another chest pain” in a tone of disappointment. So while all trauma patients in the ED generate the same organisational response in the activation of the trauma team there seemed to be a distinct difference in the atmosphere of the resus room depending on what was expected. Several nurses used the phrase “decent trauma” during interview and when I asked for clarification it became clear that 'decent' was being used to describe those patients with severe or life-threatening injuries. A junior nurse who had used the term explained somewhat apologetically:

“Decent is a terrible thing to say isn't it? I suppose it means the stuff that's really proper trauma, 'proper' sounds bad as well...I think that I would say the proper trauma is the stuff that needs a lot doing, like a Code Red or intubating or things like that.”

Interview 12; junior nurse

Other nurses referred to the same patient group as 'proper' or 'big'.

Despite designation as an MTC and the previously expressed views that as a nurse working there you would “see something [trauma] everyday” the ‘decent’ trauma patient was not considered to be a common occurrence and reflected a small proportion of all the trauma activity in the department. Nurses anticipated high levels of these severely injured patients and cited this as a draw to working in the MTC, as described in section 6.3, but these types of patients were an unusual occurrence in the ED with the majority of trauma patients not suffering life-threatening injuries. It was these patients also who were seen as attracting the interest of the ‘traumaholic’ nurses in a way that others did not. These cases therefore became part of the folklore of the ED. During interviews and conversations with me several members of nurses had talked about a young trauma patient recently brought into resus with a severe head injury and “brain leaking out” and gave this as an example of a ‘decent’ trauma. With further probing I discovered that none of these nurses who had talked about this patient were actually present at this trauma call itself or had first-hand experience of the patient. They had heard about the case from their colleagues and reproduced the story as though it representing what working in a MTC was (or should be) about, similar to the accounts of “atrocious stories” given by Dingwall (1977) and Allen (2001) whereby collective dramatic events are narrated as part of forming a common occupational identity. Similarly to the findings that related to the profile of the MTC discussed in section 6.2, it was the ‘decent’ but ultimately rare trauma patients that appeared to raise the status of the department in the eyes of the nurses, the media and the wider community.

The activity surrounding the decent trauma patient was often associated with an increase in pace that reflected the response of staff towards a patient needing to have rapid, potentially life-saving treatment. As previously noted there is variation in the activity and noise levels in resus dependent on the potential or actual severity of the patients’ injuries, and there is often a palpable sense of anticipation surrounding the impending arrival of a patient who is considered to have severe injuries. This was evident during observation and reflected in the interviews:

“They might have really bad injuries and a pelvic fracture or this and that, they might bleed to death. The anticipation [is] that there is going to be loads to do and you might see something interesting”

Interview 6; junior nurse

Many of the nurses reported feelings of excitement regarding the trauma work in the department and used terms such as “buzz” and “adrenaline” when talking about the anticipation in the run-up to receiving a trauma patient. These terms were consistent with those used by the nurses in discussing the draw they had toward major trauma patients and their reasons for selecting to work in the MTC. These feelings of excitement seemed to permeate the department and to affect others in the department who had not been allocated to work in the trauma call:

“You can definitely sense a buzz when the phone goes off and depending on what comes the level of excitement can build, the problem with that is you end up attracting a lot of people who seemingly just come to look because they think it’s interesting”

Interview 15, senior nurse

At times the excitement appears to continue after the event has ended and for some time afterwards, exemplified by the following:

“I think there is a buzz around the place and particularly when you’re getting something exciting in, people do talk about it a lot in the coffee room and stuff. There was a thoracotomy not that long ago and everyone was talking about it, even if they weren’t involved. I think some people were jealous that they missed it”

Interview 12; junior nurse

This appeared to be partly as a consequence of the speaker system alerting the rest of the department to the arrival of a trauma patient but also through less formal communication routes, either doctors or nurses telling their colleagues. During a period of observation, for example, a trauma patient was expected with a history of severe injuries. A number of machines were being set up and blood being prepared to be given to the patient on arrival. The level of interaction amongst the trauma team was greater than had been previously witnessed and the Team Leader was directive and vocal in giving instructions about what needed to be done. The number of doctors and nurses present far exceeded the number needed to fulfil pre-determined roles and there was a large amount of activity - evidence of the draw toward the most severely injured patients described in section 6.2. This increased interest has been similarly noted by Wolf et al (2003) in an ethnography of emergency department work in the US. Having observed 40 trauma calls during fieldwork they identified discernible changes to the level of interaction between those on the trauma team dependent on the nature of what was expected. The increased interest is particularly evident when there was a perception that a patient with serious or life-threatening injuries may be coming in.

In conversation during fieldwork two junior nurses expressed an interest in trauma and offered me some descriptions of trauma cases that they found to be 'exciting', these related to loss of limbs, open wounds or stab victims that were bleeding – a high emphasis on patients with visible signs of blood.

"The exciting stuff is the really injured patients where you have to get stuff quickly, I suppose it's ones who are bleeding".

Interview 6; junior nurse

Both nurses expressed the view that they "didn't get many of those".

Not only did some nurses make reference to visible blood being indicative of a decent trauma patient, they further categorised a sub-group as the "Code Red patient". Code Red is a procedure whereby large volumes of blood are given rapidly to a patient who has lost a lot of blood and is likely to die without immediate intervention. These events surrounding the Code Red patients were observed on two occasions during my fieldwork and the nurses stated they were a unique procedure for major trauma patients and were seen as being something out of the ordinary for nurses working in resus.

"I think just that you get a lot of patients who might have been involved in something, like being hit by a car, where they could have had injuries but when they get here you realise or assess them and they don't. There are more patients like that than the ones people think of as proper trauma, like needing a Code Red or having a bad chest injury or a leg chopped off. I've hardly been involved with any [proper trauma]."

Interview 13; junior nurse

Nurses felt that in most cases decent trauma gave them the opportunity to assist with complex surgical procedures or use specialist trauma equipment. In an influential analysis of doctors' categorisation of patients Jeffrey (1979) carried out 7 months of participant observations in 3 EDs in the UK, and determined that patients were broadly evaluated into two categories - those seen as 'good or interesting' or those seen as 'bad and rubbish'. The medical staff described good patients in terms of their medical conditions, particularly those with head injuries or other trauma. The decent trauma patient was seen as an exciting but ultimately rare occurrence in the ED and this resulted in the majority of the trauma work as being categorised by the nurses as 'not proper' trauma.

6.4.1 The 'low level' trauma

Having suggested that the "proper" trauma patient was not that common, nurses were asked to describe the more typical trauma patients they had looked after. They would refer to patients who may have fallen over or been in a low speed road collision and didn't have "much wrong with them". These were patients who had injuries such as a single limb fracture or a minor head injury. This type of trauma work was described as 'low level' in not requiring the high levels of intervention required by the more severely injured patients.

The nurses would often describe situations where patients were anticipated to be 'decent' based on the pre-arrival information but the excitement soon dispersed once a patient was assessed and became categorised as low level trauma, and therefore no longer interesting. This was most often explained as a sense of disappointment or an anti-climactic feeling:

"You know like sometimes you get a HEMS and they might have really bad injuries and a pelvic fracture or this and that, they might bleed to death. We need to make sure we put out the Code Red. The anticipation that there is going to be loads to do and you might see something interesting. Then you find they come in and there is nothing wrong with them. They're absolutely fine and you feel the adrenaline go then."

Interview 6; junior nurse

"I think the way it works is just that you can see loads of trauma calls but a lot of them are because of the mechanism, like they fall out of window, but there isn't anything wrong with them. They get the whole team still and some of the tests but it's like its disappointing when they [the patient] get here and you look at them and you can instantly tell there is nothing wrong with them. It's funny that there is a look that goes round the team and like a sense of disappointment. Sometimes you get comments from the team even before the patient has come in that it's not really a trauma call or whatever."

Interview 12; junior nurse

This was evident in the observation when during the preparation for a trauma call the trauma team were arriving and there were some social greetings and discussion about what was coming in. The Team Leader was briefing those who had arrived by saying it "sounds like nothing" and that the trauma team could probably go once the primary survey was complete. The Team Leader had made a judgement based on the pre-alert information that the patient was unlikely to have any injuries that required input from the trauma team. This appeared to have the effect of reducing the sense of urgency in the trauma team and whilst there was a similar level of preparation of the resus bay, there was a more relaxed atmosphere than I had

seen on other occasions. Nurses also picked up on the different response afforded to low level trauma patients from the trauma team:

“The other side to [seeing lots of trauma] is that we do see a lot of stuff that is less interesting and then is it difficult to get people to engage with the trauma call and do what they are supposed to do without wandering off.”

Interview 15; senior nurse

In the same way that nurses had identified their own preferences for looking after the decent trauma patient, the nurses felt that the rest of the trauma team only showed an interest if the patient was severely injured. In applying the categorisation model of Jeffrey's described above (Jeffrey 1979), trauma patients coming into the department were automatically categorised as good or interesting patient based on the level of organisational interest. As the patient's injuries are predicted or the assessment is completed and the patient is no longer seen to warrant the specialist skills of the trauma team, so the view of them as a decent patient seems to diminish. Unlike the patient's described in the work of Jeffrey, patients in this study were not assigned a fixed classification but were able to move along a continuum between consideration as a 'good' patient to one of less interest.

Once the patient did not require immediate treatment it was perceived by the nurses that there was no interest and when the trauma team disbanded it was difficult to get anyone to take responsibility for the on-going care of the patient.

“The first bit is always really quick, when the team are there, once you know what is wrong with the patient then it depends. Most of the time once the patient gets back from the scanner then if there doesn't seem to be much wrong everyone goes, if it is less urgent then you get left with the patient... it gets annoying when they all go and leave you on your own, then you have to spend ages chasing everything yourself and looking for people to help with the log roll or to move the patient.”

Interview 12; junior nurse

“I suppose everyone has their own agenda within the specialities still so when someone is very sick it seems fine but if they don't need an operation straight away or maybe it's a minor head injury then they don't become that interesting and it can be difficult to take them...then no-one wants to take ownership.”

Interview 5; senior nurse

Whilst the rest of the trauma team were able to leave the patient and return to their duties elsewhere once they had decided that the patient no longer required their input the nurses

remained with the patient. This left the nurses in a situation where they were waiting for decisions to be made and unable to move the patient out of the department. Despite this being a situation the nurses found frustrating, this sporadic involvement and interest from the doctors who had ultimate sanction about the patients' trajectory, was the norm in terms of practice in the resus room. The sense of dissatisfaction that at times there was limited interest in the trauma patients that were not seen as decent or exciting also extended to the non-trauma patient in the department. There was a clear contrast in the way the nurses viewed the processes and care for other patients in resus and the attention given to the trauma patient. Whilst individual nurses used terms slightly differently there seemed to be a clear shared hierarchy of interest from the most severely injured to the "rest of the work" in the department, shown in Figure 8. This hierarchy was reflected in the language, behaviour and working practices.

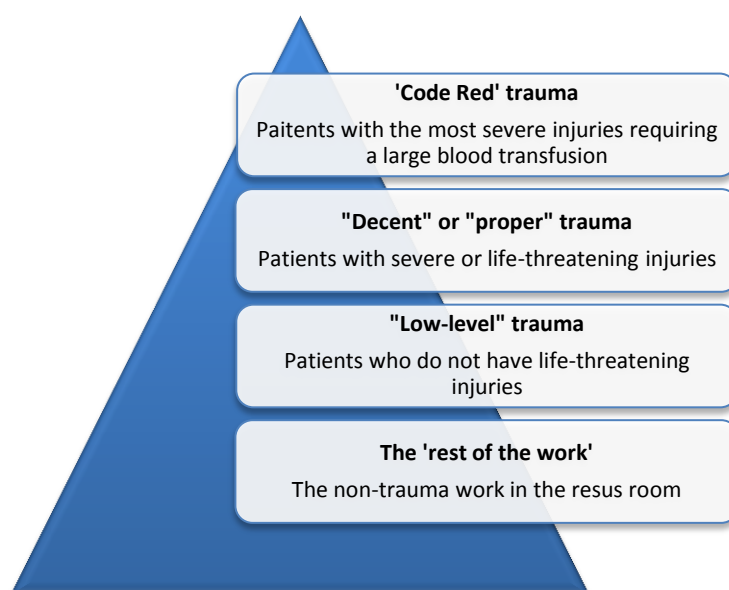


Figure 8: hierarchy of interest in patients in the resus room

6.4.2 The "rest of the work" – the non-trauma patients

It was recognised by the nurses that whilst trauma was viewed as exciting, this was not the patient group that dominated their work as emergency nurses, and that the 'bread and butter' of resus consisted of sick medical patients such as those with sepsis or chest pain. These patients are often in resus as they require multiple and concurrent interventions such as monitoring or

medications, and many of these patients are seriously ill and require intensive and life-saving treatment.

The work of the resus room appeared to be stratified into trauma work and non-trauma work, and it often appeared that the major trauma work was layered on top of other activity in resus that carried on at its own pace underneath the excitement that surrounded the trauma call.

“The other work carries on, you still have the lady in bed 2 who needs a bed bath or whatever and there will always be that, there are times, most of the time when it isn’t all about the trauma even if you’d like it to be.”

