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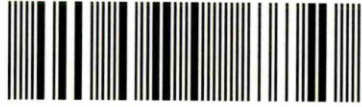
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Staff perceptions of the 'Hospital at Night' in an NHS Hospital

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ABSTRACT

The study explored staff perceptions of 'Hospital at Night (Hospital@Night) following the implementation of the European Work Time Directive (EWTD). The study focused on the professional experiences of inter-professional working and learning. Initially the focus was on junior medical staff but later evolving into exploratory study of senior professionals particularly midwives.

The Purpose of the EWTD was to ensure that patients were treated safely through reduction risk posed by fatigued junior doctors due limited sleep and rest when on duty.

The purpose dichotomised into two goals exploring how compliance risks are managed and how senior professionals support strategy risks associated with Hospital@Night.

The scope of the study included 12 participating professionals from midwifery, nursing, radiography, laboratory science, anaesthesia, and the medical profession.

The objectives were to:

1. Explore the experiences of professionals involved in the Hospital@Night system.
2. Determine how participants describe the systems in place to maintain patient safety.
3. Investigate experience differences and similarities between professional groups.
4. Explore how participants describe their competences in team collaboration.
5. Describe how participants perceive the capability of the H@N system in the Obstetric-Paediatric interface.

Methods

The research tradition adopted was Grounded Theory. The data generation method was the in-depth discursive interview method.

Key findings

The exploratory study made three inter-related contributions to professional learning within the organisation. These were the identification of unique learning needs arising from the Hospital@Night initiative; the value of capturing and using information that arises from practice; and the recognition of opportunities to use incidents in the night for learning.

Implications

The study shows how exploratory studies are best suited for investigating services after a change initiative. The study shows how the strategies used to address EWTD have generated crises at organisational, discipline, group and personal levels. Professional engagement could be improved through participation in various inter-professional learning activities.

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TABLE OF CONTENTS

Introduction

1. Introduction.....	1
1.2 The problem.....	1
1.3 Setting of the research.....	2
1.4 The research question.....	3
1.5 The research.....	4
1.6 The nature of the methodology.	4
1.6.1 Grounded theory	5
1.6.2 Significance of the study.....	5
1.7 Role of the researcher.....	6
1.8 Researcher assumptions.....	6
1.9 Organisation of the thesis.....	7

Chapter 2:

Context

2 Introduction.....	10
----------------------------	-----------

2.1 Background.....	12
2.2 The setting.....	16
2.3 Factors influencing policy.....	18
2.3.1 International factors: Reduction in junior doctor hours.....	18
2.3.2 To err is human.....	21
2.3.3 Crossing the quality chasm.....	24
2.3.4 Structural factors.....	26
2.3.5 Society.....	26
2.3.6 The government of the day.....	29
2.3.7 The NHS and its employees.....	29
2.3.8 The culture.....	31
2.3.9 Collaborative culture.....	32
2.4 The situation of frontline professionals in the Obstetric-Paediatric interface.....	34
2.4.1 Extended roles.....	38
2.5 Conclusion.....	40

Chapter 3

Methodology

3 Introduction.....	43
3.1 Epistemological and methodological approach.....	44

3.2 Method.....	46
3.2.1 Data Generation – the in-depth discursive interviews.....	47
3.2.2 Interview procedure.....	52
3.2.3 Question development.....	55
3.2.4 Analysis.....	56
3.2.4.1 Initial analysis and memoing.....	57
3.2.4.2 More focused memo-writing.....	59
3.2.4.3 Diagrams.....	60
3.2.4.4 Theory building.....	61
3.3 A purposive sample.....	62
3.3.1 Locating the convenient sample.....	64
3.3.2 Purposive sampling during the research.....	65
3.3.3 Theoretical sampling.....	66
3.4 Collecting and organising data.....	67
3.4.1 Olympus DS 50 Digital Voice Recorder.....	68
3.4.2 Transcribing service.....	68
3.4.3 HyperResearch / HyperTranscriber.....	68
3.4.4 Dragon naturally speaking.....	69

3.5 Ethics.....	69
3.5.1 Taking responsibility.....	70
3.5.2 Becoming accountable.....	71
3.5.3 Giving credit to participants while protecting identities.....	71
3.5.4 Safeguarding reputations.....	72
3.5.5 Making cultural sensitivity part of the craft.....	72
3.5.6 Informed consent	74
3.5.7 Informed refusal.....	74
3.5.8 Handling safety issues for patients.....	76
3.6 Conclusion	76

Findings

The Introduction to findings.....	79
--	-----------

Chapter 4

‘Being scared in the night’

4 Introduction.....	82
4.1 Being alone.....	84
4.2 Personal insecurity.....	88
4.3 Sensing Chaos.....	94

4.4 Feeling unrewarded.....	99
4.5 Seeing Bogeymen.....	103
4.6 Sensing risk.....	107
4.7 Conclusion.....	115

Chapter 5

'Acquiring Night Vision'

5 Introduction.....	117
5.1 Being with mothers.....	118
5.2 Shedding a light.....	123
5.3 Working with others.....	128
5.4 Conclusion.....	135

Chapter 6

'Forming a night time community'

6 Introduction.....	139
6.1 Seeing and acting on strategy risks.....	141
6.2 Acting with Responsiveness.....	148
6.3 Using time profitably.....	152
6.4 Encouraging collaboration.....	158
6.5 Conclusion.....	165

Chapter 7

'Working in the Dark'

7 Introduction.....	167
7.1 Feeling a bit lost	169
7.2 Losing things.....	178
7.3 Fearful professionals seeing risks.....	186
7.4 Conclusion.....	195

Chapter 8

Discussion: 'Illuminating on working in the dark'

8 Introduction.....	200
8.1 Enabling a more self-directed workforce through acquiring night vision	202
8.1.1 Fearful professionals seeing risks.....	203
8.1.2 Sensing risk.....	205
8.1.3 Seeing bogeymen.....	207
8.1.4. Feeling insecure.....	209
8.1.5. Sensing chaos.....	211
8.1.6 Feeling unrewarded.....	214
8.1.7 Being a midwife.....	216
8.1.8 Being with mothers.....	218
8.2 Disorientating effect of the established system to newcomers.....	222

8.2.1 Feeling a bit lost.....	223
8.2.2 Losing things.....	225
8.2.3 Being alone.....	230
8.3 Collaboration needed to support working in a constantly changing environment	231
8.3.1 Shedding a light.....	232
8.3.2 Working with others.....	235
8.4. Seeing and acting on strategy risks.....	236
8.4.2. Acting with responsiveness.....	237
8.4.3 Using time properly.....	238
8.4.4. Collaborative care and learning community.....	239
8.4.5. Embedding learning into day-to-day work.....	240
8.5 Conclusion: Community for collaborative learning.....	241

Chapter 9

Conclusion

9. Introduction.....	243
9.1 Conclusions.....	243
9.1.1 Experiences of professionals involved in the Hospital@Night.....	243

9.1.2 Professionals and patient safety.....	244
9.1.3 Professional perceptual differences and similarities.....	244
9.1.4 Competences in team collaboration.....	245
9.1.5 Capabilities of the Hospital@Night.....	245
9.2 Unique contribution.....	246
9.2.1 Learning.....	246
9.2.2 Application of data from practice.....	246
9.2.3 Opportunity to use incidents in the night for learning.....	247
9.3 Rigor and limitations of the research.....	247
9.3.1 Rigor.....	247
9.3.2 Limitations.....	249
9.3.3 Surprises.....	250
9.3.4 Influence of research on researcher.....	253
9.3.4.1. Research as a major influence on researcher.....	253
9.3.4.2 Change in researcher thinking.....	254
9.3.4.3 Transformative change in practice.....	254
9.4 Recommendations.....	255
9.5 Researcher reflections.....	256

Appendix.....258

References.....278

LIST OF TABLES

Table 1: The participant characteristics of the purposive sample.....	62
Table 2: Being scared in the night.....	84
Table 3: Acquiring night vision.....	118
Table 4: Forming a Night time community.....	141
Table 5: The core category working in the dark.....	167

APPENDIX

Introduction.....	258
I. (a) NREC approval of study 08/H1/305/58.....	259
(b) NHS approval of study 08/H1/305/58.....	259
II. Issues related to 'Being insider researcher'.....	262
II (a) Invitation to participate in the Hospital@Night project	262
II (b) Interview schedule.....	263
II (c) Consent Form.....	264
II (d) Informed consent.....	265
II (e) Confidentiality: Transcribers confidentiality agreement.....	266
II (f) Confidentiality: Storing and analysing data.....	267
III. The interview and technology used.....	268
III (a) Running the interview.....	268
III (b) Olympus DS 50 Digital Voice Recorder.....	268
III (c) Transcribing service.....	268
III (d) HyperResearch / HyperTranscriber.....	269
III (e) Dragon naturally speaking.....	269
IV. GT tools used to enhance theory building in analysis.....	270
IV (a) Initial coding.....	270
IV (b) Memo writing.....	270
IV (c)	
Diagramming.....	272
V. Glossary of terms defining research.....	275

Chapter 1:

Introduction

1. Introduction

The research was designed to explore the 'Hospital at Night' (Hospital@Night) system in the Obstetric-Paediatric interface. The Hospital@Night system was a government initiative in response to the European Work Time Directive (EWTD). The directive arose because of concerns over the vocational culture of long working hours across a number of industries. In the context of its application to healthcare the WTD created capacity problems for the NHS. The organisation in which this research was set reacted with initiatives, one of which was the extension of midwifery roles to cover some roles traditionally carried out by junior doctors.

The study explored medical and midwifery perceptions of the Hospital@Night with Grounded Theory methodology employing in-depth discursive interviews. The study has contributed to knowledge in showing that professionals manage safety issues both compliance and strategic through use of guidelines and through use of heuristics acquired from experience. The study highlights the importance of exploratory research before deciding on inter-professional learning objectives for teams.

1.2 The problem

In the UK, the NHS adopted the EWTD in 1997 (Goodling, 2009; Thorpe, 2002). Although, the British Medical Association (BMA) was keen for its members to work within the European Work Time Directive, the main employer the NHS and trainers of doctors such as the Royal Colleges were not so keen on the idea of reducing medical working hours. While the NHS had accepted the EWTD ruling in principal for non-medical professionals, doing so for medical professionals, entailed finding alternative ways of meeting the shortfall other than through recruitment of extra doctors. For medical training providers accepting the EWTD safety initiative for the medical profession carried with it the strategic risk of burdening the country with doctors who had fewer practice hours. Yet the EWTD provided an opportunity for other professionals to acquire more skills. After much rancour about limitations in clinical exposure and consequent experience, in 2004, the Royal Colleges fell in line with the rest of the NHS and adopted the EWDT. The initial focus of this study was on the medical perspective. The focus of the 'Hospital@Night initiative was to overcome strategic risks, which come with reduced medical capacity. The aim of the Hospital@Night is:

'To define how medical cover is provided in the hospital during out of hours period. The approach provides the best possible care for the patient given the changes in permitted working hours (<http://www.healthcareworkforce.nhs.uk/hospitalatnight>)'.

Rather than recruit more doctors to cover the capacity deficit, the hospital encouraged senior midwives, who are non-medical frontline professionals to extend their roles and take on some of the responsibilities undertaken by junior doctors. This strategic choice to use senior midwives with extended roles for the Hospital@Night system in the Obstetric-Paediatic interface had potential impact on the delivery of both healthcare services and professional

learning. Senior midwives would have to redesign their work or do more per shift.