Interview 2; experienced nurse

During periods of observation there were many occasions when there was no trauma activity. At these times the atmosphere in the resus room feels calm and is less charged than when the trauma team is in attendance. This is detailed in an episode from my fieldnotes:

Late morning and resus had 8 of the 10 bays full with patients, none of whom were trauma patients, and apart from the occasional monitor alarm there was no significant noise. Nursing staff, of which there were 3, attending to patients. They were clearly working in allocated bays as they only carried out duties within the set spaces. There was occasionally verbal interaction between the nurses reflecting the need for a decision regarding the patients they were looking after “what you waiting for?” or to communicate a plan regarding the placement of the patient on the ward. The pace lacked the sense of urgency that I had observed surrounding the initial receipt of a trauma patient but it was clear that work was occurring and nurses were interacting with patients and writing on charts.

Fieldnotes; day 9

The lack of pace was something identified by the nurses, and whilst they were able to articulate the necessity of the trauma team they expressed frustration that the same level of interest was not afforded to sick medical patients. In conversation one junior nurse commented that trauma patients were often only in resus for a short time and this was not the same for other patients. Many of the nurses were conscious of this difference in urgency toward other patients in resus.

“It’s much easier to get stuff for a trauma patient than it is a sick patient. Like if you want a CT you have it straight away, if you want bloods you get it straight away. If you have a normal patient with normal sickness you wait hours for the bloods to come back and stuff like that.”

Interview 6; junior nurse

This was a cause of dissatisfaction for some who felt that the system was set up to give trauma patient’s priority over others in most circumstances, despite the medical patients being viewed as in need of more attention than some trauma patients. The activity that surrounds the trauma call was often a result of the number of people in the trauma team. This was not the case for

medical patients where there is no equivalent of a trauma team and it was usually a nurse and a single doctor in attendance.

“Thinking about it, it is very different to looking after a medical patient who is equally or sometimes more sick and you haven’t got the same level of support, you might have a protocol but it’s only you and one doctor. It takes longer to get things done, it’s weird that that should happen but it does and it’s harder to get things done”

Interview 3; experienced nurse

This lack of a formal team response to medical patients often meant that the nurses took on a decision making role in determining the priority of the patient and the tests that may be required. This left the nurses feeling they needed to take on more responsibility for these patients and it was left to them to seek specialist help when they thought it was required. Some nurses felt that this meant they were better able to utilise their skills and experience in caring for this group of patients but it was perceived the lack of status in the non-trauma work that meant they did not receive the same attention. The interview data revealed some nurses at times found it difficult to get non-trauma patients in resus seen by doctors in a timely manner, exemplified by the following:

“[Medical patients] don’t get the same care, it’s like that some of the trauma that comes in are quite rubbish and they might be a stab in the arm but there is no artery involved and they get the whole team down. You might have a really sick medical patient and you have to repeatedly contact the medics and they’re not interested, it’s like there is no such thing as an emergency in medicine unless it’s a cardiac arrest, not like in trauma.”

Interview 6; junior nurse

Several informants touched on the contrast in input as being a direct consequence of the amount of resource for trauma patients, which was not available for non-trauma, reflected in the following comment:

“The nurses are interested in trauma so they are interested in looking after the patients so they tend to get looked after well, I mean there is more resources so it’s a bit easier to get things done and they don’t hang around in the department.”

Interview 2; experienced nurse

This was seen by one nurse as a potential consequence of the lack of outward signs that the patient was unwell, and drew comparison to the decent trauma patient:

“Because there is not blood and trauma and a high level of excitement around [medical] patients I think that maybe the emphasis is off them a bit. The care is a bit slower but partly because you have a little bit more time, but also it’s less obvious that those patients really unwell sometimes.”

Interview 15; senior nurse

In conversation it was apparent that some nurses felt it was important to maintain a balance in resus between the excitement of the trauma work and the need to provide care to other patients. During one episode of fieldwork when resus was expecting a trauma call and there were five other non-trauma patients the work around the non-trauma patients continued with the nurses remaining within their allocated bays whilst the trauma team assembled in preparation for the trauma patient. This was not always reflected in the views of the nurses who felt both themselves and the doctors on the trauma team would sometimes have to leave what they were doing to attend the trauma call, reflected in the following comments:

“The trauma patient always gets done first [before the other patients]. If you have other patients then you would want them to have a plan before the trauma patient comes in when you have to leave them”

Interview 7; experienced nurse

“It does mean that the patients in the rest of the department get left because the doctors has to leave to go to the trauma even if there is nothing wrong with the trauma, sometimes that’s a bad thing though. If I was them I’d get another doctor on to do the things that aren’t trauma, yesterday for instance we had a lot of traumas and them doctors who were needed elsewhere had to go and it left people waiting.”

Interview 6; junior nurse

These nurses did place value on the non-trauma work of the resus room and felt that it was deserving of a higher level of input that was sometimes afforded. Patients in the resus room did seem to fit the characteristics of the popular emergency patient and were not viewed by the nurses as low status, but in the sub-department of the resus room the organisational focus on trauma often led to a disparity in their care. This was evident not only in the interview data but in the apparent dominance of the subject of major trauma over the other work in the department. The notice boards in the non-clinical areas largely contained information regarding trauma care, and within resus protocols relating to major trauma were dominantly displayed.

Some nurses recognised the difficulty in maintaining the balance between the interest in trauma and the rest of the work in the department:

“I’ve been in resus when there is more than one trauma patient and there is still not enough nurses, and you have to pull nurses from the rest of the department to help. I suppose that affects the rest of the department, I’ve been the only nurse virtually working in majors when there is more than one trauma call, that can be difficult. I suppose that the trauma patients are probably more unwell so you need people, not always though but you don’t know when the patient comes in so you have to have the whole team there to start with. I think there is a sense for some people that trauma is the most important thing in the department and that it takes priority over everything else. Not all of the trauma is bad but you don’t know.”

Interview 10; junior nurse

“The balance is difficult though, as clearly the need to treat trauma patients properly is absolutely key to survival so you can’t not invest in trauma and the training and resources that goes with it...Most nurses would still say they like the variety that A&E offers rather than just the trauma I think, or at least I hope, so there is a balance in the work environment even if that balance isn’t necessarily translated into the focus that trauma gets.”

Interview 15; senior nurse

The nurses identified a disparity in the level of attention given to non-trauma patients when trauma patients were in the resus room which was remarked upon as a consequence of the disproportionate interest shown toward the major trauma work. Despite their personal interest in this work many nurses were able to reflect on the need to maintain a focus on the “other work” as a way to balance the priority they felt was placed by the organisation and department on major trauma.

The final section in this chapter moves from the reputation and status work surrounding major trauma to the nurses’ perceptions of their own working practices. The specific role of the nurse in the trauma team was a dominant area for discussion within the interviews and became categorised under the theme exploring nurses’ perceptions of their role in major trauma work.

6.5 “Removing the clothes” – nurses’ perceptions of their role in major trauma work

This section presents the nurses’ perceptions of major trauma work which gives accounts of their role in looking after trauma patients and their feelings towards working in the MTC.

Whilst the condition of patients varies widely in the resus room for the most part the nurses were observed to carry out their role in isolation of the other nurses and interacting with medical staff

for brief periods to decide on the course of treatment. This was different to the how they perform their role when with a major trauma patient.

The work surrounding the major trauma patient is structured using the trauma team approach described in chapter 5 where both doctors and nurses work alongside each other simultaneously and carry out specifically allocated roles. The protocol for rapid assessment requires the component parts to be divided across members of the team. Despite the positive views stated regarding the personal relationships between members of the trauma team, some nurses expressed a level of dissatisfaction with their allocated roles in the team and would often describe their own role to me in terms of a set of tasks or routines, exemplified by the following examples:

“Obviously you cut clothes off, put the monitoring on, that’s it in a nutshell but that is a normal trauma. It does get a bit boring if you’re a nurse because you don’t need to help with the airway as the anaesthetist is up there and the ED reg is putting a line in, whereas what can I do? I write down the obs.”

Interview 14; junior nurse

“It’s not the most challenging thing from a nurse perspective to be involved in trauma... because it’s quite formulaic. You’ve probably heard that before, you do the same sort of routine over and over with different patients.”

Interview 8; junior nurse

This junior nurse’s account of initial activity detailed some typical tasks for nurses in the team:

“The doctor does the primary survey and you get them undressed, see if they’re bleeding. Getting the patient undressed, and usually getting them straight to scan. For nursing roles you have your scribe nurse, you usually have 2 nurses at the bedside assisting in undressing the patient and reporting anything to the scribe and doing anything the doctors need you to. GCS, pupils. There’s a lot of the doctors informing the scribing nurse and we would only need to [tell them] if the doctor didn’t.”

Interview 10; junior nurse

The formulaic nature of the trauma call could be observed in the setting up of the equipment prior to the patient arrival, where everything was laid out in the same way each time, and also in the approach to assessing the patient previously described. In an ethnography of a US ED Hightower (2010) similarly noticed routine patterns of behaviour occurring within the ordering of the space. The nurses recognised that the routinised activity is required to give a clear and structured approach to what could be a chaotic and challenging event. This was particularly important in dealing with severely injured patients in offering structure to the work and in

providing a level of reassurance regarding what they were expected to do. A senior nurse, reflecting on the use of strict team roles, commented:

"I think there is more understanding of the role, the roles are allocated and written down in advance, before we just did everything randomly as there was no one else to do it. Now there are more people so you can allocate specific jobs, the airway nurse. They are on the notice board in resus so if you don't know them you can look at them."

Interview 9; senior nurse

This orderliness was not seen as occurring in all trauma cases and there was a feeling that a consequence of the patient being considered 'decent' was a detrimental effect on the nurses' roles in the team, particularly when there were a large number of people in attendance due to the heightened interest in this type of patient. This was referred to by several of the nurses (interviews 7, 9, 12, 13, and 14) and illustrated as follows:

"The point of the whole major trauma thing is to get everyone involved really quickly so you'll have the trauma consultant, the ED bod, ortho, surgery, anaesthetic and that's the minimum, then you get cardiothoracics, maxfax and whoever else you need to come down. You get at least 5 or 6 people and they bring flunkies, med students. You can end up with 15 people, particularly for children, you get everyone, paed trauma you have to sit on shoulders, it's crazy."

Interview 14; junior nurse

"I think that you end up with too many people at the trauma call, and it means you end up not getting involved because everyone else comes in and takes over so even if you do have a role like breathing, you can't do it properly because you can't plan to do what you're supposed to because you don't know what else is being done. There are times when you can't get near the patient and you can't learn anything because there are too many people"

Interview 13; junior nurse

This feeling that the roles became confused when there were more people around than required was echoed by several of the nurses who appreciated that whilst the patients may need to receive urgent treatment the large number in attendance often caused confusion in their own role:

"The trauma team is there really in case it is urgent or life-threatening and you definitely need them then but most of the time there is lot of people and you don't really know what your role is. The amount of people gets worse the sicker the patient is and then you can't get near sometimes for the doctors around. The team roles can get quite muddled then and then you don't know what you are supposed to be doing, I think that is when I get a bit frustrated because you can't do what you should be doing and things get missed."

Interview 12; junior nurse

These accounts of the difficulties in caring for the decent trauma patient stands in contrast with how the nurses described the functioning of the trauma team in most situations, where the roles

were seen as being strictly defined. Whilst the nurses reflected on how a large number of people at a trauma call impacted on their role, these quotes also show a breakdown of the structure of the team that is crucial for effective team working. In conceptual framework of team working Reeves et al (2010) identify that teams composed of more than 10 people have difficulty working together due to problems with clear communication and role confusion. Whilst I was not looking specifically at the trauma teams' effectiveness, the nurses I spoke to felt the complexity of the patient, or at least the perception of such, seemed to increase the difficulty in the functioning of the team. This gave them the impression that the trauma team in these situations was disorganised and that they felt they lost control of their role. One nurse, in contrast to the views of his colleagues, acknowledged the large volume of people who would often arrive for 'decent' trauma calls but viewed the additional people who would attend as a resource to help out rather than getting in the way:

"The difference [with the severely injured patient] and the perception with trauma is that you haven't got the time and everything needs doing then...particularly the Code Red patients you haven't got an hour to make sure that the fluids are right and the antibiotics given, this patient is going to die if you don't do something then"

Interview 8; experienced nurse

Both in my observation and in the interviews it was clear that the nurses viewed their role in terms of the pre-defined protocol. They did not seem to place great value on what they were doing or its contribution in caring for the patient. Despite this perception some of the ED nurses highlighted the importance of own their privileged knowledge of the department and its resources and their vital function in team effectiveness:

"Because I'm on my home soil and I'm an ED nurse I know where all the equipment is, how the monitors work and a lot of it is spent running around getting stuff for people because they don't know where it is...Because it's always the on-call surgeon or whatever the team changes every 24 hours so you need someone there who has done it before and knows where the stuff is and where we are going. There is definitely a need to have someone in the team who is a constant."

Interview 14; junior nurse

The nurses also felt that their longevity in the trauma team was of great value, and its recognition became a source of reward:

"It's all very well having doctors on the trauma team but as your knowledge and experience expands you get a bit more involved and as the teams get more familiar and as the juniors move on, the FY2s, then you kind of, your experience counts for something and you can speak up and say you don't want to do this or that and team knows each other then you have more

respect as your nursing knowledge is known about and the team leader knows who you are. That's where the interest in trauma for me is."

Interview 8; experienced nurse

There are some echoes with a qualitative study on perceived roles in the trauma team in the US by Speck et al (2012) who observed that it was nurses who assumed ownership of the trauma bay and took a responsibility for its orderliness.

Within the resus setting outside of the trauma call I observed the nurses to have a degree of independence in the way they planned their care for the patient, often seeking doctor's assistance only when they saw fit. When I questioned them about the role of the nurse in a trauma call, my interviewees often chose to make a direct contrast with the nursing role when caring for other types of patients. Interviewee 10 for example expressed the view she could "do more" with 'sick medical' patients than in trauma. These are patients who come into the department with a serious illness such as a heart attack or severe breathing problems. Care for this type of patient does not involve a team response in the same way as is provided to a trauma patient and most often a nurse would perform the assessment of the patient initially:

"The big difference [between trauma and medical patients] is the support, and physically you have a lot more hands and there are a lot more people around and all the specialities and you can turn to anyone but for a medical septic patient it will just be you and a doctor and it will be "can you get a line and antibiotics"

Interview 3; experience nurse

The nurses felt they were afforded more autonomy for making decisions with this group:

"In trauma you rely on others in the trauma team to pick up on things so feel like there is always back up, with other patients you take sole responsibility in providing their care"

Interview 15, senior nurse

It seemed they felt that they were personally able to achieve more with the medically unwell patients. Nurse interviewees would often talk about being able to "get on with it" and to plan the care for their patient on their own, referring to the doctor for advice only when they felt it was necessary.

"I think there are less people around [with medical patients], but there is more to do. I like those patients because you can see them getting better sometimes, they're in resus for longer so there isn't the urgency to get them out or sometimes the other teams don't come as quickly. That's why you end up looking after them for longer but at the same time you have to do more and you get to spend more time with the patient."

This left some nurses wishing to apply the same level of decision-making they were afforded in other areas of their practice to the trauma patients. The desire of some of the nurses to do more than their ascribed role developed as a sub-theme.

6.5.1 Wanting to “do more”- expanding the nurses’ role in trauma

It was evident from the interviews and conversations that a small number of nurses found the highly structured roles a source of frustration because they placed limitations on what they felt they could contribute within the trauma team. This led to some of the nurses wanting to “do more”, this was a direct quote from one of the nurses who felt they had the skills to carry out more than the role she was ascribed:

“I think it can be quite limiting in that there is no movement from how to do things, you do the same things every time so it can get quite repetitive...because there is always a consultant and a trauma team you don’t need to do much else. I think there is scope to expand the role of the nurse more and do more assessment”.

Interview 2; experienced nurse

Some experienced nurses expressed a wish to utilise the skills that they had developed and were using in other areas of practice outside of major trauma. In other areas of the department, particularly in the management of ‘minor’ cases, the boundaries between the doctors and nurses had been partly dissolved and nurses undertake practitioner roles in independently assessing and managing patients. Such roles are common in emergency departments, and often follow a quasi-medical model where nurses undertake role substitution for doctors within a defined patient group (Tye and Ross 2000; Fisher et al 2006). This means experienced nurses are used to performing many of the assessment skills that were assigned only to the doctors in the trauma team. Some nurses, whilst feeling that expanding the nursing role was desirable in trauma, were unclear if there would be any possibility of doing this beyond what they saw as the given ‘support’ roles due to the medical dominance in this area:

“To me it just seems that when they come in you stick the on the monitor, do the ECG and get them warmed up if they need it, get fluids and drugs sorted out. Do the observations, I suppose then warm them up and get them ready for CT and see if they’re stable. The doctor does ABCDE and the nurses just put on the monitors. They are there to support the doctors”

Interview 6, junior nurse

"When the patient comes in everyone in the team has a role and mainly I would support one of the doctors and get the clothes off, put the monitoring on and then do the other things dependent on what was wrong with the patient"

Interview 12, junior nurse

The role of the nurse as supporting the doctor meant they did not necessarily view their role as distinct in the team and did not seem to value what they were doing as highly as the roles of clinical assessment or interventions that were carried out by doctors. At times they referred to their role as "basic" or "not much":

"I suppose essentially you are gaining all the information you need from the patient about haemodynamic status and you're basically there to do a nursing role so you're there to keep the patient safe, warm, everything else."

Interview 8; experienced nurse

"As a nurse here you tend to have a role and the minute [the patient] gets here you put on the monitoring, get them undressed and then step back and that's it. It's the doctors who do everything, you might get called to help but the doctors sort it out. It seems to me that the role of the nurse in a trauma isn't very big"

Interview 6; junior nurse

The trauma role the nurses presented is a traditional view of nursing as task delegation and as an 'attendant' role within a medical model of care. There were occasions when nurses were observed to do more in the trauma call than the roles assigned. When the workload of the rest of resus was heavy or if there were simultaneous trauma calls nurses reported that there was an opportunity for them to undertake some components of the doctor roles. As there is only one trauma team available at a time having two or more trauma patients has the effect of splitting the team with fewer doctors available to fulfil the roles required. This had the effect of allowing the nurses to 'fill in' for elements of the doctors' role in a way they did not when the whole team was available. During my periods of observation this occurred more than once and I saw that experienced nurses worked interchangeably across roles, taking a more directive approach toward others in the team. The nurses also viewed this as beneficial:

"I think there is more opportunity for nurses to become more advanced in trauma...For band 6 and 7s you have that junior leadership of the nursing team thing in trauma anyway but having some kind of qualification you have a verified voice and sort of advanced assessment, say yesterday when we had 3 HEMS calls in 20 minutes and you don't have the ability to get full trauma teams to all of them then the nurses should be recognised as being able to do a primary survey. That would be an advantage; I would be happy to say that I could auscultate the chest and percuss the chest in a patient on a more equal footing with the doctors. You would need to be absolutely confident in your team's ability but it's a role we are capable of doing and we do in other areas of the department, why can't we expand that into trauma?"

Interview 8; experienced nurse

“The main issue that I’ve seen is that when you get a really sick patient come in, multi-trauma and then you’re trying to deal with that and then the phone goes and there’s another one in 2 minutes and the trauma team are busy with this one it’s really difficult. I think we need a backup system so we can deal with more than one patient at a time which I don’t think we have, so it does not feel like we have.”

Interview 2; experienced nurse

On an occasion when there were two trauma patients in the resuscitation room concurrently one of the patients, who appeared to be less severely injured than the other, had a junior and senior nurse along with a doctor assessing them, less than half of the number of people than was usual in a trauma team. The senior nurse was directing both the junior nurse and the doctor as to what should happen next and checking with the doctor what they had found in their assessment and that they had requested tests and made sure that the patient was stable. Afterwards the nurse commented that often the senior nurses would take on such informal leadership roles with the less experienced staff as they were aware of what needed to be done.

The task-orientated view of their role in trauma dominated in the responses from the nurses to my questions in interviews but there were some exceptions. A very small number referred to components of the role which were related to ‘caring’ for the trauma patient.

6.5.2 “Being an advocate” for the patient – nurses views on the caring role

A minority of nurses articulated aspects of the nursing role in the care of the trauma patient beyond listing the pre-allocated tasks. In conversation with one nurse during a period of observation she had remarked on some of the severely injured patients she had looked after and made reference to the need to support them in resus through “a terrible event”. This nurse was the one of only four (out of 31) during my fieldwork who came close to acknowledging the potential psychological impact on the patient. Patients in trauma situations are in the position of suddenly become dependent on others to fulfil their needs and there are many examples in the literature of trauma patients feeling vulnerable and frightened as a result of being in unfamiliar situations (O’Brien and Fothergill-Bourbonnais 2004; Wiman and Wikbald 2004; Merrill et al 2012). This was recognised specifically by one nurse:

“At the end of the day there is still a patient and even if there is nothing wrong with them they are still going through a traumatic event for them...I kind of know what’s going on because I have that level of knowledge, you’ve still got to look after them as patients. The doctors leave

and that's when you reverting back to nursing in its traditional sense and when the role of the nurse in trauma it becomes really important, to make sure people understand what is going on.”
Interview 8; experienced nurse

As already noted the nurses were familiar with the pre-determined roles and drew on them (often almost verbatim) when talking about the nursing work in trauma. There is some consideration of the psychosocial needs of the patient within these roles, specifically in those of the 'airway doctor' and 'airway nurse' who are assigned to “assume 'talking role' with patient”. But even with this specification, communication with the patient was only described by two nurses when talking about the roles:

“The doctor will do various stuff but you should be managing the patient from a holistic point of view, giving medications, doing the basics and making sure the patient is covered and as they come through the door doing the basic role”

Interview 8; experienced nurse

“The nurse looking after the patient is doing observations, assisting the doctors, getting the patient undressed and going to CT. Taking care of the patient throughout.”

Interview 9; senior nurse

A ethnographic study of interprofessional working in the ED noted that emergency care, such as that of trauma patients, is defined by the need to address immediate physical needs rather than psychological ones (Annandale et al 1999).

One nurse, whilst referring to themselves as 'junior' within the following quote had been working in an ED setting for 7 years and could recognise the unique value of the nursing presence within the team:

“As a nurse our role is important because you notice things and you might say something or have an opinion if you're feeling brave enough, I'm quite junior so sometimes you feel like you can't say but you might say “are you sure you want the patient to go?”. It's being an advocate. Sometimes the process is happening and you say “do you think we should get the patient some painkillers?” so you act as a go between.”

Interview 3; experienced nurse

Nursing work is often described in terms of consideration of holistic care but it seems almost impossible to develop this within the context of the initial stages of major trauma assessment where the organisational demands are for technical skills and efficiency. This places less emphasis on the non-technical or caring components of the trauma team. The limited attention paid by the nurses to describing the non-technical aspects of their role goes someway to

reinforce the study findings that the nursing role in trauma is task-orientated. An alternative explanation is the nurses saw the 'comfort' role in trauma as integral to their work and therefore did not feel it was part of the uniqueness of the trauma work they were often describing.

6.6 Dissident voices

Not all nurses demonstrated the same enthusiasm for major trauma. In contrast to the "traumatized nurses" I observed occasions that nurses working in the resus room stepped back from the trauma team and let another nurse take their place. When I asked about this one experienced nurse remarked that she "wasn't that bothered about trauma" and she was willing to let someone else take her role in the trauma team. I discussed this observation with one of the more senior ED nurses who felt that trauma was such a key component of the role of the nurse in the MTC who stated:

"I think some of the things that concern me are that not everyone is interested in trauma and that saddens me because I find it hard that nurses would even enter the ED without having any interest in trauma."

Interview 1; senior nurse

This sense that not everyone was engaged with the trauma work was also reflected in approaches made during field visits to some nurses who stated they were "not interested" in trauma. Further clarification of why this was the case was made difficult by their lack of engagement with the study but one senior nurse revealed that she thought there was too much focus on the trauma and that it was quite disorganised with lots of people "running around". Whilst further expansion on this was not possible during fieldwork and she did not want to be formally interviewed, she did suggest that her experience in the ED had meant she had seen a lot of trauma and that she no longer found it exciting. This notion that the excitement and drama lessens over time was also reported by one nurse in a qualitative study exploring perceptions of ED work by Byrne and Heyman (1997). I found the view that interest in major trauma diminished over time was echoed by other nurses all who had worked in emergency nursing for over 10 years, who felt that the excitement surrounding trauma was perhaps transitory and was something that wore off.

For example in reflecting on why she thought other nurses liked trauma:

"I think most people enjoy it. I think they do like it in terms of it keeps you going and in terms of skills it keeps you going, you know the adrenaline rush. But I think it fades away, as the years go on [laughs] I think you get less bothered. In the beginning you rush in and then as you have more experience you think "ok, trauma, let's get on with" and just follow the system."

Interview 9; senior nurse

"I think I'm lucky in my role because I've been around in A&E departments for a long time and involved in trauma for a long time so I think I have probably done my fair share of that, coming in for trauma calls. If I look at myself when I was in A&E to start I was the same [in resus all the time for trauma]. I think you grow out of it, the need for excitement that you get with trauma."

Interview 5; senior nurse

There are features of the work situation of nurses within the MTC that seem to be a direct consequence of developing the medically dominated model of trauma care in the ED, in particular the view that the nursing role was formulaic and constrained by the organisational model of care. Despite the views expressed that nursing within the trauma team was often not that interesting, this was not reflective of the perception of major trauma more generally that was often described as the most appealing part of the nurses' work.

6.7 Chapter summary

The findings of the nurses' accounts of the major trauma work reveal four interrelated themes that illustrate the high status afforded to specialist trauma services by some nurses and its impact on their work situation. This rise in status was perceived to be a gain for the ED by those working within it, and therefore the attention on major trauma was somehow seen as a warranted and inevitable consequence of becoming an MTC. The ability of major trauma work to enhance the status of the organisation was evident in the profile it was given in the department and by the nurses, and to the disproportionate interest shown toward this work. The emphasis on major trauma justified the investment made by the hospital and the ED, and reinforced major trauma as being a legitimate draw to working there. This draw was associated only with the sub-group of patients described as 'decent' by the nurses, and in particular to the high status 'Code Red' trauma patient. This group of patients raise the profile of major trauma in the department and also the nurses who look after them.