1.3 Setting of the research

The research was at small District General Hospital with annual birth rate of just under 1500. Specifically, the study explored experiences across two professions (medicine and midwifery) and three disciplines (Anaesthetics, Obstetrics and Paediatrics) involved in the provision of care at night as part of the Hospital@Night project. Since the EW T D came into effect, there are three rotas for doctors on 4-6 month departmental rotations; from 9AM to 5PM; 5PM to 9PM and 9PM to 9AM.

With this rapid personnel turnover of frontline professionals, what needed attention was finding out how those who have stayed longer in the hospital have developed processes to ensure patient safety particularly since the Hospital@Night system was adopted. Ideally, under the new system, non-medical frontline professionals would do most of the resuscitation work, assist at operative deliveries and be able to administer certain therapies to mothers in labour.

In the Hospital@Night system, apart from looking after patients who need complex care, professional teams also show internal structural complexity. Moreover, participating members are heterogeneous professionally and have different past experiences. Within the system, past patterns of success and failure both have a high influence on decision-making than clinical evidence

(Althabe et al, 2008; Grol & Grimshaw, 2003). On a daily basis, these factors generate complex interactions, which the study aimed to explore.

1.4 The research question

The primary research question was:

How do healthcare professionals describe their experience of working in the Hospital@Night?

It seemed important to explore the experience of frontline staff to discover their views on how the system withstands the interactive heterogeneity and what lessons could be drawn for inter-professional learning and working.

1.5 The research

The goal of the research was to explore the Obstetric-Paediatric interface because the EWTD main purpose was to ensure that patients were treated in safe health facilities. What had triggered the EWTD was the realization that professional fatigue through lack of sleep was a root cause of a large number of medical errors (Rosenbluth & Landrigan, 2012). Furthermore, an influential view is that policies such as extending midwifery roles promote non-medical practice (Gorman & Briere, 2011). With extended roles, professionals would have to work together in new ways. Equally, education programmes will only be effective if they match and fit the constructed reality of professionals who have to participate in such educational programmes. In 2009, National Research and Ethics Committee approved the proposal.

1.6 The nature of the methodology

After NREC approval, of the proposed exploratory study using in-depth interviews started. Twelve professionals made up the purposive sample of participants. Primarily, this study employed constructivist Grounded Theory methods. Interviews and initial analysis went hand in hand.

1.6.1 Grounded theory

In-depth discursive interviews were used in data gathering. GT methods used in analysis included starting with initial coding, constant comparison, theoretical sampling, category building and enrichment (Charmaz, 2006; Creswell, 2007).

1.6.2 Significance of the study

This is the first research of this type and magnitude in the hospital. The study has shown that rather than remotely placed managers, frontline professionals mitigate strategic risks associated with adoption of strategies such as the Hospital@Night system initiative. Professionals do so through use of shared mental models and heuristics rather than with formal methods of strategy risk management.

Within a very loose network of inter-dependent professionals, frontline professionals have developed a shared purpose of improved outcomes for patients. In labour, more through their reliance on maternal physiology than instrumental rationality to guide decision-making, frontline professionals co-create care with mothers. Frontline professionals claim to have started decreasing the rate of Caesarean Delivery.

The study has achieved the following objectives:

6. Exploring the experiences of professionals involved in the Hospital@Night system.
7. Determining how participants describe the systems in place to maintain patient safety.
8. Investigating experience differences and similarities between professional groups.
9. Exploring how participants describe their competences in team collaboration.
10. Describing how participants perceive the capability of the Hospital@Night system in the Obstetric-Paediatric interface.

1.7 Role of the researcher

A researcher who works in the same organisation had three roles that in the research. The primary role was to be with the participant in the research process and with open-ended questioning, reconstruct and co-create the participants reality of the interface. The second was to ensure confidentiality and the third role was to render the researcher's interpretation on the interview data and report the interpretation.

1.8 Researcher assumptions

The most important assumption was that reality is socially constructed. This translates that although issues such as the EWTD were important sources of change, professionals through interaction were primarily shaping the reality of Obstetric-Paediatric interface. Individuals develop special meaning for each

experience and it is the researcher's duty to interact with individuals to get access to special understanding.

1.9 Organisation of the thesis

The rest of the thesis is as follows: Chapter 2 describes the context. Chapter 3, describes the methodology. Chapters 4-7 present the findings of the research. Chapter 8 discusses the whole research experience. Chapter 9 concludes the research.

Chapter 2 describes the context as interplay of various policy theories and shows how professional attention migrates towards certain policies for implementation but also for learning and rendering a local interpretation.

Chapter 3, methodology describes the attitude to knowledge creation that the research adopted from employing discursive in-depth interviews to building theory from within the data. The chapter discusses advantages of encouraging engagement in negotiating local meaning

Chapter 4 Introduction to the findings offers an overview of the results. The overview is followed by the first major category, 'Being scared in the night'. 'Being scared in the night' describes what it is like to work in the high acuity arena of the Obstetric-Paediatric interface. Apart of from using guidelines, professionals rely on their ability to sense strategic risk areas and through seeing, they act. To sense they employ heuristics and mental models, which practice, have shaped through the years.

Chapter 5, 'Acquiring night vision' shows frontline professionals have developed through years of self-directed learning. They are committed to train others opportunistically through participating with less experienced colleagues in meaning making and negotiation within the clinical practice arena. There are opportunities for formalising clinical training to degree, masters and doctorate levels.

Chapter 6, 'Forming a nighttime community' represents frontline professionals as working within a loose network that a shared purpose of ensuring good outcomes for patients interconnects. Opportunities for developing an even stronger shared purpose exist through using frontline professional time profitably, collecting and analysing data collaboratively.

Chapter 7, 'Working in the dark' shows professional openness to the possibility that they face potential losses and gains in the day-to-day professional interactions. This approach appears to shape professional approach to work in a complex environment. The chapter shows how a more critically reflective community could form through opportunities for increased collective participation, imagination and engagement.

Chapter 8 discusses the organisational implications of the research findings.

Chapter 9 concludes the research and makes some recommendations to the organisation.

The appendix follows with an introduction of tools used through out the research process that made the research authentic, credible and trustworthy. This is followed by a more detailed description of each tool.

A tabulation of references in alphabetical order using the Harvard reference system follows. Only those references that appear in the text have been followed.

Chapter 2:

Context

2 Introduction

The chapter constructs the context through a range of perspectives (Holstein & Gubrium, 2006) of frontline professionals working in the 'Hospital at Night' (Hospital@Night) system. The Hospital@Night system of the Obstetric-Paediatric interface arose following the European Work Time Directive (EWTD) limiting the hours worked by junior doctors. In the Obstetric-Paediatric interface frontline professionals, include midwives, obstetricians, paediatricians, radiographers, anaesthetists, nurses, laboratory staff and theatre operatives.

The chapter shows how the three policy ideas about EWTD, rising Caesarean Delivery rates and extension of midwifery roles converged on the Obstetric-Paediatric interface more through opportunity than by design. These then set up conditions for the research question about professional perceptions of inter-professional learning in the Obstetric-Paediatric interface.

The chapter has four sections.

- The background
- The setting
- Factors influencing policy

- The situation of frontline professionals in the Obstetric-Paediatric interface

The background presents theories of the social construction of policy. An example of how the story of a young adult changed the approach to inter-professional working and learning is given. The setting is constructed and defined next. The setting shows how several models of policy converge to create change. This is followed by a categorisation of international or global, structural, cultural and situational factors that have had influence on policy (Buse, Mays & Walt, 2010).

The influence of incidents from elsewhere and that of the Institute of Medicine (IOM) through its publications is discussed under international or global factors. A discussion of the contribution of structure and institution to the 'Hospital@Night' through EWTD and extension of midwifery roles follows (Hill, 2013; Hussain & Marshall, 2011). After this comes, the contribution of cultural factors, particularly changing professional attitudes to the discourse of Caesarean Delivery and inter-professional working in relation to the wider agenda follows on (La Chance & Lundquist, 2013; Jain & Wapner, 2008; Mander & Murphy-Lawless, 2013).

Finally, the discussion addresses the situation of frontline professionals, some of whom are extending roles to implement strategy and manage the strategic risks arising from it (Kaplan & Mikes, 2011; Gorman & Briere, 2011; Cox, Hill, Lack, 2013). It seems that embedded within the actions of frontline

professionals in the Obstetric-Paediatric interface is a community awaiting further exploration through inter-professional working and learning.

The chapter concludes that change occurs through the migration of negotiated meaning within the Obstetric-Paediatric interface. Professionals migrate to what they see as a problem and act on it. Instead of a triangular framework of institution, government, and people, migration of professionals is modulated through a polymorphous framework.

2.1 Background

According to Schwandt, (2007), contextualism refers to a humanist theory that a particular context specifies human nature and makes it intelligible. In addition, Holstein & Gubrium (2006) posit that human beings and their artefacts construct their context through collective actions and interactions. Faced with a reality that is constantly shaped socially, social pressure, authority and energy of protagonists and widespread commitment to change within a community are important drivers of change. These may be prominent in one location and less so in another context.

Social pressure was a recognised driver of change in junior doctors' hours in America although it played a less prominent role in the implementation of the Hospital@Night system in the Obstetric-Paediatric interface in the UK. In the UK, the medical profession appeared to initially resist responding to the European Work Time Directive. The British Medical Association was of the view that doctors in training needed more hours of practice for them to broaden their competences. Whereas in America, there had been a public

outcry to decrease junior doctors' hours after a child Libby Zion suffered a tragic care outcome (Asch, 1988), the BMA and Royal colleges remained largely silent.

In America, the campaign to reduce junior doctors hours sadly started when two doctors, one junior (Equivalent to Foundation year 2 or Specialist Trainee year 1-2) and one resident (Specialist trainee year 3-5) attended to a teenager, Libby Zion, who was ill with suspected substance abuse related septicemia. She was in pain. The doctors quite rightly wanted to decrease her pain and prescribed for her pethidine, a widely used pain reliever. Unknown to them, the young adult was also on Mono Amine Oxidase Inhibitors (MAOI). Drug interactions contraindicate Pethidine as a pain relief agent in patients who are taking MAOI. As expected the young adult developed malignant hyperthermia and died. Her father petitioned the American government to decrease the hours worked by junior doctors when it emerged that both doctors had been on continuous duty for over 40 hours. Fatigue has pervasive effects on cognition and performance and shift workers and those who work at night are particularly at risk (Hirshkowitz, 2013)

While it could be argued that this incident may have triggered events, evidence had accumulated from other industries implicating long hours and the night shift in particular in major safety lapses and large scale industrial accidents. Major disasters such as the Bhopal methyl isocyanate release in 1984, Chernobyl nuclear plant melt down in 1986, and shortly after Libby's

case, the Valdez oil tanker accident 1989, all had occurred at night between 11PM and 7AM (Shirmer, 2010).

Notwithstanding this, with industrialisation night time working has been associated for a long time with improved productivity. Productivity or work done in a unit of time has been of major interest (Allen & Schwartz, 2011). For instance, it could be suggested that for long distance truck drivers, driving at night is advantageous because the roads are relatively free and cover long distances in the shortest possible time. This increased productivity leads to a 24 hours, seven days a week culture that promotes more productivity around the clock. The medical profession prides itself in upholding this culture of providing emergency care 24 hours a day and 7 days a week. Indeed Flexner defined medical profession with this intensity in mind (Stern, 2006). However, current evidence is challenging this form of risk-laden productivity.

Before the medical profession could react to changing perceptions about night time working, in the UK and EU, in the transportation industry that probably had more experience of health and safety concerns, change in the culture of working long hours was underway (DBIS, 1998). The EWTD legislation, which came into effect in October 1998 and applied to workers whose job included working between midnight and 5 AM or for practical purposes 11PM and 6 AM. With this legislation, the total time worked for nighttime workers was not to exceed 48 hours per week.