Whilst some of the nurses selected to work in the MTC due to the trauma work it was only the expectation of the decent trauma patient that sustained their interest. Despite this the findings

reflect the view that the higher the status afforded to the major trauma patient the less able the nurses felt to undertake a role that they found satisfying. Nurses in this study were attracted by the status of major trauma work described in both this chapter and chapter 5, but perceived their role was constrained and directed by medical staff in a way that did not occur with non-trauma patients. In spite of the attraction major trauma patients held for nurses their component of the work, described in section 6.5, was portrayed by the nurses as formulaic and lacking in interest. In other areas of the department the nurses were afforded a high level of autonomy in how they organise and plan their work with some having been able to expand their role to independently assess and diagnosis patients. This was not the case for their role in major trauma where they felt they had the ability to “do more” than the tasks they were assigned and better utilise their skills. Consistent with the overall feeling that nurses in this study found major trauma patients to be ‘exciting’, some nurses did not object to their prescribed role in trauma as their interest was maintained by anticipation of the rare but exhilarating ‘decent’ trauma patient.

Despite the nurses describing the integration of the trauma work into the ED as the ‘daily diet of trauma’ (detailed in section 5.5 of the previous chapter) the actuality was somewhat different. Major trauma practices appeared far from integrated and in the nurses’ accounts contrasting the ‘other’ patients, the major trauma patients were clearly set apart by the buzz they generated in the department and the distinct response from the trauma team. The enthusiasm by which nurses talked of ‘decent’ (severely injured and therefore interesting) trauma patients was juxtaposed against the disparity they noticed in the care of other patients. This shows the organisation being geared up for trauma in a way it was not felt to be for other patient groups, the consequence of this being a shift in focus away from the “rest of the work” in the department when a trauma patient was expected. This had the effect of major trauma being disruptive to the ‘normal’ practices in the resus room and led to its appearance as sporadically ‘interrupting’ the other work in resus.

The interrelationships found across the themes go some way to describe the complex work situation of the nurses within the MTC as one where the perceived prominence of major trauma does not in fact reflect the reality of working in the ED where ‘the rest of the work’ occurs routinely and serious trauma is an unusual occurrence. The following chapter discusses the

study findings in relation to the two overarching research questions and considers them in the light of existing literature.

Chapter 7 Discussion

7.1 Introduction

This chapter returns to the two overarching research questions posed at the start of the study and considers them in light of the findings presented in chapters 5 and 6 that showed how the value placed on the high profile major trauma work pervades the culture of the department.

The chapter summarises how these study findings contribute to addressing gaps in knowledge about the work situation of nurses in the new Major Trauma Centres, and articulates the contribution of the research to extending the empirical literature. The research questions are answered by the data from the study which contributes to explaining the complexity of the nurses' work situation. Two main arguments are put forward. Firstly, the notion of the 'exciting', 'decent' patient as the one with serious and technically demanding complex injuries undermines the value placed on the care of other patients in emergency departments. Second, that the protocol-driven nature of the major trauma work fits the immediate patient needs but minimises the ability of nurses to negotiate their professional boundaries in a way they are often able to in other areas of their practice.

7.2 “What are the perceived effects of MTC designation on the hospital and its work and its nurses?”

The first overarching question posed at the start of the study concerned the broader issue of the effects of MTC designation on the organisation and its work and its nurses. The elevated status that is afforded to major trauma work was strongly in evidence throughout this study, in and reported in some detail in the “*status and profile*” theme in chapter 6. Used in this sense ‘status’ means “the amount of respect, admiration, or importance given to a person, organisation or object” (Cambridge University Press 2013), and it is this aspect of MTC designation and its effects that is explored in the next sections.

7.2.1 Implications of MTC designation for the hospital

The ED is only one component of the hospital as a comprehensive MTC, which also includes specialist surgical services, intensive care and separate in-patient wards. The nurse interviewees unanimously felt that the development of the hospital as an MTC had been to its

benefit because it elevated its standing above that of non-designated hospitals. This gain came largely from the hospital having specialised services. This matches the language used in documents about MTCs from the NHS and individual hospitals, and reflects an assumption that specialist centres generally, and MTCs specifically, are expected to be functioning at the highest level. The service specification (the contract) for MTCs in England, established at national level defines this philosophy:

“Major Trauma Centres (MTCs)...sit at the heart of Trauma Networks as the centres of excellence providing multi-specialty hospital care to seriously injured patients, optimised for the provision of trauma care.”

(NHS England 2013b, p.4)

The idea of a “Centre of Excellence” can also be seen across a large number of MTC mission statements on publically accessible websites.

One of the further institutional gains for the hospital of major trauma designation, as detailed in Chapter 6, was its increased desirability as a place to work. As described under the theme *the draw of trauma*, nurses made a decision to work in this ED because of the hospital’s reputation that it “saw a lot” of trauma.

The draw of reputation is well documented in the literature. Fombrun (1996) describes organisational reputation as the “perceptual representation of a firm’s overall appearance compared to other leading rivals” (p.72), and a factor in potential employees’ decisions to apply for jobs. Other studies have similar findings (Cable and Graham 2000; Turban and Cable 2003; Rindova et al 2005; Pastor 2012). For some of these nurses there was no going back, they would not wish to work in an ED that was not part of an MTC.

The reputation was not only within the professional community. Lange et al (2011) provide a conceptualisation of organisational reputation into three areas: 1: “Being known” (by name); 2: “Being known for something”; and 3: “Generalised favourability” (being seen as more or less attractive in relation to other places). In this case the high profile that major trauma cases were given in the local media and the featuring of this ED in a national television documentary, and the publicity that surrounded this, meant that the hospital was ‘being known’ for the major trauma work.

7.2.2 Implications of MTC designation for the work of the ED

The ED had immediately benefited from the desire to achieve MTC designation as this led to investment by the hospital in additional resources for the department. This had included expansion and refurbishment of the resus room and an increase in the number of nurses to accommodate the major trauma work. It also had little problem recruiting staff. An ED nursing post in the MTC was also now seen as prestigious and desirable. Indeed the nurses with these posts reported that it was seen as superior to a nursing post in other areas of the MTC, such as the wards, and better than a post in an 'ordinary' ED – an emergency department without designation to receive major trauma cases. The nurse interviewees emphasised their superior technical skills and knowledge when comparing themselves to nurses in these other settings, and they perceived themselves to hold higher stature than other areas of practice.

The high status of major trauma was positively reflected in the overall reputation of the ED but this also reverberated in other ways that were more problematic. My findings indicate that these patients were accorded special status over other patient groups, and that this was conveyed in the language used by the nurses and the practices established in the department. Somewhat contrary to their actual experience of task-orientated support roles within the major trauma team, nurses used a shared narrative of "excitement" when referring to the care of trauma patients and many suggested to me that major trauma care was the "best bit" of working in the ED. The short-lived and intense nature of the trauma call, outside of the "routine" work of the resus room, contributes to this feeling of dramatic excitement in trauma work. Here the 'talk' is particularly striking to the outside observer: severely injured trauma patients were considered to be "decent" or "proper" patients. These were distinguished from the low-level trauma patients, such as those with single limb fractures, who were viewed as not "having much wrong with them" by comparison.

A body of work from medical sociology has highlighted how certain types and characteristics of conditions or patients are more or less appealing to clinicians than others (Mannon 1976; Jeffrey 1979; Bernstein and Kane 1981; Johnson and Webb 1995; Dodier and Camus 1998; Thornicroft 2007). This work that identifies the 'unpopular' patient also shows that some conditions by direct contrast are seen as 'popular' with healthcare staff and that these attract more positive attention. Roth and Douglas' (1983) ethnography of a US emergency department

for example found a working categorisation of patients similarly to an earlier UK study (Jeffrey 1979) and also that a more positive view of the patient type was associated with the patients' professional worth. This worth was determined by how closely the patient's condition matched the perception that healthcare personnel had of their own role in allowing staff to "practice" in their chosen speciality. For example surgical patients who required early treatment allowed surgeons to act out as a "man of action who can achieve fairly rapid results" (p.93) and were therefore considered deserving. Nurses in my study also distinguished their work in 'resus' by grouping patients according to the hierarchy of how interesting they were perceived to be, with elevated status accorded to the "proper" trauma patients. From my findings I noted the hierarchy in some cases represented the urgency of condition but patients were categorised as being worthy or less worthy based on two factors: 1: visible signs of injury (the presence of blood); and 2: the level of technical expertise they could exercise with the patient.

Whilst there is some congruence with findings of previous studies, the latter do not fully explain the attractiveness to nurses of the major trauma work over all other work in the 'resus' room. As described in Chapter 5, the 'resus' room is the place where the most critically ill are treated and is an area of high technology usage for monitoring and treating patients. There were many other patients who might feasibly have fitted a categorisation of the 'worthy patient' on the grounds of requiring technical input, but nonetheless these were not afforded the same high status by nurses as the trauma patients. One plausible explanation is the MTC designation and consequent creation and coordinated performance of major trauma teams forced this group of patients to high visibility and the top of the hierarchy for preferential treatment.

Some nurses were mindful that the corollary of high intensity attention to some patients is likely to be lower priority accorded to care for other types of patient – those identified in the hierarchy of interest in chapter 6 as "the rest of the work". One form in which this disparity manifested itself was in the absence of written clinical protocols relating to areas other than trauma. Another was the lower status accorded to care of non-trauma patients in the 'resus', those with conditions such as chest pain and sepsis.

7.2.3 Implications of MTC designation for the ED nurses

As mentioned above, MTC designation led to an increase in pressure to maintain the hospital and departmental reputation and to “get things right”, a consequence of being known as a specialist centre (Luoma-aho 2007; 2008). Four of the nurses independently mentioned during interview that the MTC’s media profile increased their obligation to be “good at what we do”. Wade et al (2006) refer to this as the “burden of celebrity” whereby being well known means increased scrutiny. However, these nurses also viewed the increase in expectation optimistically as an opportunity to develop their knowledge and skills so they could look after trauma patients “properly”. Thus, in this early period at least, they found the MTC to be a dynamic place to work and in which they hoped to develop professionally.

Emergency nursing work is defined by its focus on rapid assessment and preliminary care and nurses perceive their role to be primarily concerned with dealing with emergencies and providing urgent physical care (Byrne 2001; Nyström et al 2003; Fry 2008). From this viewpoint the pace and urgency of major trauma work epitomises emergency care, and nurse interviewees therefore felt their own enthusiasm for caring for major trauma patients was a positive attribute. The nurses subscribed to a collective notion that major trauma patients were “decent” patients they accepted their elevated status in the ED. This status was based on the importance placed on technical expertise around these patients and characteristic of a biomedical approach emphasising theoretical knowledge over humanistic values of caring (Parsons 1994; Arthur 1999; Alasad 2002; Rust 2010). Whilst nurses in this study valued technical proficiency over ‘caring’ aspects of their role, Locsin (2005) argues technical and caring aspects of nursing should not be seen as dichotomous, advocating “a model of practice whereby a nurse, one who is technologically competent, is understood and appreciated as a caring nurse” (Locsin, 2005, p. xv). As healthcare technology has become increasingly complex, nurses have been required to develop greater technical expertise and knowledge (Scott 2008), leading to technical proficiency increasingly being seen as a competent of nursing practice (Johnson et al 2012). Whilst I agree with the view that both technical and caring competency is required, in this study there is an imbalance in these aspects whereby the notion of the ‘exciting’, ‘decent patient’ as the one with serious and technically demanding complex injuries undermines the value placed on the care of the ‘other’ patients.

There was also some implicit tension in nurses' accounts; firstly an attraction to the reflected glory of high status major trauma work was accompanied by acknowledgement that their own role there was highly circumscribed. Second, a valuing of the drama of major trauma as more exciting than the everyday work of the ED could turn to concern when colleagues were seen to overstep the mark in this regard. Thus a group of nurses were labelled critically by others as the "traumaholics" because they were deemed to show excessive preferential interest in major trauma patients to an extent that was disruptive to the functioning of resus and the wider ED – those domains in which the majority of patients are care for and in which nurses have more autonomy and control over their work.

7.3 "How do the working practices surrounding major trauma affect the work of the nurses in the ED?"

The second of the two questions posed at the start of the study concerned how the working practices surrounding major trauma affect the work of the nurses in the ED. My observation revealed that the activity surrounding the high status major trauma work was clearly distinguishable from the rest of the work in the resus room where the most acutely life-threatening conditions are assessed and given care. The 'difference' accorded to a major trauma case (as opposed to a case of chest pain or breathing difficulties), was most obviously indicated by the concurrent presence of the whole 'trauma team' to attend to the individual patient. No other patients in resus were afforded the same level of organisational response or were attended to in such a concerted manner. The nature of the response was epitomised in the clinical protocols that clearly defined roles and tasks for all team members.

7.3.1 The significance for nurses of the MTC clinical protocols

Clinical protocols are written documents detailing step-by-step how a patient with a particular condition should be managed (for example, the trauma team roles in Appendix 11). They are intended to be based on the best available evidence about effective care and to ensure that required actions are precise and timely. These played a key role in the major trauma work in the ED. Clinical protocols for the management of major trauma cases were a requirement of the MTC designation process, and were seen as key to its success, exemplified by a nurse interviewee:

"We've now got a fabulous patient care pathways and that knocks on to...the knowledge and skills that then nurses have"

Interview 8; experienced nurse

There is some evidence from evaluations to suggest that trauma teams do improve decision-making and optimisation of care for major trauma patients (Curtis et al 2011; Gerardo et al 2011; Leung et al 2012).

The clinical protocols also served to continually reproduce the nature of the major trauma work, reinforcing its underlying assumptions. This was most overt in the way that these clinical protocols demanded the pre-defined team structure and precise role-definition for every member of the trauma team. Here the construction of, and adherence to, the clinical protocols by the trauma team could be said to exemplify day-to-day practice of 'boundary work'. This concept was originated by Gieryn (1983) to explain the demarcation of professional practice through the reinforcement of boundaries as a means to gain professional legitimacy and influence. Gieryn's study of scientists found that they attempted to control their public image by selecting characteristics that set themselves apart from non-scientific or technical activities. Originally concentrating on boundaries established during specific events, Gieryn then built on this work to explore the concept of boundaries between occupations (Gieryn 1999). A number of subsequent studies across a range of settings have used his idea to detail the creation and maintenance of boundaries around professions, exploring areas of practice of blurring of roles across professional groups in the development of healthcare roles. Settings for these studies include community nursing (Gray et al 2011), operating theatres (Timmons and Tanner 2004; Goodwin et al 2005), intensive care (Carmel 2006) and the Emergency Department (Hughes 1988).

Within the major trauma team that I studied the emphasis on clearly differentiated task-driven roles would appear to reinforce the boundaries of the individual team members. This finding contrasts with those from existing studies of major trauma teams where, even when role boundaries were defined within a clinical protocol, in practice they were not static and there was observed to be a blurring of roles that flexed according to patient's condition (Wolf et al 2003; Yun et al 2003; Yun et al 2005; Berlin and Carlström 2008; Berlin 2010; Georgiou and Lockey 2010; Sarcevic et al 2011). In their case study of trauma teams in Sweden, for example, Berlin

and Carlström (2008) noted these operated in an environment of “synchronous co-operation” that required each member to act independently and with authority in their given role. They observed a blurring of the distinct roles of trauma team members who swapped tasks across professional groups according to the needs of the patient.

These studies show the team interactions as complex and dynamic where there was opportunistic adjustment of the team roles based on the needs of the patient. This resonates with the concept of negotiated order identified by Svensson (1996) who found in a study of nurse-doctor interaction in Sweden that team members made decisions about how work was organised and who did what dependent on the situation. This study, and others (Allen 1997; Allen 2000; Carmel 2006; Gray et al 2011), observe this negotiation in areas of practice not constrained by the strict hierarchical protocol operating in my study. This emphasises the enforced boundaries on the team roles as a result of protocol. Despite the multi-professional nature of the trauma team in the MTC I studied I found the flexibility between roles highlighted by Wolf et al (2003), Yun et al (2003; 2005), Berlin and Carlstrom (2008), Sarcevic et al (2011) occurred only between the different specialist doctors, for example the ‘airway’ doctor performing the ‘breathing doctor’ tasks. Specialist doctors apparently felt able to resist complete definition by clinical protocols and to assert a degree of autonomy when they felt it was required. There was even an expectation of flexible working across the doctor roles within the trauma team protocol, with the ‘breathing doctor’ assigned to “assume role of co-doctor [team leader] if necessary”. It did not extend across the professions to include nurse members of the teams.

While engaged in the major trauma team, the nurses were confined to the task-oriented roles laid down in the clinical protocols. The clear nurse-doctor boundaries and differentiated role assignment was born out in how nurses described their own role within the trauma team for example referring to being the “airway nurse” or “scribe”, as described in detail in the *removing the clothes* theme in Chapter 6. For their part, within the trauma team clinical protocols the division of work between the ‘doctor’ roles was clearly demarcated by the specific clinical expertise of each member of the team, for example the anaesthetic specialist managing the airway, the surgical specialist managing circulation and haemorrhage (bleeding) problems. The

nursing roles in major trauma care were task-focused and relegated the nurses to providing secondary support for the doctors.

The relationship between nurses and doctors has been characterised by a historically powerful hierarchy (Sirota 2007; Holmes et al 2008; Churchman and Doherty 2010; Liu et al 2012). The work of Davies (1995) on gender and professionalisation in nursing demonstrated that whilst nursing was an integral part of healthcare it was seen as a “lesser” part of the system characterised by providing assistance to doctors. In my interviews the ED nurses articulated both the value of the clinical protocols in helping to standardise care to the seriously injured patient and the way they serviced to keep nurses in a defined (subordinate) place within the major trauma team.

The doctors’ place in the hierarchy was secured by the acknowledgement of their specialist technical skill areas. I noted that some nurses made efforts to exert some control and autonomy via other areas of knowledge, and indeed experienced nurses did have control over other parts of the work within ‘resus’. Such nurses often had superior knowledge of department and hospital processes and this in turn gave them a degree of power, particularly over the junior doctors who worked in the MTC for short periods of time, usually months, until they moved on to the next stage of their training. I observed that nurses would take control of the organisation of non-MTC work in the resus room and orchestrate patient movements through the area, assuming the role of ‘gatekeepers’. Doctors in turn acknowledge this by asking permission of the nurses in resus before proceeding with their work. For the major trauma work they were seen to default more readily to taking advice from the ‘trauma consultant’.

This ability of nurses to exert power over less experienced doctors by maintaining influence in the control of work is described by Allen (1997; 2000) as ‘jurisdictional control’. This builds on the earlier work of Abbott (1988) on how boundaries act as a way for professional groups to gain control over spheres of knowledge. Hughes (1988) also remarked on this permanence of nurses in post is in contrast to the medical professions’ rotational cycles and how this can augment their influence over doctors. Ironically, in the context of this MTC, one of the areas of detailed procedural knowledge that the ED nurses had acquired during their ‘trauma training’

and for which they became a reliable source of knowledge, was the very MTC clinical protocols that served to restrict and demote their own role.

This rigidity in the accorded roles and the lack of opportunity to do more than the tasks they felt they were assigned within the MTC stands in contrast to a number of other areas of healthcare services in which restructuring has been a catalyst for the development of new professional practice opportunities for nurses such as specialist nursing roles (Currie and Crouch 2008; Hoskins 2011), role expansion such as the performance of some operative procedures (Doherty 2009) and increased autonomy (Doherty 2009; Durand et al 2010). Task shifting from higher paid parts of the workforce was often justifiable on financial grounds as well as giving nurses new territory. MTCs, however, have been driven by an ambition to improve patient care and outcomes through creating centralised and highly technical specialist medical services, in which nursing has, up until now, been relegated to a subsidiary role.

It is important to restate that the nurses I observed and interviewed in this study did not only work with major trauma patients but also spent much of their working week in the wider ED. The literature suggests that overall the work of ED nurses is also task-driven (Schrivver et al 2008). This is in part due to a system that is focused on rapid assessment and processing of patients through the department (Bryne and Heyman 1997; Heslop 1998; Nugus and Forero 2011), but there are important differences from the nurses' experience of task orientation in the MTC. In other areas of the emergency department, where practice was not bound to the same degree by clinical protocols, nurses stated they could, and did, take independent decisions on care and treatment. As described by Sbaih, the characteristic work of UK emergency nurses is "doing more than one thing" (Sbaih 1997b), and these ED nurses need to have knowledge of a wide range of 'presentations' and of practicing prioritisation with a high level of autonomy (Crouch 2009; Jarman 2012). Nurses in my study told me they liked "the variety" of working with a diverse patient group. Indeed there is some literature that shows that it is the opportunity within emergency nursing to care for varied clinical conditions, *including* the multiple trauma patient, that is considered a draw to this specialty (Cronin and Cronin 2006; McCann et al 2010; Birks et al 2013).

7.3.2 The consequences of the MTC clinical protocol regimes for nursing care

As already described, the written clinical protocols dictated the pre-defined roles of the major trauma team members. Their pervasive influence could also be observed in the 'talk' around clinical and organisational aspects of patient care. Nurses referred to patients using the terminology of the "pathways" that trauma patients could be 'on' according to the protocol, for instance the descriptor a "straight to CT" patient was used if the patient was following a pathway to quickly transfer them for scanning, or a "Code Red" patient if they were being given treatment for major blood loss.

The emphasis on technical tasks supporting medical interventions also seems to have resulted in a lack of emphasis in that talk on the nursing care that provides psychological support to trauma patients. This finding was unanticipated and it is surprising as there is a body of evidence on the psychological impact of major trauma on patients and on the importance of communication and support to this group of patients (Holbrook and Hoyt 2004; Haagsma et al 2012; von Runden et al 2013).

In the major trauma environment it appears that the technical and task-focused activities take priority over other aspects of nursing care. Individualised nursing care to the patient seemed to be stifled by the way that the trauma care was organised, driven by protocols that nurses felt obliged to observe, and which had the effect of turning patients into 'objects' to be efficiently worked upon. This is not confined to major trauma alone, other studies have also found the nurse-patient relationship in the ED is one where patients feel like objects and that their interactions with nurses are subordinated by the need for efficiency and protocol driven care (Nyström et al 2003; Wiman and Wikbald 2004). Heslop (1998), in a discursive exploration of nursing work within an Australian ED, found the focus for emergency nurses similarly centred on the biomedical and organisational discourse of work. But it seems to be the case that the clinical protocols that support service effectiveness in major trauma also serve to reinforce formulaic practices and a lack of emphasis on the psychological needs of the patient. This issue is returned to in the recommendations for policy and practice in the final chapter.

7.4 Chapter summary

This chapter has returned to the original study questions and in responding to these has highlighted and discussed the effects of the high status and prestige that surrounds major work and on nursing work stemming from a major trauma team bound by clinical protocols. . This study builds on existing literature on 'boundary work' concerned with how professional boundaries are negotiated in practice. It shows how the application of strict clinical protocols in this context minimises the opportunity for nurses to move across such boundaries. Thus major trauma work is an outwardly exciting but ultimately unsatisfying aspect of the ED nurses' work. More importantly, the collectively accepted notion of the 'exciting', 'decent patient' as the one with serious and technically demanding complex injuries that can only be catered for by a "centre of excellence", risks undermining the value placed on the care of other patients in the ED.

The final chapter of this thesis draws out the conclusions, implications and recommendations suggested by the findings of this study.

Chapter 8 Conclusions and recommendations

8.1 Introduction

This is the first UK study to focus on the role and perceptions of nurses working in a Major Trauma Centre since the reconfiguration of services to create such units took place in London in 2010. Since commencement of this study the reorganisation of major trauma services across England has been implemented, culminating in a total of 22 such specialist centres in 2012. This final chapter concludes this thesis by considering what this study has revealed and what its limitations have been. This thesis closes with an outline of implications for practice and makes specific recommendations for future research.

As a senior nurse with a background in trauma care I had anticipated that the nurses would be enthusiastic in the main about the MTC and its opportunities, as it is a feeling I have myself and have observed in others during practice. My assumptions were very quickly challenged when the nurses I interviewed sometimes described their role in trauma as “formulaic” and “boring”.

The analysis revealed four interrelated themes that illustrate the organisational, professional and personal levels on which the trauma work is constructed for nurses in the ED. The first revealed the *increase in the status and profile* of the ED that arose from MTC designation. The second discussed *the “draw” of trauma*, the third detailing *the ‘decent’ trauma patient*, examining the hierarchy of interest within trauma work. The final theme explored the ED nurses’ accounts of their *task-orientated roles* in looking after trauma patients.

I found the nurses’ experiences and perceptions were influenced by the organisational expectations of the priority given to major trauma patients. Despite being described by nurses as “the daily diet of trauma”, the hospital data show that major trauma work accounts for a very small part of the work of the ED, and this was borne out by the nurses during discussion, it had a larger impact on the way the ED was organised than that exercised by any other patient type. While arguably the immediacy and potential seriousness of these patients’ condition could justify this emphasis, the strict requirements, set out in protocols meant it was set apart from the other ED work. During “trauma calls”, the manifestation of one of the protocols, the rest of the work in resus was sporadically interrupted by this sometimes disruptive event.

The study provides an extensive description of the ED nurses' work situation within a newly reconfigured MTC. Similarities were found to the existing body of work regarding ED and trauma practice in reinforcing the popular status of major trauma patients and the preference for this patient type in the ED. This was in part due to the emphasis on technical expertise in these patients that emphasised theoretical knowledge over 'caring' which was not highly valued. Of significance is the finding that this preference for major trauma work manifested itself in the relative lack of clinical emphasis the ED showed toward non-trauma patients that has not previously been identified.

The function of the role of the trauma team has been analysed in previous work but this study did not find the same level of cross professional working between members of the trauma team described in other studies. Nurses stated and were observed to maintain adherence to their role defined in protocol. Nurses' perceptions of their role within the trauma team has been overlooked in the literature on team working in trauma (Wolf et al 2003; Berlin and Carlström 2008; Sarcevic et al 2011), with studies focusing on leadership and team working rather than what nurses actually do. In this study their enthusiasm for major trauma was juxtaposed against their role which they perceived to be lacking in value and formulaic. This contrasts with the literature on the ED nursing role which identifies this type of nursing as dynamic and offering a high level of autonomy (Endacott 2002; Jarman 2012).

8.2 Strengths and limitations of the study

This study used a qualitative exploratory approach to describe and understand the dynamic and individual experiences of nurses working in a reconfigured MTC. The strength of this approach was in allowing for in-depth exploration of a topic area where there has been a paucity of previous research (Silverman 2010; Punch 2014). Despite this there are some limitations within the methodology and conduct of the study that require acknowledgement.