Until Libby's tragic accident and the social pressure that followed, the medical profession globally had excluded itself from concerns about long hours, night

duty, professional and patient safety. While non-medical professionals followed the rest of the country, in 1998 and adopted the EWTD, the medical profession held out till 2004. This study was designed to explore the effect of this cultural change in medical education from the perspective of reduced working hours and the experience of the Hospital@night. Underlying the reduction in working hours were issues relating to maintaining the productive culture, improving learning and making the workplace safer for patients; propositions which were not entirely easy to reconcile.

In addition to social pressure, Senge distinguishes two other important drivers of change in organisations. There is change that results from the authority and energy of the original authors of the policy. There is also change that results from widespread commitment, involving the aspirations of many people involved in it (Senge, 1999, 2011: 43).

Since the Obstetric-Paediatric interface was not in a position to accept or reject the EWTD, as with every NHS agenda, there has always been a degree of coercion from authority figures but frontline professionals did and still do '*exercise discretion*' on what they do or do not do (Cairney, 2013:254; Parsons, 1996: 267-9). The medical perspective was the initial focus of the study at the outset of the study. However, the question has evolved into an inter-professional perspective as senior staff insights from a range of professions proved to open up more ground for exploration.

Although one can distinguish policy context from content, process and actors, (Walt & Gilson, 1994), in a constructed reality, it is not always necessary to simplify complexity in order to understand it. Content, process and actors are part of the policy road map without houses, hills, rivers and valleys (Buse, Mays & Walt, 2005, 2010). Senior professionals, therefore, through narratives of the interactions constructed the context. Context in this sense can be defined in terms of connectivity achieved through actions related to mutual engagement, joint enterprise and shared repertoire of human beings experiencing similar circumstances. The context then is the repertoire that the community has *'adopted or produced...it combines both reificative and participative aspects...'* (Wenger, 1998, 2008:83). In other words, senior professionals working the Obstetric-Paediatric interface who face similar conditions, who in doing so have developed overlapping discourses or practices, create the context.

2.2 The setting

In the Obstetric-Paediatric interface, the Hospital@Night system partly owes its stability to a shared rota for junior doctors with support coming from senior midwives who have extended their roles. Policy theorists believe that at implementation level, forces such as multilevel governance, coalition groups and ideas co-exist in a negotiated equilibrium creating a sense of stability (John, 1998). Adding a new initiative to the negotiated stability punctuates it and generates more complex interactions than simple cause and effect.

Complex interactions amongst synergistic and often competing factors generate known or preventable risks, unknown knowns or strategy risks and unknown unknowns or global risks (Kaplan & Mikes, 2011). Unknown unknowns or black swan events are improbable events whose impact becomes probable (Taleb, 2007; Beck, 1999). For instance, recent infections in the Neonatal unit at Barrow in Furness could not have been anticipated, what is improbable in the culture of the NHS is that the Secretary of State (BBC News, 19.06.2013) could disown the manager who tried to suppress the report. It seems that as well as implementing or executing policy strategy, interface professionals must deal with emergent risks. Cairney (2013) categorises such factors that influence change and generate risks as situational, structural, cultural and international factors. There are models of how organised action in a context comes about.

Senge has described the migration towards learning about policy through action and interaction as diffusion of negotiated meaning through the system (Senge, 1999, 2011). While the diffusion metaphor is useful, it also seems to represent recipients of a policy as passive. For policy to become a way of doing things, professionals must act. Diffusion does not connote action.

Taking a more pathophysiological approach, at times, it is possible to characterise policy implementation as spreading by contagion like a virus (Cairney, 2013). Apart from passivity, the viral analogy seems to suggest that even if policy does not affect day-to-day engagement, one remains prone to becoming a policy champion. Something goes viral on face book only if many people visit that particular space. Others have described viral spread as

occurring via 'memes' (Dawkins, 1976). Meme is short for mimetics, which describes cultural transfer of information as similar to the replication of DNA. However, many now urge that this is not as selfish as the survival of the fittest. The spread of ideas for action is more unselfish and cooperative (Benkler, 2010).

Furthermore, decision-making to act or not is mostly fast and frugal (Kahneman, 2011; Stanovitch, 2011). In the frontline, professionals do not traditionally spend a huge amount of time debating policy before they make a rational choice, to commit or not commit. What is being asked of them has simply to resonate with their life stories, and then they migrate towards the issue and act. Miles (2012) lists about 40 ways in which learning can take place in an organisation. Since it seems policy moves across the interface and professionals move towards it, the paper addresses policy drivers next.

2.3 Factors influencing policy

In this section, the aim is to show how issues, important to research participants, transferred across policy contexts. Sleep studies; patient safety discourse, ideas about professional self-actualisation (extending roles) and international events have combined to change the work place policy in the Obstetric-Paediatric interface. Previous approaches to policy context studies have given no more than footnote status to international factors. With globalisation, such factors can have as profound an influence on far-flung contexts as local issues.

2.3.1 International factors: Reduction in junior doctor hours

Globalisation has increased '*inter-dependence and integration which have led to multilayer, multi-sector policy making*' (Buse, Mays & Walt, 2013: 168).

Some times, countries can learn from another country's misfortune. An incident involving a young woman (Asch, 1988) and three publications from the Institute of Medicine; (Corrigan et al, 2001); (Briere, 2001) and recently, (Gorman & Briere, 2011) seem to provide an important backdrop for the 'Hospital@Night' policy initiative. Rose (2005) identifies this as lesson drawing (Cairney, 2013). America had started addressing the plight of trainees when the European Union drew lessons and developed its own programme with a EWDT in 1998 and then in 2004. For European governments it was an example of value image creation (Miles, 2012). The value image was to recognise the research showing that sleep deprivation impaired patient safety. EWTD restricted the hours worked by junior doctors to a maximum 13 consecutive hours and 48 hours in total per week.

Although excessive junior doctors' hours had been highlighted as far back as the 70s (Friedman, Bigger & Kornfield, 1971; Deary & Tait, 1987), it took over 40 years for this to reach the decision making table. The research findings on sleep never reached the decision-making table because the issue did not make it on to the agenda of governmental policy makers who decide what to promote and when to discuss such issues (Miles, 2012).

Shiffman & Smith (2007) suggest an analytical framework with four categories to aid understanding how issues make it on to the policy agenda. Firstly, the

strength of the organisation and individuals whom the issue concern is critical. Libby Zion's family had successfully petitioned the Congress to pass legislation. Secondly, the way in which ideas associated with the issue evolve is crucial. Sleep and cognition science have now made great strides into shared language (Philbert, 2005; Dawson & Reid, 1997; Barger, Cade & Ayas, 2005; Chua, Gordon & Sectish, et al, 2011). Thirdly, the problem must be applicable to many contexts. At one time, work related stress was due to employee misbehaviour, a sign of lack of resilience and a failure to calibrate their life/work balance with care. Now employers acknowledge that the possible setting of stressful conditions within the work place implicates them too. Fourthly, the policy context should be right. In healthcare, the Libby's case had come when safety and junior doctors' hours had become important explanatory ideas influencing work place performance in other industries.

The quality agenda too had diffused into regulatory bodies that connected the healthcare quality discourse to hours worked by junior doctors. Organisations such as the NHS were beginning to recognise that they run risks if employees experience job stress because lack of sleep impairs judgement (DoH, 1998; 2004). Interestingly, since the Medical and Nursing professional bodies endorsed the EWTD policy on the effect of the number of hours worked on performance, more studies have endorsed earlier findings. Sleep studies have become a concern for employers.

A recent study showed that doctors who have been on duty run a higher risk for road traffic accidents on the way home (Barger, Cade & Ayas, 2005; Ayas,

Barger & Cade, 2006). Physicians working long hours are likely to experience job stress and burn out (Rosenbluth & Landrigan, 2013). Reduction in junior doctors' hours has not been without controversy however. There are concerns about the quality of education following reduction in hours and the short training programme. Concerns about education in terms of number of cases trainees are exposed to during their training are now over shadowed by the magnitude of clinical error which was highlighted by the 'To Err is Human' report. To Err is Human urged professionals, policy makers and public to accept clinical error as a possibility in an industry where error has signified incompetence, although the reasons why systems fail are now known to be a wide ranging from '*deviance and inattention to uncertainty and testing*' (Edmondson, 2011:50).

Errors resulting from deliberate failure to countercheck medication calculations are different from errors that occur for instance when professionals are deploying a new operational system. The first example of failure would arise from ignoring advice about known operational risks while the second type of failure would arise from unknown or strategic risks that emerge during implementation of the initiative.

2.3.2 To err is human

According to Mander & Murphy-Lawless (2013), quality and clinical risk have also informed the ongoing debate about reconfiguring the services. Quality and clinical risk concern frontline professionals working in a small hospital, which housed the research. In the US, clinical risk and fear of litigation has

been a major driver for curtailing Obstetric care outside large academic centres.

The Institute of Medicine (IOM) who created the report, 'To Err is Human' is an independent policy unit, which recruits its members for their special competences to advise the US government on complex issues in healthcare (iom www@nas.edu). To Err is Human (Corrigan et al 2001) highlighted the dangerous conditions within the healthcare system, citing 98,000 preventable deaths. With better systems designs, most of the errors according to the report were preventable.

The aim of the report was to make threshold improvements in safety within 10 years. The policy had all the tenets of rational choice theory because the report made assumptions about human nature such as assuming that professionals were purposeful and would recognise that it was within their interests to bring about envisaged change (John, 1998:118-119).

According to the publication, organisations at every level of healthcare would implement the recommendations of the IOM using a multilevel governance approach within a rational framework (Corrigan et al 2001: 6). Multi-level governance describes *'dispersion of power from national central government to other levels of government (hence multilevel) and the non governmental actor'* (Cairney, 2012:154).

Another view however is that, governance is not the good management beast it is portrayed to be. According to this view, which focuses on the instrumental rationality embedded within the governance framework, governance standardises care processes to a bare minimum, in line with cutbacks to services and the spirit of lowering the costs of litigation for the organisation (Deery et al 2010). Furthermore, societal discourse had similarly migrated to inter-professionalism. This view suggests that embedded within a community of practice are structures that compromise collective will to improve local conditions.

With such competing interests embedded within practice, although literature may indicate that breaking down professional barriers, was one way of improving services, in practice professionals had to be critically reflective enough to know how difficult implementing this concept was (Schneider & Ingram, 1997: 53-65). Change would involve uprooting certain taken for granted practices which compromise collective will to act.

For instance, views of support and interest groups indicate that the biomedical model in which male obstetricians prescribe care, has led to 'pathologisation' of natural birth and optimising instrumental delivery including Caesarean Delivery (Mander & Murphy-Lawless, 2013: 91). Obstetric practice thrives in centralised services.

Notwithstanding the trend towards centralised services, Obstetric practice assesses itself in terms of numbers. Yet relating Obstetric risk management to the size of the institution has drawn on models of care designed 20-30 years

ago, where the Obstetrician took sole responsibility for Obstetric care and consequent risk (Korst et al, 2011). According to this view, in taking personal responsibility for outcomes, the Obstetrician will resort frequently to instrumental rationality for decision making at the expense of maternal values. This view appears to hold that most Obstetricians believe that a small Caesarean scar is the price mothers sometimes have to pay for ensuring the baby does not succumb to the effects of oxygen deprivation or hypoxic-ischaemic encephalopathy.

From feminist standpoint, reliance for clinical outcomes on Obstetricians has become a hindrance to professional responsibility development (Mander & Murphy-Lawless, 2013). Moreover, research currently indicates that mothers may experience morbidity and depriving the baby of the bacteria of flora of the birth canal may have long-term consequences. According to Miller & Depp (2008: 449):

'Although no compelling proof exists of a neuro-protective benefit from expedited Caesarean Delivery for non-reassuring fetal heart status (NRFHS), by applying an arbitrary standard for timely intervention to cases involving potentially significant fetal compromise, obstetricians may be placing multiple parties at considerable risk without comparable chance of reward'.

Some of the complications of Caesarean delivery include risk of iatrogenic trauma to the baby (Hager, Daltveit & Hofoss, et al 2004), maternal morbidity including haemorrhage, blood transfusions (van Ham, Van Dongen & Mulder, 1997), genital urinary injury (Rajaseker & Hall, 1997; Phipps, Watabe & Clemons et al, 2005) have been described. Older children have a higher risk of inflammatory bowel disease (Neu & Rushing, 2011). Where To Err is

Human covered patient safety in the hospital, the Crossing the quality chasm', another publication from IOM covered the quality agenda.

2.3.3 Crossing the quality chasm

Similar in tone to 'To Err is Human', Crossing the Quality Chasm' was not only rational but it had an incrementalist agenda over 10 years. There were three key messages from the IOM contained in 'Crossing the quality chasm'.

The first was the IOM calling on the healthcare community to build new relationships in which patients were knowledgeable participants who were capable of deciding on their care. In other words, patients were equally capable as their care providers of care to make rational choices about their care (John, 1998). This is in contrast with the traditional conception of rationality, which suggests that policy analysis and rational decision-making are too complex for the public to understand (Parsons, 1995). Indeed psychological studies indicate that very intelligent people are only marginally better than ordinary people are at making rational decisions (Stanovitch, 2009).

Secondly, professionals had to accept that they would have to operate in a system, which depended on transparency and availability of information.

Thirdly, cooperating clinicians would secure scarce resources for patients. Crossing the chasm became a driver for healthcare redesign in six areas, patient safety, patient centred care, timeliness, efficiency, effectiveness and

equitable care. The publication also showed how the redesigned system would be different from current practice.

The document seemed to satisfy many sectors of the community because it was candid and spoke about problems in healthcare, which everyone recognised as important. Policy transfer was quick and effective. The NHS in keeping with the quality agenda, having published the 'new modern and dependable NHS' (DoH, 1997) provided training for professionals to help them migrate to a more transparent NHS. Yet problems, which needed novel problem solving, were emerging within the system that is complex and interrelated.

2.3.4 Structural factors

From a structural perspective, the Obstetric-Paediatric interface delivers healthcare to the local population in the face of escalating healthcare costs. Three structural factors appear to form a triple contingency, society, the government, and the NHS in policy formulation and implementation. This discussion shows that NHS employees and the culture of the NHS also play an important role indicating that the triangular model is an over simplification of a complex interaction leading to policy change.

2.3.5 Society

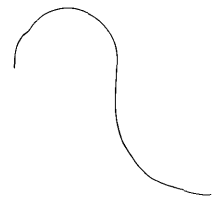
Debate has always been intense as local communities vie for a share of the healthcare budget and the NHS seeks to reduce the cost of providing care (DOH, 2009). The influence of society can be understood through the

influence of the National Childbirth Trust (NCT). Historically, NCT, has supported the rights of mothers and has provided classes and education. A criticism has been that the NCT was too pro-establishment and wanted to teach mothers how to behave (Marshall & Woollet, 2000; Locke & Horton-Salway, 2010). On the other hand, NCT could not influence the government agenda without developing a working relationship (Buse, Mays & Walt, and 2013:109).

As a vindication of societal support, efficiency, which was one of the six areas for quality development, has been criticised in recent organisational and business literature as an approach to better and cheaper services. The alternative approach is that instead of focusing on efficiency and cutting services, organisations should focus on two areas.

Organisations should focus firstly on improved health outcomes for the local population before offering cheaper undifferentiated services. Secondly, organisations should increase the number of service users and revenues before cost cutting (Raynor & Ahmed, 2013).

In healthcare language, Raynor & Ahmed would encourage development of sophisticated services that targeted local need and encouraged the local population to use services. Society has a way of representing it self about what quality of service it needs through advocacy coalitions.



According to Sabatier (1986), although the advocacy coalitions framework does not involve the public directly, coalitions serve the public through groups and networks of shared interests offering alternative ideas to preferred government policy (Buse, Mays and Walt, 2012). Advocacy coalitions involving different sections of society who are united by their beliefs about natural childbirth and support of natural birth practices (Mander & Murphy-Lawless, 2013:54; Cairney, 2013). These groups want to make it easier for midwives to support mothers so that mothers can let their body physiology progress labour to a natural conclusion.

An interesting coalition exists between academia, feminist literature and patient support groups to bring newer understanding to natural birth. With acknowledgement of patient groups, the policy community is primed to problems related to Caesarean Delivery. Because of the collective power of coalitions, maternity services have done a lot to improve customer experience. Increasingly, senior midwives attending to mothers, treat mothers as co-participants in the management of the delivery of their baby.

While this approach may be a sign of receptiveness, other advocates see the approach as a sign of continuing medicalisation of childbirth (Mander & Murphy-Lawless, 2013; La Chance Adams & Lundquist, (2013). According to this feminist standpoint, unreflective engagement with childbirth has resulted in medicalisation of childbirth at the interactional level from '*a domestic and social phenomenon to a potentially pathological level*' (Mander & Murphy-Lawless, 2013: 54).

In spite of the efforts of professional staff and coalitions, there has been a global rise in the rate of Caesarean Delivery. Yet recent evidence does not support Elective Caesarean Delivery (ECD) before term

'To minimise potential neonatal risks in ECDs, these deliveries should not be undertaken before 39 weeks gestation' (Signore & Klebanoff, 2008: 368)

It is easy to see why policy is ambivalent about Caesarean Delivery. Mander & Murphy (2013: 93) cite literature, which suggests that active management of labour *'comprises control of the woman's labour being removed from her or her body'*. Moreover, in a cost cutting system, a quick Caesarean Delivery is much cheaper to service providers than the more patient-family centred approach midwifery led care would entail.

2.3.6 The government of the day

From 1998-2010, as a general policy, the government of the day increased the numbers of staff, and built more hospitals. Importantly, the government set the quality agenda (DoH, 1997). The NHS Plan followed this shortly in 2000. The NHS plan was an ambitious document, which set out important challenges in the organisation of healthcare. For the first time, it was clear that the NHS was no longer a medical service; it was a service industry, which planned to serve its customers well.

2.3.7 The NHS and its employees

The NHS is the institution through which the government of the day realises its pledges to the electorate. The NHS was set up to provide a system of healthcare to individuals depending on need, planning would be central and

implementation would be achieved through regional and local bodies. For instance, between 1997 and 2010, the new labour government published 26 Green papers and White papers, and 14 Acts of Parliament, which resulted in more spending on healthcare (Pascall, 2012). This indicates that the NHS works as an institution, which *' churns out policy on behalf of the political system'* (John, 1998: 40-42). Yet the NHS struggles to get things done. For instance, the NHS experiences cash flow problems and has been cutting costs.

In 2007, the NHS conceded that it was experiencing productivity problems. According to one source, productivity, which is arrived at by dividing the time series for outputs (health gain and patient experience) by the time series for volume inputs had not improved in spite of the investment over a 10 year period (D o H, 2007). Others have pointed out that there has been declining productivity in the NHS as a whole (The Independent, Sept 2010). The NHS was putting in more money into healthcare than the outputs expressed in quality terms (D o H, 2007; D o H, 2010).

It seems that the relationship between the NHS and its employees is more bidirectional than top-down. Through White papers, the NHS influences its employees and employees appear to influence the NHS through their activities (Cairney, 2013).

Another example was the introduction by NHS of Web sites where professionals could see how they are doing and how they compare to other hospitals or performance indicators

(<http://www.productivity.nhs.uk.shaDataDownload>). Furthermore, organisational learning has been encouraged through the Institute of Innovation and Improvement. For example, the Institute of Innovation and Improvement introduced a tool kit of improvement techniques for hospitals to use (www.Institute.nhs.uk).

Although the NHS appears to be a prime example of multi-level governance through its employees, it still faces problems. The need to decrease numbers of Caesarean Delivery, keep maternal morbidity and mortality low and at the same time support junior doctors have provided complex questions for the Obstetric-Paediatric interface to solve.

2.3.8 The culture

The culture of the NHS and its employees is an important contextual factor. Many studies have shown how vulnerable even the most well thought out policy can be to contextual factors. Times have changed and the implementation context has become polyphonic with multiple voices such as user voices, managerial voices, and other professional voices such as those of nurses and midwives, all seeking an audience and a share of participation.

From another perspective, the discourse of childbirth too has alternative voices to the biomedical model. These voices are characterised by their ability to influence policy through learning about policy and building coalitions with the grass roots (Carney, 2013; John, 1998). For instance, the feminist standpoint has changed the ideological landscape of childbirth (LaChance

Adams & Lundquist, 2013; Mander & Murphy-Lawless, 2013), and seeks to problematise the understanding of childbirth.

Weiss (2013) makes an interesting point about responsibility to the newborn baby as something that is animated as soon as a person is born:

'and yet, birth is a morally significant experience... The unique "bodily imperatives' that issue from the infant's body did not and could not exist before the infant' (Weiss, 2013:119)

It can be speculated that Weiss provides an important antidote to the biomedical model in which professionals sometimes assume responsibilities without drawing any reflective distinctions between professional responsibility and control of the birthing. Yet recent studies show that lives can be saved through patient selection and targeting fetuses who are experiencing ill health (Walton & Peaceman, 2012).

2.3.9 Collaborative culture

Inter-professional working and learning have been on the NHS agenda for over two decades, and the EWTD was an opportune window through which collaborative working could be promoted. The contemporary NHS policy context encourages inter-professional collaboration (DoH, 2010).

As a sign of institutional cohesion and stability, professional regulatory bodies such as the General Medical Council (GMC) (2012) and Nursing Midwifery Council (NMC) (2012) expect their members to demonstrate collaborative behaviours. This indicates a robust institutional system at the top that is able to direct action (John, 1998). While patients and clinicians accept that inter-professional collaboration delivers value for patients, working collaboratively

must bring with it inter-professional learning because collaboration involves working together, sharing information and knowledge (Montgomery et al 2012). Different knowledge claims mean different things to different people. Knowledge claims can be quite threatening to some interest groups and not others and groups tend to fight their corner (Edwards, 2005; Mander & Murphy-Lawless, 2013).

A further point is that meaning negotiation and purpose development require *'enhanced decision-making, better participation and higher motivation'* (Waddington, 2012: 176; Wenger, 2008). This is a rational approach to change. However, having received a discipline bounded education and settled in a professional job; most professionals are unprepared for such intensive collaborative learning and working. With these limitations, it is emerging that rules of thumb and heuristics appear to play a crucial role in decision making about policy choice in the implementation context (Buse, Mays & Kent, 2005, 2012).

Others advise that organisations must now build flexible models and transform the organisational culture through targeting sources of data. According to one source, *'the artful leader will create an organisation flexible enough to minimise not the 'not invented here syndrome and maximise cross-functional cooperation'* (McAfee & Brynjolfsson 2012: 67-8).

Others yet feel that the landscape has changed especially with private learning, which professionals are very good at, being insufficient to capture

the explosion of data for service improvement, which is waiting to be captured (Mayer-Schonberger & Cukier, 2013).

The top-down, command and control model of management that has shaped the NHS thus far also faces legitimacy challenges. From the business literature, some see the command and control culture and even that which is based on consensus as exclusive and argue for a more collaborative leadership model and a flatter, less layered, governance structure.