The first relates to my background. My role as researcher was enhanced by my understanding of the setting in enabling me to have an awareness of the fundamentals of the ED and how its work was organised. There is a risk that prior knowledge leads to a level of familiarity that prevents the researcher from seeing routine behaviours as significant (Bonner and Tolhurst 2002; Cudmore and Sondermeyer 2007), but after the first visit I found my expertise an

advantage in that I was able to focus on the non-clinical aspects of the work surrounding trauma rather than being dazzled by the 'spectacle' of the trauma call event. Whilst I did not disclose the full extent of my background to potential interviewees (I said I was a research student with some experience of emergency nursing), as the fieldwork progressed I found that sharing experiences of my practice in ED nursing led to the development of a more honest relationship with participants. I felt I was viewed as having a neutral position not associated with the management structure for the most part. This meant nurses would often talk about personal issues and their hopes for their careers during the course of the interview, and sometimes at length afterwards. I felt a small group of the nurse interviewees saw me as being in a more senior position than them, not because they were aware of my clinical role but perhaps because I was considerably older than some of them. This led some to seek reassurance they had 'got it right' at the end of the interview and also to ask advice on career or training opportunities they were considering.

The limitations associated with the sampling technique, and the potential for bias are acknowledged. The nurses whose views were gained in this study represent nearly a quarter (24%; 31 of 130) of the overall nursing workforce within one MTC and it is with caution that these views should be interpreted. There was likely to be bias in the selection of nurses who were interviewed as they were those who expressed an interest in trauma as part of coming forward to participate. Despite attempts to engage with those I encountered who made an occasional comment about not "liking" major trauma who I therefore perceived to have a less positive view they were not forthcoming. However I felt there was a balance to the findings in spite of this potential for bias, with nurses reflecting a view of major trauma work that they found both "exciting" and "boring". What is represented here was probably participants who were the voice of those nurses for whom major trauma work was an attraction. What is interesting therefore is the tension their accounts reveal between the reflected glory of a medical super-specialty and the mundane nature of the nurses' role within it.

In spite of the use of *focused ethnography*, an approach used to limit the scope to a specific topic, the fieldwork produced a breadth of themes in the material. This limited the depth of inquiry that I made into the multiple aspects found. Instead I made a 'principled choice' based on the aim of the study, supported by peer and supervisor review, as to the elements I explored

in greatest detail. Despite these limitations this study offers an analysis of the new work situation of nurses within recently established Major Trauma Centres. While there are parallels in the practices and organisation of work that are shown within other studies of ED work this study reveals that not all of the nursing work in the ED is valued in the same way. Boundaries placed on the nurses' role as a consequence of medically-dominated protocol lead to ultimately unsatisfying aspects of the work situation for nurses.

8.3 Implications for policy and practice

This study was needed to understand how reconfiguration of trauma services and creation of MTCs has impacted on the working practices within this evolving model of care. It contributes to the literature on the effects on the healthcare workforce of service change and specialisation. It provides further evidence that the impact of restructuring goes beyond the existing focus on patient and clinical outcomes, supporting the need to involve those delivering care on the evaluation of service restructuring (Patton 1990b; Finfgeld 2003; McWilliam and Ward-Griffin 2006).

It is important to view the findings of this study in light of the newness of the reconfiguration of trauma work in the MTC and the evolving organisation of trauma services. This study was undertaken in an MTC that had been operating in this capacity for nearly two years at the commencement of the fieldwork and since this time this same model of care has been introduced across England. The study findings have four main implications for the practice setting of emergency care.

8.3.1 Implications for the Emergency Department

Firstly, the demands and specific requirements of being an MTC are centred in the ED around the work of the specialist consultant-led trauma team, an additional resource as a consequence of designation as an MTC. This has led to a focus on this type of work within the department that in some cases is justified due to the seriousness of the patient condition but leads to a disparity in the development of practices around trauma compared with the other work. This disparity was reported by the nurses as a lack of urgency in the processes surrounding the non-trauma work and also in the disproportionate interest they felt was shown toward major trauma. Nurses in this study did not report detrimental effects to the patient as a result of this inequality

but felt that it was more difficult to gain clinical engagement from the specialist doctors for patients with conditions other than major trauma. This lack of engagement was reported also in those patients seen as 'low-level trauma'. Nurses categorised the majority of the departments work as the non-trauma "bread and butter" patients. Consideration needs to be given by those working in the MTC to the effect the focus of resource and attention toward major trauma has on the low status work in resus and in particular the effect on patients. This is not only in regard to the clinical outcome measures but also to the experiences of patients in this area.

8.3.2 Implications for the discipline of emergency nursing

The findings of this study are supported by some previous work that relates to the organisation and culture of emergency nursing practice as a highly charged environment focused on the provision of urgent physical care (Sbaih 1997b; Heslop 1998; Annandale et al 1999). Emergency nurses are the most constantly represented member within the multi-disciplinary trauma team and as such have a unique knowledge of the processes and practices surrounding these patients. The nurses described a mode of work and model of care as a result of MTC designation that is dominated by medical staff, in contrast to how their work is organised in the rest of the department where they are able to exercise a degree of control and autonomy. This mode of work in the MTC fragmented the care of the patient into a series of tasks and consigned nurses to support functions for doctors' roles, a situation which, despite the drama of the event they ultimately found unsatisfying. Poor or reduced job satisfaction is an important determinant of intention to remain in a job and understanding how this is influenced by changes to the nurses work situation is important in the retention of skilled and experienced staff important in maintaining services.

Despite the nursing role being viewed in this way there is still a clear attraction, particularly amongst junior nurses, toward caring for this type of patient based on the 'excitement' of major trauma as a condition. Promotion of effective teamwork relies on the ability to integrate the expertise of the different members of the team in an effective way. Whilst there was evidence that the structure and co-ordination of the trauma team provided an efficient way of managing the trauma patient, incorporating other aspects of the nursing expertise (beyond the procedural knowledge) may enhance the overall team effectiveness. It would seem apparent that is would

increase the role satisfaction amongst nurses with experience of autonomy in other areas of the department. There may therefore a need to consider how nurses find a unique position within the trauma team that provides a level of value in order that the interest of those nurses with clinical experience is sustained.

8.3.3 Implications for recruitment and retention of nurses

The impact of reconfiguration of major trauma services has led to the development of both Major Trauma Centres and Trauma Units. Trauma Units do not receive severely injured patients and therefore are depleted of the major trauma work that was found to be great attraction to the nurses in this study. ED nursing has previously been characterised by caring for the full spectrum of age, disease and injury states but the development of the major trauma system has removed a large (and popular) component of the emergency nursing role from the TUs. Some of the nurses in this study did not contemplate ever working in a TU setting due to the perceived lack of opportunities to look after severely injured patients. Prior to the development of MTCs the range of work across all EDs was similar, and whilst the non-trauma work was still seen as the main component of the role, nurses working in an MTC will be exposed to major trauma in a way that those in TUs will not. Major trauma work reflects the ideal work for many nurses in the ED, and whilst nurses in this study liked the variety of the rest of the ED work in addition to major trauma, the impact of removing this attractive patient group from some EDs is likely to change the culture of emergency nursing in the future. In light of concerns over nursing attrition a large body of evidence has developed highlighting the significance of organisational factors such as work environment on recruitment and retention of nurses. The impact of removing the 'high status' major trauma work from some EDs needs careful consideration to ensure that TUs remain an attractive proposition for emergency nurses. Additionally, the reduction in exposure to the severely injured patient in the TU will affect the competence and confidence of those working in this setting and may ultimately lead to two distinct types of ED nurse - those categorised as being able to work in an MTC and those who are not. This will have implications not only for emergency nursing practice but for the career mobility of this sector of nursing.

8.3.4 Implications for major trauma patient care

This study shows that the reconfiguration of trauma services has led to a unique work situation within the MTC built around the severely injured patient. This reinforces the established tenet of emergency nursing favouring technical aspects of the role over psychological care. Given the body of evidence surrounding the psychological distress to the patient as a result of being involved in a traumatic event it is imperative that nurses are minded to consider their role in instigating caring encounters to fulfil the patients' requirement for comfort in what is a challenging situation. Whilst the technical components of the nursing role in 'resus' are essential to monitoring and treatment of patients this must be balanced with the demands of attending to patients care and psychological needs.

8.4 Further research

This study has provided some insights into the work situation of emergency nurses in the MTC but the impact of reconfiguration of major trauma services to create specialist centres goes beyond the work of those in the MTC. This study has highlighted some of the implications for patient care brought about by the mode of working in the MTC and there is justification for further research in the areas of patient experience and the implications for non-trauma patients. The main contribution of this study is to the area of workforce research and there are several aspects of this that warrant further investigation:

1. The role of the ED nursing in provision of care to major trauma patients

There was a lack of emphasis placed on the caring components of the ED nurses role in trauma in favour of technical functions. In light of the evidence on the significant psychological effects of major trauma on patients and the potential mitigating effects of early support further work is required to establish the place of caring within the protocol-driven environment of the MTC. This would provide support for the 'Compassion in Practice' agenda (Department of Health 2012) aimed at embedding compassionate and caring values throughout nursing practice in the NHS.

2. Exploration of role of the nurse in the Trauma Unit.

Several nurses in this study alluded to the differences in their experiences of the nursing role in the MTC and in TUs where they had previously worked. Whilst TUs do not receive the most

severely injured patients some with potentially significant injuries still arrive due to difficulties in the pre-hospital assessment. The overriding view expressed was that trauma care in the TU was a model less dominated by medical specialists as there was no requirement for them to have a senior doctor leading the trauma team and little emphasis on trauma in the ED overall. This left more opportunity for the nurses to move out of the task-orientated role within the trauma team and to participate more fully in the decisions of the team.

This study did not explore the nurses' role within the TU specifically and further exploration is warranted to provide a more comprehensive picture of the nursing role within the developing trauma system in England.

3. Role mobility across emergency departments

The strategy of reconfiguring trauma services has reduced the exposure of nurses to the seriously injured patient in most EDs, and if the majority of departments are no longer treating the seriously injured there is a risk that they will be seen as a less attractive career option for nurses who may have previously found this type of work appealing. The attractiveness of major trauma work to the nurses in this study was evident and in particular to the sub-group identified as "traumaholics". It is possible that those hospitals who continue to treat the most seriously injured patients will be the 'preferred option' for those nurses wishing to work in emergency care.

At a time when the demand for nurses is increasing many areas are experiencing difficulties in recruitment there is a challenge in maintaining sufficient numbers of experienced emergency nurses to provide specialist care (Wimslow et al 2009). There is a need to determine the impact of the centralisation of a core component of the emergency nursing specialty on the career intentions of this group of nurses in order to inform workforce strategy and recruitment and retention initiatives.

8.5 Chapter summary

The development of Major Trauma Centres is an innovation in the NHS in England that is expected to increase survival rates for victims of major accidents. These expensive specialist services are accorded high status by healthcare professions, the media and the wider

community. Nurses are central to the delivery of these specialist services and to the ED in which they are embedded. This study has used focused ethnography to explore nurses' perceptions and experiences of working in a Major Trauma Centre. Findings show the value placed on the high profile major trauma patient by the hospital, the ED and the nurses pervades the culture of the department. Consequently nurses are attracted by the excitement and status of major trauma work but find the fragmentation of tasks determined by the MTC protocols undermines their ability to practice nursing in a way they are able in the rest of the department through autonomous decision making and control of their work. The nurses adopt the implicit hierarchy of interesting and less interesting cases that is generated by the MTC specialist emphasis and employ it in their casual workplace talk of 'decent' (severely injured but ultimately rare) trauma patients. However many nurses were also concerned about how this emphasis may leads to an undervaluing of care for patients with less dramatic conditions.