Recently Ibarra & Hansen, (2010) has differentiated command and control, consensus and collaborative models. Collaboration is borne out of an organisation acknowledging that useful knowledge is widely dispersed at all levels of the organisation. Command and control is paternalistic and sources knowledge from the top of the organisation. In constructed reality, command and control models could result in limited change because professionals may find it difficult to migrate to issues that do not resonate with what they are experiencing.

2.4 The situation of frontline professionals in the Obstetric-Paediatric interface

In this section, the policy context is seen from the perspective of professional readiness for collaborative working and extended roles or team development. The discussion addresses the new sciences, the global WHO programme for Inter-professional working and local programmes are reviewed. Team development is approached from the perspective of seeing and acting. The

idea of migration towards a policy is represented through role extension as an idea of professional interpenetration. Based on in-depth understanding of the work place through both qualitative and quantitative methodologies, models of healthcare delivery to meet local needs could be designed by inter-professional collaborative practitioners.

Contemporary workplace sciences such as ergonomics and human factors seem to imply that it is possible to develop highly reliable systems of care (Leape, Berwick & Clancy et al, 2009; Chassin & Loeb, 2011). To do that, talent from different disciplines must co-create a more effective, safer, equitable, efficient and patient centred healthcare system that delivers timely care (Briere, 2001). However, it appears, all attempts at implementing policy including collaborative working, occur in a context that is neither always homogenous in perception nor coordinated in action. It is easier to work as disciplines who meet now and again to deliver than as an inter-professional team.

Equally, there is evidence suggesting that adverse outcomes are more common when professionals do not agree on the best management for the patient. Cooper & Wakelam (1999) recognised difficulties of getting frontline professionals to work together. These authors borrowed the ideas of airline procedures or Crew Resource Management (CRM) developed by Helmerich and others (1999) to create a model for inter-professional learning. What has become clear however is that healthcare professionals have limited opportunities for learning together.

Moreover, others have suggested there is no cosiness between the professions and respect for each other is a euphemism for a truce of none interference, which is common in discipline- based practice (Mander & Murphy-Lawless, 2013). Yet designing care processes requires the services of talented professionals who understand what their co-workers do and are able to work creatively with them (Morieux, 2011; Barr, 1998; 2002; CAIPE, 2002). Morieux posits that working collaboratively entails '*establishing an environment in which employees can work with one another to develop creative complex challenges*' (Morieux, 2011:80).

Rationally, it is believed that once other professionals understand each other's roles and how different roles contribute to outcomes, professionals communicate more effectively with each other to deliver high quality care (Marshall& Gordon, 2005; Patrician, Dolonsky, Estrada et al, 2011). Yet, professionals are individuals and they need a culture that sets priming conditions to enable them to migrate to a safer inter-professional environment.

What is implied is that professionals in the frontline must collectively construct appropriate processes and maintain these processes using mixed methods including principles of reliability science, ergonomics, human factors (Carayon, 2007) and qualitative inquiry.

Reliable work systems are very rational and rely on mathematical modelling of the work process to limit preventable risk (Luria, Muething, Schoettker et al,

2006). Reliability science, data management, and work process modelling are the new sciences of 21st century. They may require a professional practice framework for service improvement, which puts careers of professionals and maintenance of patient safety at the centre of clinical practice.

The traditional assumption about medical and nursing education is that healthcare professionals will pick up the skills they need to work with others through exposure to experience. In contrast, inter-professional learning could prepare talented professionals through learning about each other's roles.

WHO recognises that *'inter-professional collaboration in education and practice as an innovative strategy that will play a crucial role in mitigating the global health workforce crisis'* (WHO, 2010: 7).

The goal of WHO's inter-professional collaborative programme is to deploy global programmes that aim at preparing undergraduate and graduate students for an inter-professional workplace. To this end, the WHO has constructed a framework for action on inter-professional learning (WHO, 2010). Furthermore, teams could learn inter-professional sciences such as techniques for enhancing reflectivity and decision-making (Stanovitch, 2011; Hunnicks et al, 2012).

Locally, work on this framework has started. At undergraduate level, universities in the UK have combined efforts to design a framework for inter-professional education. A local example is the Combined Universities Inter-professional learning Unit which is a collaborative initiative between Sheffield Hallam University and The University of Sheffield funded by the Department

of Health (Gordon & Marshall, 2005; Gordon, 2009). However, the programme may face stasis as enthusiastic individuals leave.

Notwithstanding this concern, current students who are growing into each other's roles may speed up evolution to inter-professional collaboration through for example role extension.

2.4.1 Extended roles

Another example of policy transfer has been the transfer of policies that had grown within American nursing academia. There have been similar debates in the United States about improving professional practice of nurses and midwives, which culminated in the publication of the 'Future of Nursing', published in 2011 (Gorman & Briers, 2011).

The 'Future of Nursing', was salutary to the ongoing debate about professional development of nurses and midwives. This document advocates for nurses and midwives to learn and acquire competences to the best of their ability. Although professionals may not have been aware of the actual publication, the idea that midwives needed to learn and work to the best of their ability is not new. For one reason or the other, however, further training and development of midwives has never taken priority.

However, lately in the UK, American developments have easily transferred to the UK. For instance, the Nursing and Midwifery Council, NMC (2012) issued new guidance, with a specific focus on education in an inter-professional working and learning environment. The new guidance focuses on aspects of the learning environment within the workplace. The guidelines have defined important skills, including being able to teach, establish effective relationships,

use evidence based medicine and leadership. Similar values are encouraged in medical education (Stern, 2006; Cruess, Cruess & Steinert, 2009).

In this guidance, the NMC expects midwives to be teachers or mentors to other midwives. Mentors should be prepared to an intermediate level requiring a minimum preparation period of 10 days. Murphy has shown the success of this practice model (Murphy et al, 2011). It seems that aiming to train Midwives to the level of Advanced Practitioner level may be more appropriate for the complexity of tasks faced by midwives in the Obstetric-Paediatric interface (Summer, 2012).

Interestingly, once the option of role extension was a possible solution to capacity problems, the strategy carried its own risks. According to one source, prior to adopting collaborative practice, many mortality meetings in their hospital ended with 'the Obstetrician should have been consulted earlier'. Midwives also saw doctors as intervening too early indicating different thresholds for seeing and acting (Pecci et al, 2012).

The NHS and regulatory bodies are ambivalent; they encourage professional interpenetration while putting the accountability onus squarely on the shoulders of the individual practitioner. For example, according NMC guidance, individual midwives should be accountable for the responsibility they take for the maternal well-being, which could encourage midwives to behave like Obstetricians and make decisions in their own professional interests than those of mothers.

This could entrench instrumental rationality at the expense of other values. An instrumentally rational person is

'one whose thoughts, actions, and being are dominated by the means/ends nexus. Such a person, is always engaged in calculation, acquisition, consumerism, and self interest' (Schneider & Ingram, 1997: 54).

In contrast, midwives are less calculating and more giving. Midwives have a burden of responsibility per shift. What is most striking is that midwives manage to cover the huge spectrum of professional practice at night within the allocated time. In addition, doctors have historically dumped onerous tasks on Midwives and nursing professions (Pascall, 2012).

Studies indicate that a bit of instrumental rationality such as proper scheduling can improve morale and retention (Hill, 2011). Moreover, a more clearly defined inter-professional development model could improve governance and performance. In addition, it does not only have to be Midwives who should extend their roles, elsewhere several models have been implemented which include nurse consultants, Hospitalists and physician assistants to cover the deficit created by junior doctors limited hours (Cramer, Orlowski & De Nicola, 2008).

2.5 Conclusion

Yet the value system of disciplines continues to thrive, even with the recognition that collaborative working is an effective approach to complex healthcare provision in the 21st Century (WHO, 2010); respective disciplines silo professional education within their disciplines. The two situational factors, which focused this research, were the EWTD and changing views about

Caesarean Delivery. Yet they were to take place in a healthcare context that has thrived for a long time on the biomedical model in which the medical profession controlled resources, access to care and education (Mander & Murphy-Lawless, 2013; La Chance Adams & Lundquist, 2013).

Replacing service delivery with a learning model is not something that those in managerial circles may find appealing. This is particularly so in the context of a command and control culture that has evolved around healthcare reforms since the 1989 white paper 'Working for patients', which ushered in the ongoing reforms. The managed service was reinforced in 1997 by the 'New NHS' modern and dependable white paper which set the agenda for quality improvement. Yet the top-down management model is no longer the only channel through which change is distributed.

The Obstetric-Paediatric interface has its historical roots in a cultural context of indefatigable junior medical trainees who spend inordinate hours in service. What the context has highlighted is that disruptions to a stable policy context happen because the organisation may have more than one related issue to resolve. Multiple policy change and contingency theories will apply to one issue depending on time and dimension of analysis.

For a considerable time, studies from other countries particularly America, had indicated that midwifery led care was associated with lower Caesarean delivery rates, yet this went without acknowledgement. Even coalitions with support groups did not seem have much impact. Similarly, hours worked by doctors in training, which appear to have been behind EWTD, had been an

area of concern for a long time; no one seemed to connect this educational practice with poor patient outcomes.

To change this culture, the NHS had to make a rational choice between discipline- based solutions to reduced junior doctor hours such as increasing numbers of doctors in training posts or take the opportunity to promote inter-professional collaborative working through professional role extension. The NHS chose the later. A rational decision was that it would be possible to reduce junior doctors' hours and Caesarean Delivery rates through an inter-professional working framework. In other words, although EWTD may appear to have compounded the workforce crisis, EWTD provided an opportunity for policy learning from the American experience and simply punctuated a negotiated equilibrium to create and reshape the way work is done in interface.

The context of the Obstetric-Paediatic is not triangular; it is naturalistic, polymorphic and migratory. The Obstetric-Paediatic interface will remain an unfinished business for a long time to come.

Chapter 3

Methodology

3 Introduction

The research question posed in this study was 'How do front-line professionals describe working in the Hospital at Night?' The methodological approach taken was based on constructivist grounded theory (Charmaz, 2006). This approach was considered appropriate in order to meet the aim of the study 'to gain insight into how healthcare professionals working in the hospital at night negotiate reality, learn and create change through their professional interactions'. Grounded Theory methodology is well placed to explore the perceptions of the study's participants and mutually create knowledge with the aim of creating an interpretive understanding of subjects' meanings (Clarke, 2005; Charmaz, 2006; Morse, 2007, 2010).

The site of the research was at the Obstetric-Paediatric interface of a small district general hospital in the United Kingdom (500 beds). The Obstetric Paediatric interface is an arena of inter-disciplinary practice involving midwives, obstetricians, anaesthetists, radiographers, laboratory staff, nursing staff and paediatricians. The arena of practice includes the labour ward, the postnatal ward, accident and emergency department, laboratories, theatres and radiology reporting rooms. The research took place in the period 2009-2011 following the introduction of the European Work Time Directive (EWTD). As discussed in chapter 2, EWTD is a mandate to EU countries to reduce the

hours worked by junior doctors for patient safety considerations. This directive presented a problem for a work system used to operating in a certain way, reliant on junior doctors working long hours and entailed adaptive changes to relationships within it (Barkow et al 1992, Coffey, 2010). Finding out more about the perceptions of professionals affected by adaptive changes in the junior doctors' support network that senior managers had made and/or envisioned, was the stimulus for the research.

This chapter will highlight the

- Epistemology underpinning the research methodology
- Detail the methods employed for sampling; data generation and analysis.
- Purposive sample
- Collecting data
- Ethical implications of insider research, consent and the safeguarding of participants interests.

The chapter concludes and points out how authenticity and credibility grow with the research.

3.1 Epistemological and methodological approach

Constructivist epistemology grounded in a symbolic interactionist perspective formed the platform over which this research was constructed (Strauss & Corbin, 1997, 2008; Clarke, 2005; Charmaz, 2006). Constructivism is the belief that reality is constructed by individuals as they create meaning of their world, contending that everything we know is a product of a reality we

construct when we act with others (Luhmann, 1995; Berger & Luckman, 1966; Krohn, Kuppers and Nowotny, 1990). Symbolic interactionism reflects these knowledge claims and posits that individuals discern meaning (symbols for action) in the language and actions of other persons (Strauss & Corbin, 2008, Blumer, 1969). Symbolic interactionism underpinned the constructivist GT methodology used in the exploration of the Obstetric-Paediatric interface.

Symbolic interaction sets grounds for generating theory by understanding that the researcher needs to listen to multiple voices during data generation and interpret meaning during analysis of narratives about spontaneous actions and professional activities of interacting professionals. The research assumption was that in the Obstetric-Paediatric interface where human/human and human/machine interactions shape reality, the interpretive framework provided by the selected constructivist GT methodology would address the emergent complexity (Strauss & Corbin, 2008; Clarke, 2005; Charmaz, 2006) that followed the introduction of EWTD.

Glaser and Strauss (1967) initially described GT methodology to respond to objective science's domination of social science. The classic version of GT as propounded first by Glaser and Strauss together and later separately was devised from positivist perspectives of how to handle qualitative data (Clarke, 2005). The GT orientation has expanded from what a newer group of GT practitioners regard as its positivist roots to a more contemporary constructivist orientation (Clarke, 2005; Charmaz, 2006). For those with a constructivist/feminist orientation, there is little separation between the theory

of symbolic interactionism and the action of grounded theory methods. To them, the two nourish each other. For example, Clarke (2005) has called the methodology symbolic interactionism/grounded theory.

According to symbolic interactionism / grounded theory, professionals enact who they are during interactions. Their recollections of these interactions will unite/ fragment their pasts, give meaning to the present and forecast a future yet to come, suggesting that actions and words used by professionals to describe their worlds are infused with meanings that may have implications for the wider organisation (Clarke, 2005; Timmermans & Tavory, 2010).

The study explored the experiences of staff working in this new system using constructivist GT methods of in-depth interviewing; open, focussed and theoretical coding; memo writing, and creating diagrams in order to build theoretical descriptions (Charmaz, 2006).

3.2 Method

The assumption was that constructivist GT methods have the required flexibility to capture and accommodate aspects of negotiated realities of the Obstetric-Paediatric interface. GT methods such as observation of interactions, focus group work and interviews generate excellent data for theory building in settings similar to the Obstetric-Paediatric interface (Glaser & Strauss, 1967; Clarke, 2005; Charmaz, 2008). To discover how professionals construct their professional worlds and how they use that knowledge to speak, act and change their work environment a 'method for the

job', the in-depth interview, was selected (Foucault, 1972, Clarke, 2005, Kvale, 2008). The conduct of the in-depth discursive interview, question development, analysis and theory building are discussed next.

3.2.1 Data Generation – the in-depth discursive interviews

The interview method has evolved into one of the most widely used methods of data generation. However, the interview method requires a certain level of craft practice. For instance, Rapley observes that:

'We have finally arrived at a format of interviewing I feel most comfortable with. It involves at its most basic asking questions and following up on various things that interviewees raise and allowing them space to talk. It does not involve extraordinary skill, it involves just trying to interact with that specific person; trying to understand their experience, opinion and ideas' (Rapley, 2004: 25).

This suggests that the researcher needs a certain attitude in interview research. Specifically to conduct the research, the researcher must develop empathetic relationships, accepting the participants' views as important to them and being able to imagine being in their shoes.

During the design and up to the start of the research, the researcher increasingly became aware of the self-implication inherent in the research. The conduct and outcomes of the research would hinge critically on the habits of mind the researcher took into the research. With the worldview of participants guiding the research, the interview design with a discursive turn appeared a most appropriate tool to use.

Using an in-depth discursive interview technique, this study generated data and built theory from descriptions of events and incidents in the professional

lives of those who 'work' the Obstetric-Paediatric interface. According to one view:

'A discursive perspective sensitises the interviewer to differences in the discourses of the researcher and the subjects during an interview, and their differential power to define the discourses. A discursive interviewer will be attentive to and in some cases, stimulate confrontations between different discourses in play' (Kvale, 2008: 74-75).

The discursive interview is conditional on the existence of a type relationship between knowledge, research participant and researcher. The relationship must be that of professionals who are keen to work and can stand corrected by collaborating colleagues. The choice of in-depth discursive interview method, an unstructured open-ended yet directed conversation, enabled co-creation of knowledge between two knowledge-seeking persons: participant and researcher (Miller & Glassner, 2006).

Although the in-depth discursive interview does not aim for knowledge extraction from a participant, in keeping with constructed reality, the interview was in the end a result of co-creative process between participant and researcher. Notwithstanding this, the main knowledge creator in each interview was the participant. The researcher was the enabler of the process, meaning that the researcher's job was to open up possible areas of inquiry and invite novel takes on situations.

A caveat was that whenever the researcher's voice was heard more frequently than the participant's voice, there was a possibility of hindering creation of new knowledge. When conducted with this in mind, in-depth

discursive interviews are effective at giving rich and thick descriptions of the participant's lived experiences (Stroh, 2000; Rapley, 2004). There is always potential for collision of worldviews, which adds to the thickening description.

As result of the potential for collision of different worldviews, others have called the in-depth interview, the active interview. Active interviewing implies researcher alertness to the content and emotion of what the participant says and being in a position to respond by matching participant emotion with a choice of appropriate words to deepen the enquiry (Holstein & Gubrium, 2006).

The researcher used such opportunities to enter into the participant's lived world. As such, the act of data generation was not linear. The in-depth discursive interviews under GT methodology grew into an iterant, self-referential and recursive system of inquiry.

According to Strauss & Corbin, the data generation process is:

'A series of evolving sequences of action / interaction that occur over time and space, changing or sometimes remaining the same in response to the situation or context' (Strauss & Corbin, 2008: 163-8).

Negotiating the data generation through these loops and hoops was labour intensive. For this reason, others have called the discursive interview intensive interviewing because it allows limitless exploration of a social subject matter of interest (Charmaz, 2006). However, being interactionist in orientation, GT methods could give more attention to action at the expense of lived experiences and context (Clarke, 2005; Charmaz, 2006; Timmermans &

Tavory, 2010). To address this and maintain the intensity of the interview, from the inception, the research design acknowledged the conceptual ethnographic roots of GT methodology and pragmatically exploited them without turning the research into an ethnographic study. Awareness of this position enabled the researcher to pay attention to the situated context of the research. One could understand the reality of the Obstetric-Paediatric interface not only through actions but also through the professional language used in 'storying' and in the structure of professional relationships (Fontana & Frey, 2008) the language described.

Additionally, effective in-depth discursive interviews surface submerged voices. To empower the participant, the researcher conducted interviews in such way as to make it feasible for the participant to reclaim the construction of reality from the researcher at any time during the interview (Kincheloe & Berry, 2004; Gibson, 2010).

To maintain intense yet active participation in the discursive interview, the researcher kept in mind the notion that discursive interviews have potential for an emancipatory orientation or collaborative action. In other words, the researcher enables personal and participant learning about the way the world is organised in the course of knowledge creation. Emancipation and collaboration are critical theory touchstones rendering researching with participants as being far from value neutral (Gibson, 2010). In contrast, structured interviews with a prescriptive schedule would limit the explored area to one chosen by the researcher (Kvale, 1997).

How the craft of GT interviewing happens, is equally important because knowledge creation apart from being a conversation and enabling learning; is also a generator of practice (Cicourel, 1964; Bourdieu, 2003). Cicourel, has pointed out the hidden but influential role of assumptions in research:

'The very conditions of obtaining data that make use of typical motives, cues, roles etc and the typical meaning he imputes to them, yet the structures of these common sense courses of action are notions which the sociological observer takes for granted, treats as self evident. But they are just the notions which the sociologist must analyze and study empirically if he desires rigorous measurement' (Cicourel, 1964:192-193).

Strauss & Corbin have advised that researchers pay attention to what they describe as activities or sub-processes. Sub-processes power the research and may have unpredictable influence on the quality of the research outcome. Strauss & Corbin further define research sub-processes as *'Individual tactics, strategies and routine actions that make up the larger act'* (Strauss & Corbin, 1998:169). Clarke (2005) calls them simply other major processes because they make an important contribution and can change the nature of created knowledge.

To enhance awareness, the researcher applied a number of methods, particularly observation and reflection, to answer the other procedural demands related to research. For instance, contacting participants was not entirely straightforward because professionals are busy people and one can unintentionally come across as coercive. The use of secretarial help for transcription had the potential to surface power differentials and potential to breach confidentiality. The threat of unexpected intrusion on the quality of the discursive interview could not be eliminated during interviewing because the interview room is a shared space in which anyone could enter.

Furthermore, face to face interviewing is not just another conversation; it demands that the researcher thinks through the questions and nature of interactions and show genuine interest in the participants' views (Lofland et al 2006). In keeping the openness of GT to other methods, the research borrowed from the creative interview (Clarke, 2005). For instance, although the in-depth discursive interview is a collaborative effort, the nature of the language exchanged during the interview does contribute to how participants re-create their lives (Clarke, 2005; Charmaz, 2006; Jaworski & Coupland, 2008).

In the Obstetric-Paediatric interface, each interview narrowed down to the participant's area of interest, which further confounded the possibility of recovering some sort of 'universal 'truth' from interviews. Nonetheless, it enhanced the complexity of Obstetric-Paediatric interface social system. Whatever emerged was provisional and open to further refinement by other participants in keeping with the GT methodology.

3.2.2 Interview procedure

The interviewer welcomed the participant and restated the purpose of the interview according to the protocol in the appendix II (Lofland et al 2006). Although it is important to think through the questions carefully, discursive interviewing is not an exchange of questions and answers. It is a purposive relationship of asking mostly open-ended questions (what, how), listening intently and responding with more exploratory questions.

To accomplish early rapport, invariably there is an observational element to each interview (Lofland et al, 2006). The posture, eye movements, breathing pattern and tonality of the participants are symbols to indicate when the interaction inherent through interviewing should start. Sometimes the trigger question was reframed quickly in acknowledgement of the 'body language' of the participant for example.

The researcher also could answer questions from participants during the interview, which would go against most interviewing techniques. However, in discursive interviewing, it is important that the participant is empowered to reclaim the authoritative ground by correcting the researcher. Keeping informal (field) notes of the context and incidents of each interview is an important skill and with participants' permission, notes were kept even though they did not supplement the interview (Ryen, 2007; Clarke, 2005).

Productive, in-depth discursive interviews techniques are a powerful approach to a certain level of good person-to-person conversation.

'When two people talk with each other and when that talk is at its most robust, the scale of their conversation is typically small and indeed, intimate: the structure of the conversation is dynamic and interactive; their participation in the conversation is equal and inclusive and their approach to the conversation is focused and intentional'(Groysberg & Slind, 2012:3).

In GT in-depth discursive interviews, it is important to establish a state of equi-partition of energy between participant and researcher or a state of equi-empathy in which care is bidirectional. The researcher needed to transfer skills from clinical practice where the focus is on meeting the patient and introducing them quickly to the system of medical diagnosis and treatment.