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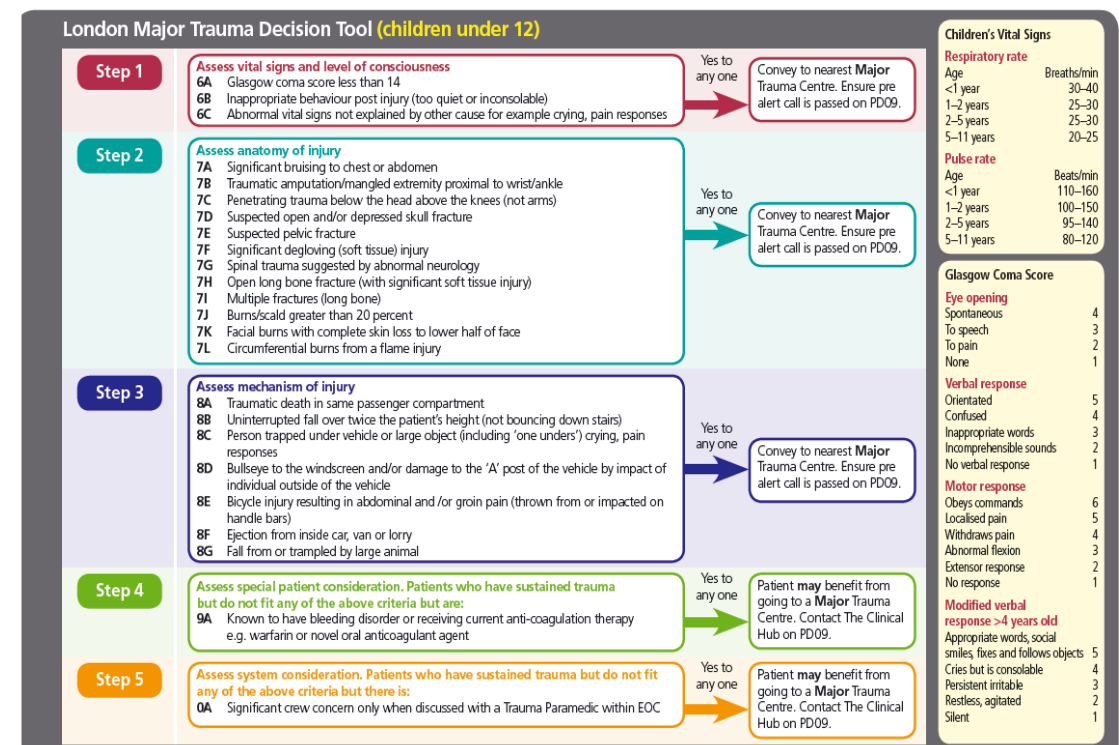
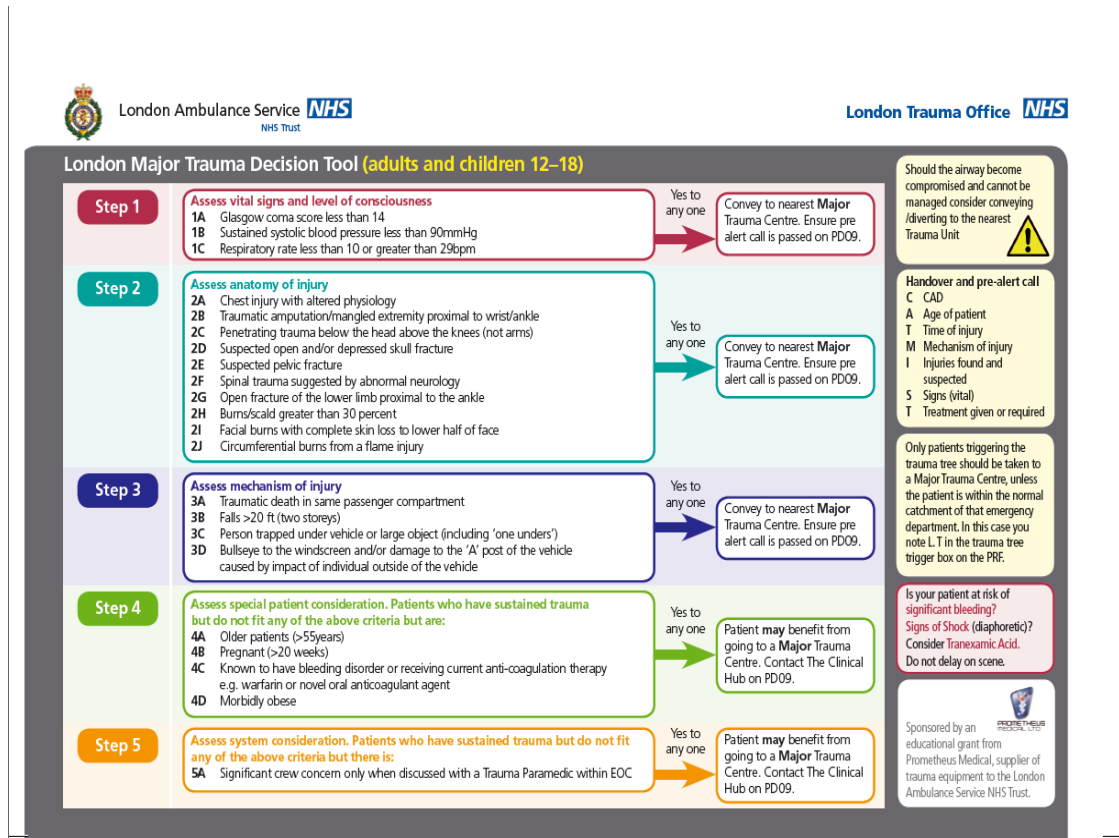
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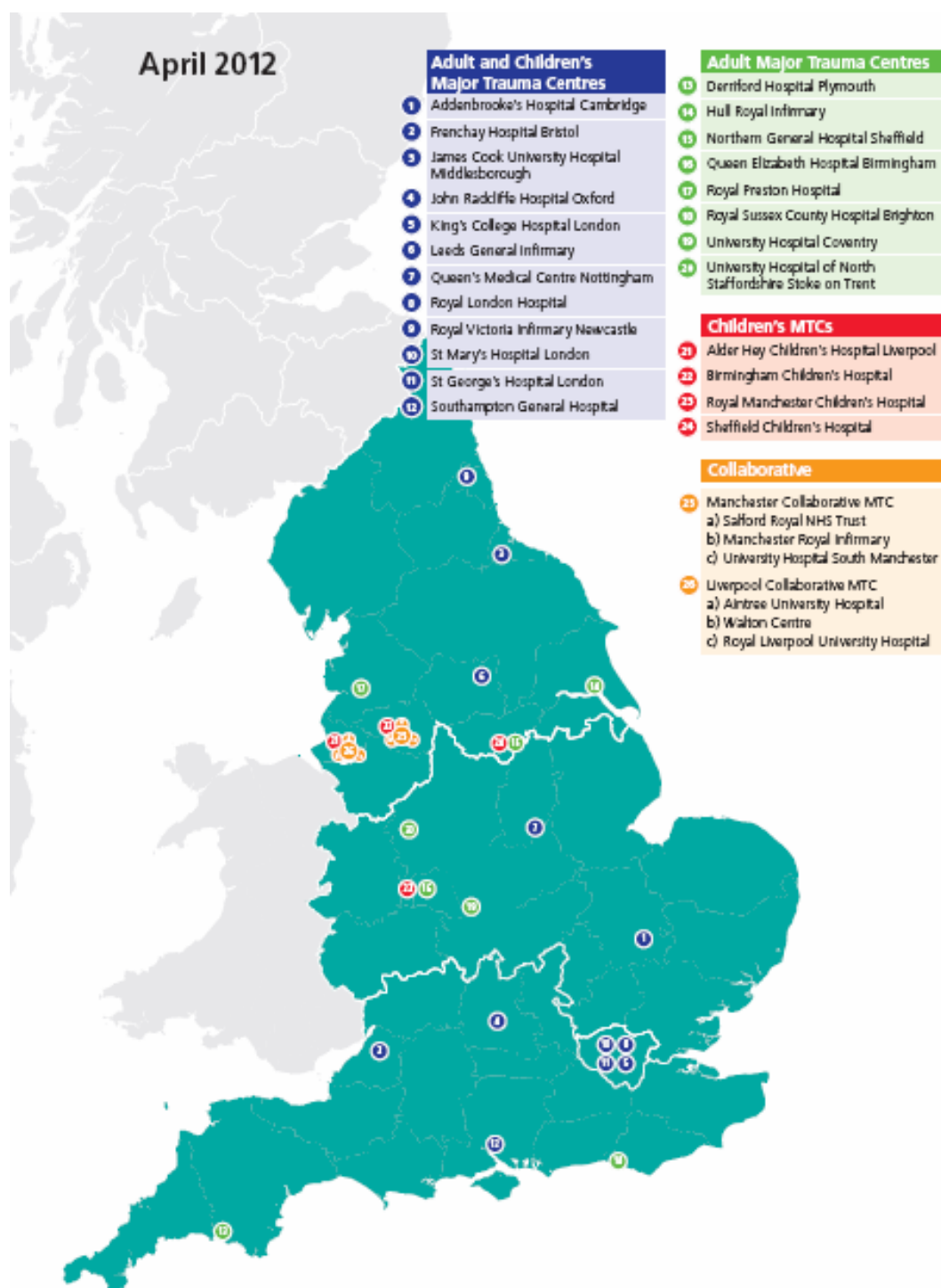
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Appendices

Appendix 1: Major Trauma Triage decision tool



Appendix 2: Map of Major Trauma Centres in England



(Department of Health 2013)

Appendix 3: Literature selection: effects of restructuring on nurses

Identification

No. of records identified through database search (including duplicate removal) = 408

Screening

No. of records screened = 408

No. of records excluded = 386

Eligibility

No. of full-text articles assessed for eligibility = 122

No. of full text articles excluded = 87

Included

No. of studies included = 36

No. of additional records identified through other sources = 9

Total no. of studies included = 46

Appendix 4: Literature selection: 'high status'

Identification

No. of records identified through database search (including duplicate removal) = 1265

Screening

No. of records screened = 1265

No. of records excluded = 1171

Eligibility

No. of full-text articles assessed for eligibility = 94

No. of full text articles excluded = 72

Included

No. of studies included = 22

No. of additional records identified through other sources 10

Total no. of studies included = 32

Nurses wanted to take part in research project



We want to know what it is like to be a nurse in a major trauma centre, and what the service reorganisation has meant for you

If you would like to be involved you will be asked to take part in an interview with the researcher lasting about an hour.

Contact Details

If you are interested in participating or would like any further information then feel free to contact us:-

Researcher: Heather Jarman

Email: heather.jarman@nhs.net

Tel:- 020 8725 1999 (direct line & voicemail)



REC Reference Number: 11/LO/1766

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Appendix 6: Example of expanded fieldnotes and analytic memos

21/5/12. Day 5
Trauma notices etc all over resus; more than for other conditions
Informal interviews in coffee room, approached ~~to~~ BS to explain research.
Agreed to be interview/contact.
Points from informal interview

- scared when first saw trauma; thought was on TV
- popular (trauma) with most A+E nurses
- feels heart racing when trauma patient coming in
- interesting seeing 'it' all come together, everyone in team getting on with it
- not like other patient groups (contrast to process)

Expanded notes	Description of areas (space, actors, mood and physical description)	Personal responses to facts/field (feelings)	Questions about behaviour for future investigation / other questions Memos
A group of three nurses discussing the rota, wearing B5 uniform. Moved on to talk about the business of majors and not being able to get all the work done properly, all of them expressed the same sentiment. Apart from these nurses no others communicating except to make general comments when going back to work "see you down there"; "time to go". Two of these junior nurses were discussing a trauma patient they had been involved with and seemed to be excited about the events surrounding the patient. I thought they might be interested in being interviewed. Conversation developed as I explained my research. Both of them expressed that they liked looking after trauma patients as they found them interesting and exciting but that trauma calls had caused them anxiety when they had first started because there was potentially so much to do. Both nurses had been in the department for less than six months. One nurse stated she "loved trauma now" but was scared when she first was involved in a trauma and felt like she was "on TV as that's all you see on the telly" as it was so quick and exciting and there was	Located in resus initially but everyone active with care so moved to coffee room (as break time). 8 nurses, most watching television or reading magazines.	Use of the work "love" by both nurses - interesting response to this group of patients. Animation of junior nurses when talking about trauma	Has MTC or repeated exposure to trauma routinized care of trauma patients to a rehearsed clinical process? UNUSUAL BECOMING USUAL (my phrase). Junior nurse perceptions of the trauma patients -? influence of media and representations of this as an exciting area of practice. ?reason to choose to work in the ED as seen as exciting ?how does this link with occupational socialisation and the anticipatory socialisation literature

Expanded notes	Description of areas (space, actors, mood and physical description)	Personal responses to facts/field (feelings)	Questions about behaviour for future investigation / other questions Memos
blood. The other nurse then said that trauma was a "really good thing to do" and that most people love it and that it was what she had come to work in A&E for. They were both animated when talking about their experiences with trauma "still feels heart racing when trauma patient coming in". They offered some description of particular trauma patient that they found more exciting than others which seemed largely to reflect patients where there was visible blood but that you "didn't get that many of those". Other trauma patients, taken as those with less severe injuries and no visible blood(!) were viewed as a bit boring as there was not much to do. When asked about other work in the department both acknowledged that they liked the variety but that they didn't find it as interesting.			

Appendix 7: Participant information sheet and consent form

INFORMATION SHEET FOR PARTICIPANTS

REC Reference Number: NRES Committee London – Stanmore 11/LO/1766

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

A qualitative study of emergency nurses' experiences of working in a reconfigured major trauma system



We would like to invite you to participate in this doctoral research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information.

Aim of the study

Major trauma care in the UK is an evolving specialty. The current research in major trauma focuses on survival outcomes and clinical interventions. There is limited investigation of the impact that changes to the organisation of trauma services has on the workforce. The aim of this study is to explore the experiences of nursing staff with regard to the development of major trauma centres, in particular the impact upon their own work situation and practice.

Why have I been invited to take part?

We are interested in the experiences of emergency nurses working in a Major Trauma Centre to help develop better understanding of how restructured services affect the workforce.

What will happen if I agree to take part?

If you decide to take part you will be asked to sign a consent form. You will take part in an interview with the researcher at a suitable place and time of your choosing, this could be during work hours at a quiet time. The Heads of Nursing for the ED have given permission for the study to take place and have granted the researcher access to the department. Interviews will last about an hour and will be digitally recorded and then transcribed into a written document that will be anonymised. The set of interviews will then be analysed by the researcher.

What are the possible disadvantages or risks of taking part?

We do not think that there are any risks to you taking part in this study. However, if you do not wish to answer any of the questions during the interview you are not required to do so.

What are the possible benefits of taking part?

We do not anticipate that there are any direct benefits to you, but we hope that our findings will assist in developing a greater understanding of the impact on the workforce of service changes.

Will my taking part in this study be kept confidential?

All information that is collected about you during the course of the research will be kept strictly confidential. The only contact information required will be either a mobile telephone number or email address. The interview will be transcribed and the original digital recording transferred onto a password protected computer. Your name or any contact details will not be recorded on the interview transcripts. Direct quotations may be used within the thesis and other reports but these will not be attributed to individuals in a way that they can be identified.