The researcher had to remain aware that the power differential inherent in doctor-patient relationship would be unattainable and indeed if attainable, could be counter-productive in an in-depth discursive interview relationship. In clinical situations, empathy flows down from the carer to the unwell (Hojat, 2007).

Understanding grows out of mentally stimulating how it feels like to be in the participant's shoes and setting up conditions that enable the participant to simulate reflectively how it feels like to be in the interviewer's shoes. This state of heightened interactive awareness or intersubjectivity (Blumer, 1969) is returned in equal measure as a state of shared reality grows through out the interview. The researcher maintained this level of equi-empathy through reflective writing about researcher positionality during each part of the research and being reflectively aware of the self in presence of the participant during the interview. Each interview was an active reflectively simulated engagement with each participant. For that hour, nothing outside of that interview mattered. One professional who had to keep the pager on was called away on two occasions dividing the interview into three parts.

By their intimacy, in-depth discursive interviews set ambiguous expectations. The success and outcome of qualitative research may hinge on the conversational balance achieved between interview participant and researcher. For this reason, although researchers doing interviews look forward to an illuminating conversation, the quality of the ensuing conversation in an interview could have a pervasive influence on the quality of resultant data.

Since interview, success was reliant on rapport building, prior to the start of interviews, the researcher used the time before the interview to clarify the position of researcher as student and as senior colleague with each participant. The areas discussed included being colleague/student; attending to training requirements for the research and aligning research with University and Trust governance structures that will be discussed further below.

3.2.3 Question development (Appendix III (a))

A requirement in in-depth interviewing is for the researcher is to ask, attend, listen actively (Rapley, 2004) and at times respond. The most important question is not the one that got the 'best' expected response from each participant but the question that opened the door into the participant's lived world. Although there are no must ask questions, in in-depth discursive interviews nonetheless, trigger questions are crucial to starting interviews.

Trigger questions are open-ended in keeping with the exploratory nature of the enquiry (Charmaz, 2006, Kvale & Brinkman, 2009). Open-ended questions demand a long answer to a question. Common trigger questions are questions that string the past to the present and disappear into an imagined future. For example 'tell me about how you came to work in the Obstetric-Paediatric' or ' what do you see as the challenges in your work place, how have those come about and what does the future hold?'. The answer to such a question should generate subsequent questions and also could narrow the area of interest and deepen the inquiry (Stroh, 2000) (appendix 1: Interview schedule).

3.2.4 Analysis

Data generation and analysis went hand in hand. There was no separation between generating data, analysing that data and writing the report (Dey, 2007; Charmaz, 2006). In GT methodology, there is no linear approach to data generation and analysis. According to Creswell:

'The contour is best represented in a spiral image, a data analysis spiral.... to analyse qualitative data, the researcher engages in the process of moving in analytic circles rather than using fixed linear approach. One enters with data of text or images (...) and exists with an account or a narrative. In between, the researcher touches on several facets and circles around and around' (Creswell, 2007:150)

The methodology should have the flexibility of the spiral, going forward and coming back on itself. Data management consisted of reading all interview transcribed texts, creation of folders and converting these into computer files. Because of the accessibility of the computer record, it was possible to go back to relevant data for further analysis.

Quite early on the research, the researcher realized that the triple contingency of interviewing, initial analysis and drafting the report were labour intensive activities which required structure. Giving structure to the emerging story and grounding conclusions in data was not an easy task to a mind trained to pick the 'one right answer'. Supervisors' support came in most useful at this time. While the primary duty of supervisors was to ensure proper conduct of the research on behalf of the University, they also acted as mirror of researcher thinking, mentors to a fledgling professional career and a critical friend to someone undertaking a difficult piece of research. The initial analysis took time. Actually, although initial analysis may sound like a cursory examination

of data, my supervisors advised to take this step seriously because it was the foundation of research.

Supervision enabled a process of remaining alive to the idea that GT research was about emerging concepts rather than merely breaking down the data (Strauss & Corbin, 1998; Holton, 2010). Supervision advised that the analytic processes, which were aligned to constructivist GT approaches suggested by Charmaz (2006), depended on reflection through memo writing for credibility and authenticity. 'Start memo writing and diagrams' one e-mail said.

In other words, the unique and relevant emerging story was dependant on researcher mental agility. Only with mental agility, could questions be generated that would open up new areas of inquiry. In keeping with participatory inquiry, the next participant was identified from the questions that needed answering and a date for the next interview mutually agreed on.

3.2.4.1 Initial analysis and memoing (Appendix IV (a))

On conclusion of the interview, the interview was down loaded from a DS 50 audio recorder into the PC and the two records were kept separately. The research followed the advice of Fontana and Frey (2008) who have suggested that the aim of the interview is to get the multiple perspectives of the various subjects and put these forward for discussion rather than glossed over.

In keeping with this advice, once available, the transcript was uploaded on to the HyperResearch platform to start initial coding and general thematic analysis. Coding has been defined as *'naming segments of data with a label*

that categorises, summarises and accounts for each piece of data' (Charmaz, 2006:43). This was not an easy task for someone who was using grounded theory coding for the first time. To improve data examination at initial coding, the researcher read and listened simultaneously to the transcript and the recorded interview for general themes, which were followed by open coding and question development. Initial coding consisted of line-by-line and segmental coding (Charmaz, 2006). What came as a surprise was the length of time reading, listening and coding data took. It was like having two perspectives of the same reality, one auditory and one visual. The spoken word is different from the written word.

During open coding, the researcher generated nearly a thousand codes, which the HyperResearch software tabulated. In other words, initial and open coding of data in this research lead to a diffuse illumination of the Obstetric-Paediatric interface indicating the breadth and complexity of phenomenon. To focus the illumination, open coding of the first and subsequent interviews assisted by memo writing opened up the data to more theoretical coding in which codes were merged or grouped into thematic sub-categories and then in turn categories. At this time, it became useful to think about other disciplines for comparison, something against which classical grounded theory advises. According to classical GT thinking, imagining outside of data robs researcher of making a discovery from data (Glaser 1992).

In this study, theoretical sampling or imagining outside of data deepened inquiry. Unlike the advice of Strauss & Corbin, the researcher went with

Clarke (2005) and Charmaz (2006) and supplemented further reading around the major discourses to be more open to other meanings professionals imply when they story the Obstetric-Paediatric interface.

Certain words stood out in initial analysis. The story of the Obstetric-Paediatric interface was defined by value-laden words such as responsibility, competences, caring etc which formed initial codes. To understand these words better, each word attracted a map, which led to other words, yielding an inter-joined cluster of codes leading to sub-categories. After reflective reading, followed by further memo writing, the interpretive theory about Obstetric-Paediatric started emerging. The mapping stimulated more theoretical sampling during interviews. Charmaz (2006) considers theoretical sensitivity in constructivist GT to refer to the researcher's intuitive and interpretive analysis, which allows more researcher sensitivity to emergent theory.

To ground emergent theory within the interview data, the researcher employed diagrams. Diagramming further articulated the distinction between the concepts the researcher brought into the research situation, from what researcher discovered after being in relationship with interviewee (s) and their data (Kvale & Brinkman, 2009).

3.2.4.2 More focused memo-writing (Appendix IV (b))

In keeping with the exploratory nature of the research process, memo writing turned to the social world of the Obstetric-Paediatric interface. For instance, through analysis of words meaning 'boundaries', such as not offending

others, being a midwife, structural boundaries started appearing revealing a well-demarcated service. The research started seeing structure within the descriptive language of participants, indicating a constructed reality, a concept that is central to constructivist GT methodology.

In other words, more focused memo writing enables the researcher to see the unique differences in how people exercise discretion through their unique interpretation rules and regulations to suit their unique circumstances. According to Clarke (2005), from interviews it is possible to have an idea of

'how people organise themselves in the face of others trying to organise them differently,... broader structural situations ...in part through acting, producing and responding discourses' (Clarke, 2005:109).

Through imagining how participants have organised themselves in spite of others trying to organise them yielded alternative diagrammable structures, which strengthened category properties through trying out possible connections for fit.

3.2.4.3 Diagrams

Several diagrams of interrelationships offer a visual representation of the research area and enable the researcher to start building connections between concepts. HyperResearch software proved quite useful in the development of the emerging theory. Some diagrams were theoretically quite weak and may have reflected the researcher's prior conceptions of how the research area is organised indicating that researcher was not immune to prior theoretical contamination. With reflection and moving concepts around as they were discovered within the data, diagrams that were more

sophisticated emerged. The more sophisticated diagrams were those whose examination gave a feeling that they connected and enriched the properties and dimensions of the core and major categories. Appendix IV (C): Diagrams, is an example showing the development of one of the categories.

3.2.4.4 Theory building

Theoretical sensitivity is an important concept in GT data generation and analysis. Theoretical sensitivity is the notion of the researcher being alert to theoretical promise within the generated data and following these threads through theoretical sampling. Charmaz defines theoretical sensitivity as:

'We look at studied life from multiple vantage points, make comparisons, follow leads and build on ideas. Because you chart your direction through acts of theorising, you may not be able to foresee endpoints or stops along the way' (Charmaz, 2006: 135).

During interviews, the tool that enhances sensitivity is theoretical sampling.

Theoretical sampling in turn enhances theoretical sensitivity. Theoretical sampling in this research was actually two separate processes. Firstly, theoretical sampling initially involved expanding the interview to include Accident and Emergency, extending the sample to Radiography, Laboratory services and Anaesthetics. With the flexibility of GT, at any stage of the research, the researcher could go back to the interviewee if necessary and probe deeper, code, memo write, and develop questions for the next participant. Secondly, memo writing and diagramming and theoretical sampling consisted of picking comparative data from the twelve interviews and reading around the emerging themes, enriched by researcher theoretical sensitivity to emerging theory about the Hospital@Night.

As the research progressed, following open coding, memo writing and theoretical coding new questions emerged which initiated the conversation with the next participant. the purpose of the research, the relevance to the emerging theory and possible promise of alternative insights influenced the choice of who to interview next. In the next section, the discussion addresses the concept of the purposive sample, the location of the sample amongst professionals and the role of theoretical sampling in the management of the purposive sample.

3.3 A purposive sample

Twelve experienced professionals from midwifery, obstetrics, nursing, radiography, theatres and laboratory participated in the research and who had worked in the Obstetric-Paediatric interface for over one year (which excludes doctors at SHO grade) made up the expected purposive sample.

Table1: The participant characteristics of the purposive sample

Participant	Characteristics
1. Midwife 1	Experienced professional with five years experience
2. Midwife 2	Experienced professional with over four years experience in the labour ward
3. Midwife 3	Experienced professional with over 15 years experience
4. Midwife 4	Experienced Midwife with over 15 years experience
5. Midwife 5	Midwife manager with over 20 years experience
6. Senior nurse	Experienced Emergency nursing professional with over 20 years experience
7. Senior Radiographer	Senior radiographer with over 15 years experience
8. Senior Medical Laboratory Scientists	Has been scientist for over 30 years
9. Anaesthetist 2	Anaesthetic assistant of over 15 years experience
10. Anaesthetist 1	Anaesthetist with over 20 years experience in the UK and developing World
11. Obstetrician 2	Experienced Obstetric consultant with over 20 years experience

12. Obstetrician 1	Experienced Obstetric consultant with over 20 years experience
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The extension of the study from doctors to midwives and then to other professionals also opened up the possibility that the wider inter-professional community of practice will find something that may apply to their profession.

The notion of transferability suggests that after reading the research, other professionals may want to take the relevant bits of the research into their area of practice, thus *'making those unique aspects transferable to other contexts'* (Seale, 2000:107). In this regard, it could be claimed that the researcher located the sample for fulfilling the aim of elucidating the unique aspects of the 'Hospital@Night. In reporting the research about a large interprofessional team, the researcher has left readers of the research to identify what matters to them.