We will follow ethical and legal practice and all information about you will be kept strictly confidential. The academic supervisors for this project will have access to the anonymised transcripts of your interview, but the researcher will be only person to have access to the original recordings of the interview, your consent form and

any of your contact details. All names/identifying details will be removed from the interviews and replaced with a code. Any contact details will be stored separately. Kings College London requires recorded and written materials from the research are kept until completion of the researchers study award.

What will happen to the results of the study?

The results of the study will be published as part of a doctoral thesis. The material will be presented at academic and professional conferences and in academic journals.

Who has reviewed the study?

The study has been reviewed by an Ethics Committee. The study will also be reviewed regularly by the academic supervisors of the researcher.

Contact for further information:

For further information about this study please contact:

Researcher	Research supervisor (Chief Investigator)
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CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.



Title of Study: A qualitative study of emergency nurses' experiences of working in a reconfigured major trauma system

REC Ref: NRES Committee London – Stanmore 11/LO/1766

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

Please tick
or initial

- I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up until it is transcribed for use in the final report ☐
- I consent to my interview being audio-recorded. ☐
- I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the Data Protection Act 1998. ☐
- I understand that the findings of the study may be published in a report and that if I wish I may be sent a copy. It has been explained that measures will be taken to protect anonymity so that it would not be possible to identify me in any publication of results. ☐

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed

Date

Investigator's Statement:

I _____

Confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

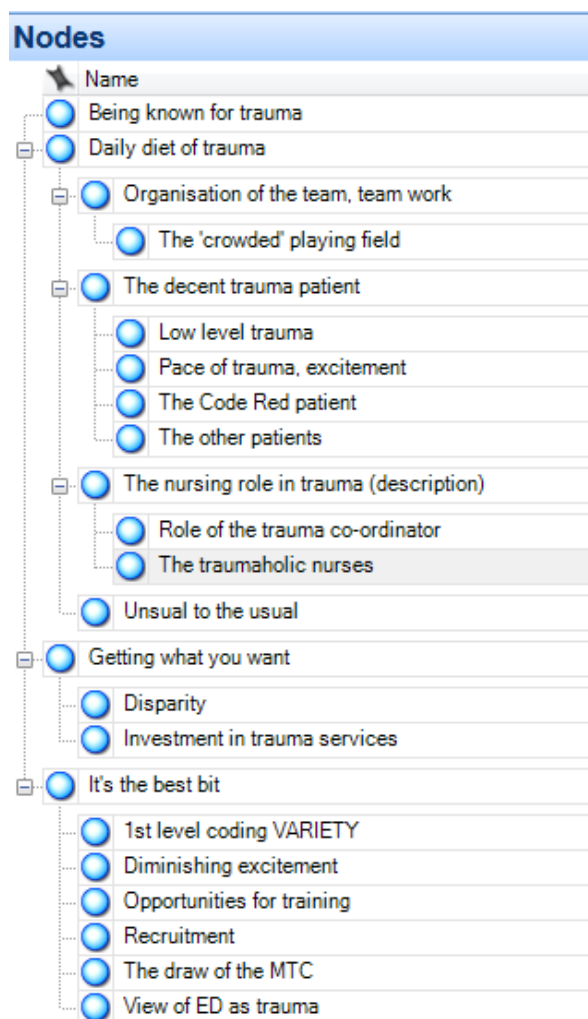
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Date

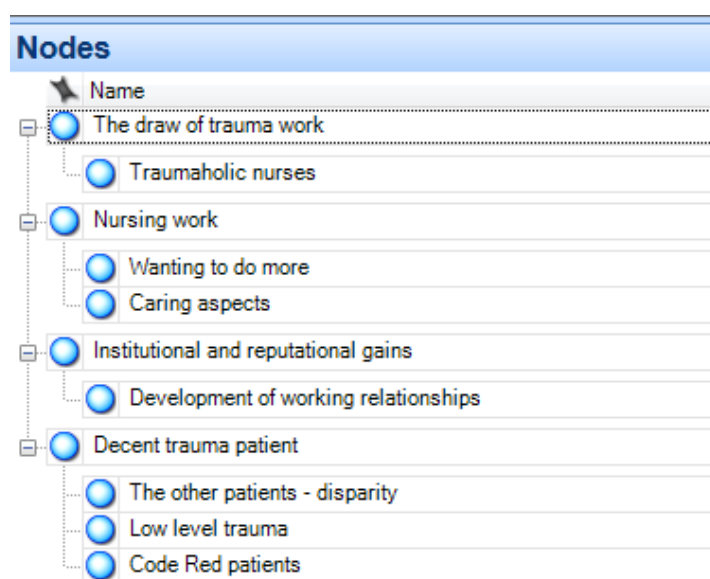
Appendix 8: Interview topic guide

Topic	Main question	Prompt questions
Introduction and background of participant	Can you start by telling me about yourself and your role	How long have you worked here? What was it that made you come to work here?
Overall experience of the ED	What's it like working here?	Why did you want to work in the ED?
Nursing role in the trauma setting	Can you tell me what would happen in a trauma call here and what your role in that would be?	Would that be different to what you would do to non-trauma patients? What preparation have you had to look after trauma patients?
Impact of MTC status on nursing role	What effect do you think the changes to Major trauma services have had on nursing in the department? On you own job role?	What it is like to work as a nurse in the ED? In a major trauma centre? Have these changes directly affected your work practices? In what way? What preparation or training have you had in major trauma care? Are there any effects on the nature of your work (in ED) since becoming an MTC? Benefits/concerns
Impact of MTC status on department	What effect do you think the changes to Major trauma services have had in the department?	What do you think the effect of becoming/being an MTC has been on the rest of the department? (what seems positive, what hasn't been)
Impact of MTC status on wider organisation	Are there affects you see in being a major trauma centre for the hospital?	Benefits of working in an MTC
	Closing comments	Anything else you would like to add about working here?

Appendix 9: Initial and final NVivo nodes (themes)

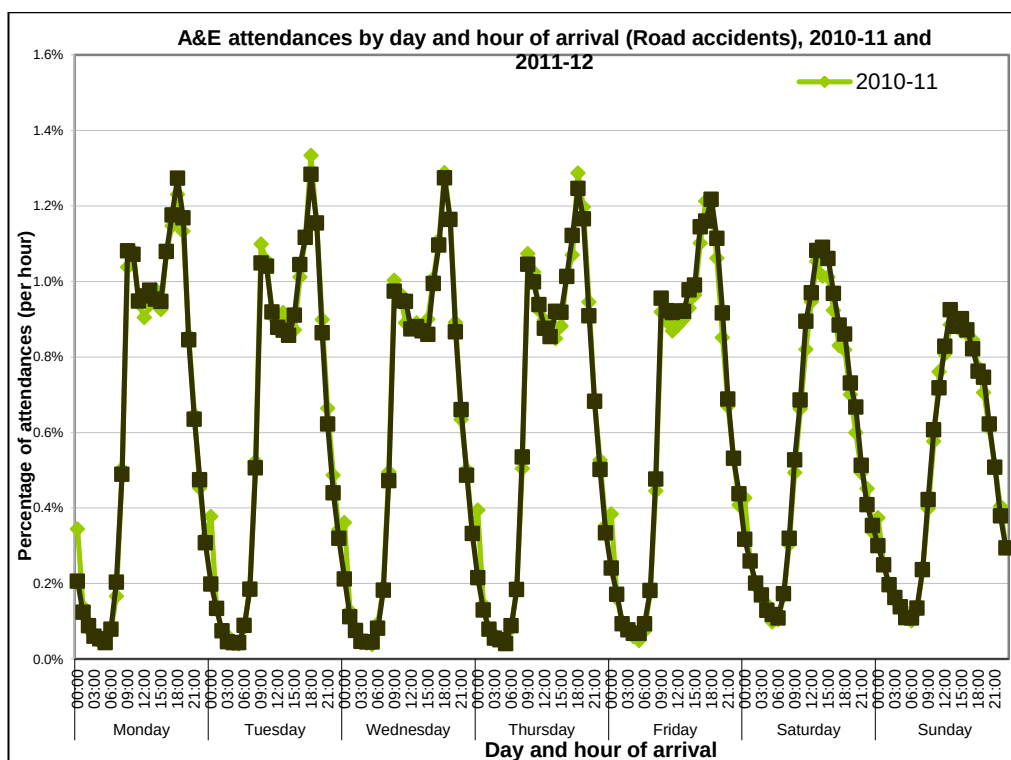
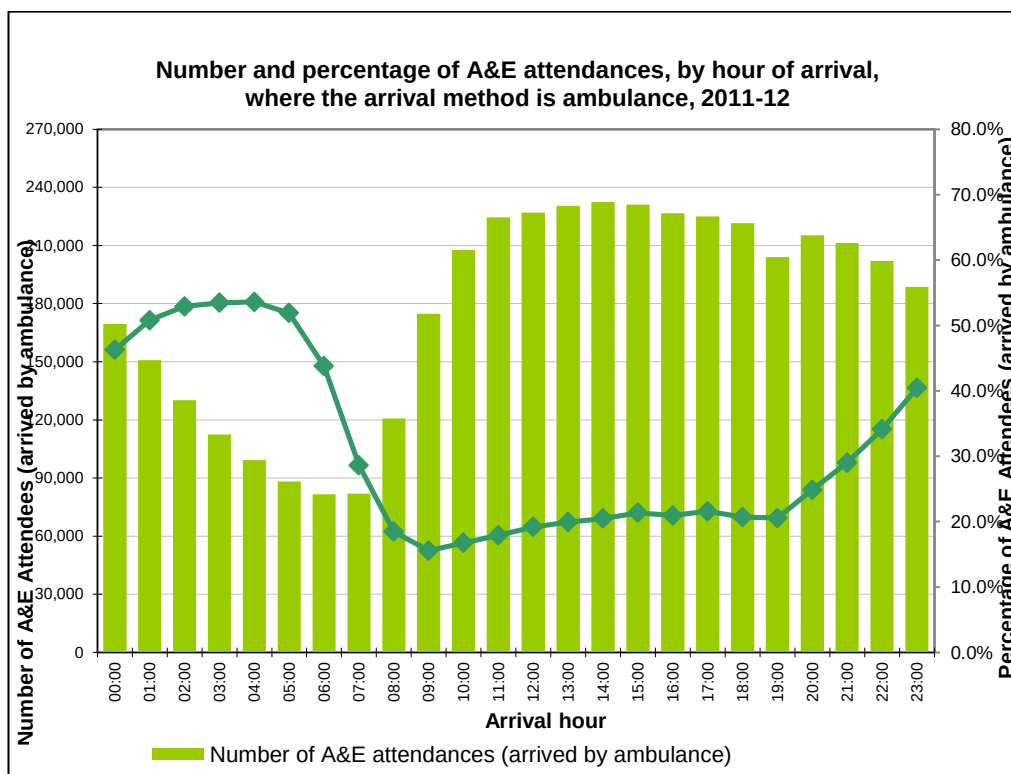


Initial themes



Final themes

Appendix 10: Emergency Department attendance patterns 2011-12



(The Health and Social Care Information Centre 2013)

Appendix 11: Roles of the hospital 'trauma team'

Trauma team role	Responsibilities
Team Leader MTC Consultant	- Allocates team roles in preparation phase - Performs '5-second round' - Takes handover from LAS - Assimilates and disseminates information from team members - Prioritises treatments and investigations - Liaises with other specialties - Determines disposal of patient - Signs off trauma documentation - Co-ordinates who talks to relatives - Liaises with Trauma Units re: secondary transfer - Liaises with LAS Clinical Co-ordination desk
Nurse Leader Band 7 Sister	- Allocates roles to nursing staff - Documents pre-hospital information, primary survey findings - Liaises with CSM/trauma ward/theatre co-ordinator - Liaises with relatives - Liaises with police - Liaises with coroner / transplant co-ordinator
Airway Doctor Anaesthetic Registrar	- Assesses and maintains airway - Maintains c-spine protection - Maintains "talking role" with patient - Assesses 'D' – GCS/pupils/lateralising neurology - Documents 'AMPLE' history - Leads and performs RSI - Identifies need for advanced airway and liaises appropriately - Ensures adequate analgesia - Advanced vascular access - Advanced monitoring (if required) - Transfers patient if intubated/unstable
Airway nurse Band 6 Nurse	- Assumes "talking role" with patient - Maintains c-spine protection - Assists with RSI - Assists with analgesia/anaesthesia - Prepares for advanced vascular access - Transfers patient to CT/theatre/ward
Breathing doctor ED Reg	- Assess breathing - Needle decompression/ICD insertion - Assists with RSI - eFAST scan - Assumes role of co-doctor if necessary - Assists Team Leader in calling other specialities - Ensures data entered into trauma database
Breathing nurse Band 5/6	- Removes all clothing - Attaches monitoring, and books patient to monitor - Records observations - Prepares for chest drain/thoracotomy - Assumes role of c-nurse is necessary - Prints monitor data record on discharge
Circulation doctor Surgical Registrar	- Examines abdomen and pelvis - Assesses for signs and source of shock - Stops external bleeding - Co-ordinates splintage of limbs/pelvis

Trauma team role	Responsibilities
	Ensures IV access (check LAS lines) Sends trauma bloods Liaises with blood bank and runs "Code Red" Examines during log roll Catheterises
Circulation nurse Band 5/6	Administration of IV infusions/antibiotics/tetanus Administration of blood products Assists with procedures Assists C doctor with IV lines, trauma bloods
Secondary survey doctor Orthopaedic fellow	Completes top to toe examination Manages limb reduction/splintage Requests further imaging