The purposive sampling strategy met the objective of using in-depth interviews to gather the perceptions of frontline professionals who had salient experience of the Obstetric-Paediatric interface (Creswell & Plano Clarke, 2007). The plan was then to report findings from these interactions in such a way as to leave it up to the reader of the report to see how the findings of the study could apply to their unique circumstances and context.

The decision about who to interview was made in tandem with the decision to explore the Obstetric-Paediatric interface using in-depth discursive interviews

(Marshall & Rossman, 2006). For this reason, being an exploratory qualitative research project, sampling was non-probabilistic (Higginbottom, 2004).

Sampling did not start with numbers of professionals who would make up the sample but with the purpose of the research, which was to explore the experience of working in the hospital at night. Even though participants had expressed interest to participate in the research, with the purposive sampling technique also called judgement sampling, the researcher made judgements at certain points or critical junctures of the research about with whom to explore the interface (Morse, 2010:237).

The researcher made the judgement on the purposive sample because of a belief that frontline professionals who met the entry criteria had expert knowledge of the knowledge needs of the Obstetric-Paediatric interface. Furthermore, the researcher made a judgement about whom to interview next. However, who to sample, when to do so and what to ask were determined by the progression of the research in keeping with the theoretical sampling inherent within the iterant nature of GT methodology.

The purposive sampling technique had three components, locating the convenient sample, purposive sampling during the research and theoretical sampling.

3.3.1 Locating the convenient sample

The initial step was to locate the sample as frontline professionals who formed the multidisciplinary team providing care in Obstetric-Paediatric interface

(Clarke, 2005: 86). These professionals from different disciplines shared the characteristic of experiencing change in their work environment at the same time following the reduction in junior doctors' hours. The sampling strategy was an iterant process, which started with locating frontline professionals working in the Obstetric-Paediatric interface who would participate in the research with minimal inconvenience to them (Morse, 2010).

The researcher posted the advertisement of the research on the notice boards of the theoretically relevant departments. The researcher publicised the study on two occasions during interdepartmental meetings to ensure that only those willing to spare time for the research would find time to respond to the advertisement. Through the information leaflet, participants knew that they may be required on two or even three occasions if they were able to shade newer light on the emerging research theory because of their experience.

3.3.2 Purposive sampling during the research

While the numbers of individual participants is important, the strategy of making an excellent conversation with a purpose, relevance and promise of alternative insights is even more important. To enhance credibility, participants were recruited for their insights and for their differences in experiencing the Hospital@Night system of the Obstetric-Paediatric interface. In other words, the researcher recognised that the research was 'inherently biased' towards authenticity or a unique story to tell (Morse, 2010:234). The strategy was to let the participant tell their story while gently moving them from the general to the specific.

3.3.3 Theoretical sampling

Theoretical sampling means seeking out pertinent data including data that may highlight differences to develop emerging theory. Theoretical sampling elaborates similarities and differences through developing each category's properties until no new properties emerge (Charmaz, 2006: 97). The researcher used the analysis of interview data and reflective reading around emergent theory to decide which participant to call next who may share contrasting data on the Obstetric-Paediatric interface.

Although qualitative research is not about numbers, numbers of participants are important and controversial in GT based interviews. Charmaz (2006) suggests over 30 participants. Creswell emphasising theoretical saturation suggests 20-30 participants (Creswell, 2007). Equally convincing is the suggestion that ten participants for small-circumscribed studies are a good sample.

Here the emphasis was on how different parts of interviews were handled in analysis to surface 'the local context of idiosyncratic character' of the Obstetric-Paediatric system (Grbich, 2007, Dey, 2007). Ten interviewees were considered adequate for this study because being a mixture of disciplines they would represent a diversity of perspectives. However, although it was felt that ten in-depth interviews could generate a theoretical sufficiency for the study, since twelve individuals volunteered and agreed to the interview, twelve professionals participated.

In summary, it was not required of a purposive sample to achieve homogeneity of representation. Representation was adequate in that participants had experience of and were able to discuss the phenomenon of interest (Morse, 2010, Silverman, 2005). These actions in generating a purposive sample enhanced transferability of findings to other contexts. The researcher entered the individual worlds, interacted through listening, questioning and being open to correction. Each interaction was an opportunity for a shared 'description, exposition, insight, blending of elements' (Ellingson, 2011: 600) of the Hospital@Night. Before ethical considerations are discussed, the next section discusses how using technology, data was collected and organised.

3.4 Collecting and organising data

To capture the different realities of the Obstetric-Paediatric interface, in which human and non-human elements co-create reality, the research was organised with technological assistance. In keeping with situational analysis and mapping, unlike the classical GT, constructivist GT cannot ignore the role of nonhuman elements and their contribution and influence of the research trajectory (Clarke, 2005) (Appendix III).

The modes of data handling and generation used in the research were

1. Olympus DS 50 Digital Voice Recorder
2. Transcribing service
3. HyperResearch/ Hypertranscriber

4. Dragon 12 Naturally speaking

3.4.1 Olympus DS 50 Digital Voice Recorder

Field notes are important in GT (Glaser 2004). However, rather than total reliance on field notes, GT is amenable to electronically collected and stored data (Appendix III (b)).

3.4.2 Transcribing service

Transcriptions of interviews must show that no interviewee voice is marginalised through systematic simplification of the research process (Clarke, 2005). Participants' narratives were unedited in keeping with the study's constructivist orientation (Elliot, 2005). This encouraged the polyphonic voice of the Obstetric-Paediatric interface to emerge (Marcus & Fisher, 1986; Fontana & Frey, 2008). A member of staff who had signed a clause of confidentiality as required by the Research Ethics Committee (see appendix II (e)) transcribed recordings. After proof reading, the researcher sent the interview to the interviewee for participant verification and authentication. On return and after appropriate formatting, the researcher imported the interview into the Hyper Research platform for analysis.

3.4.3 HyperResearch / HyperTranscriber

HyperResearch is a versatile programme that is available for either Windows or Macintosh platform (Appendix III (d)). HyperResearch was easy to use. It was possible to start coding as soon as the transcript was ready. This software also helps build theory with hypothesis tester in keeping with Straussian approach (Grbich, 2007). Most importantly, it has 'excellent

graphics' an important requirement in the work of diagramming (Creswell, 2007).

3.4.4 Dragon naturally speaking

The software is a speech recognition system under licence from Nuance. In making corrections, the analyst re-examined the data, further sensitising researcher to emerging theoretical concepts (Appendix III (e)).

The next section discusses the ethical dilemmas of an insider conducting research and highlights the issues of taking responsibility, becoming accountable, giving credit to participants without exposing them, safeguarding reputations through mutual respect, and making cultural sensitivity part of the research process. Finally, issues of consent and patient safety are highlighted.

3.5 Ethics

The research had National Research Ethics Approval 08/H1305/58. The NREC approval and NHS governance letters are included in appendix I. There were two issues that posed an immediate ethical dilemma. The researcher was an established member of the interdisciplinary team providing care in the Obstetric-Paediatric interface. Secondly, the objective of the research was as part requirement for the award of Doctorate in Professional studies. In other words, the student had also worked in the Obstetric-Paediatric interface as Consultant Paediatrician for nearly twenty years. An insider researcher is any researcher who has pre-existing relationships as owner, manager or colleague to participants (Zeni, 1998).

Hammersley warns that researchers run the risk of contaminating their work as researchers if they choose not to keep their prior knowledge about the research area in check (Hammersley, 2004). Others feel that shared values and attitudes make a community and it is worthwhile exploring these from the perspectives of shared values and attitudes.

The researcher had interconnections within the interface through values and attitudes about healthcare. This brought into focus questions about the purpose of the research, the conduct of the research process and the use of the results of the research (Loxley & Seery, 2008). In other words, authenticity would win the day (Seale, 2000). The purpose of the research, which is to improve local conditions, united the participants and the researcher, making insider researching a value-laden activity. As such, insider research brings up ethical issues of responsibility, accountability, credit, reputations, cultural sensitivity and informed consent.

3.5.1 Taking responsibility

From the inception of the study, the researcher accepted the responsibility to use research methods appropriately because research had become a potential vehicle for bringing about change. The researcher ensured that the research got institutional review approval; the university appointed supervisors who the researcher went to for advice. Before research commenced, the researcher ensured that Trust research governance guidelines had been followed.

3.5.2 Becoming accountable

Every interview was sent back to professionals for verification and correction.

Researching from the inside of the organisation meant replacing objectivity of the outsider with self-reflexivity. According Grbich

'self-reflexivity involves a heightened awareness of the self in the process of knowledge creation, a clarification of how ones beliefs have been socially constructed and how these values are impacting on interactions, data collection and data analysis in research settings' (Grbich, 2007:10).

Participants were informed through out the research. The researcher took responsibility for the findings. The findings have been publicised through three lectures to which participants were invited.

3.5.3 Giving credit to participants while protecting identities

Although participants were identifiable only to the researcher, the researcher acknowledged the participatory nature of the research. Twelve participants were interviewed and anonymised as senior midwife 1, 2, 3, 4, 5; Obstetrician, 1 and 2; Anaesthetist 1 and 2; senior nurse, Radiographer and Laboratory Scientist. Apart from participants, only the researcher and the interview transcriber knew the identities of participants. Indeed, since they did not meet as group, they were not given an opportunity to identify with other participants.

Once interviews had been recorded, they were password protected and stored (Appendix II (f)). Nonetheless, this does not preclude that other people may identify professionals because some of the interviews were reported verbatim (Potts, 2008). Participants were informed of this possibility through the information leaflet and at the start of the interview (Appendix II (c)).

3.5.4 Safeguarding reputations

During the research and during analysis, the starting point was researcher appreciation how much professionals had sacrificed in order to contribute to knowledge. Analysis maintained a respectful perspective towards participants, patients and institution that had made the research possible while keeping in mind the purpose of the research.

Professionals were informed through the leaflet that the interpretation of the research up to the research. From an appreciative perspective, there were things that the organisation was excelling at and also there were areas where improvements could be made. The researcher's position was to report areas of excellence as well as areas that needed improvement.

3.5.5 Making cultural sensitivity part of the craft

There were gender, educational, religious and racial differences between researcher and participants. Although, these were not part of the research, they could not be ignored. Through out the research the researcher acknowledged the similarities and differences between the researcher and each participant's perspective. Through memoing, mapping and diagramming it was possible to report as close as possible to the participants perspective. Maintaining a qualitatively appropriate ethical stance is the more complex part of a complex process.

As an insider researcher, working within the organisation in a senior capacity and who planned to continue doing so, the research offered a further dilemma. The researcher had to admit to him self repeatedly about having

some pre understanding of the organisation (Smyth & Holian, 2008). Clarke

summarises the dilemma succinctly:

'We cannot help but come to almost any research project already 'knowing' in some ways, already inflicted, already affected, already 'infected' (Clarke, 2005).

To avoid coming to premature conclusions as soon as preconceptions were confirmed, the researcher stayed close to the research process through keeping a reflective narrative of the research and having excellent external supervision.

External supervisors ensured that emerging categories were grounded within the gathered data and not researcher prior knowledge of the organisation. Being unable to forego prior assumptions about the world can contribute to poor decision-making or 'dysrationalia' (Stanovitch, 2009: 3-19). In qualitative interpretation 'dysrationalia' presents as arriving at conclusions with limited reflection manifesting as failure to acknowledge biased reasoning and overconfidence in ones conclusions.

Yet we can only understand the story of our interviewees if we have shared historical roots. Understanding of the local organisational culture was a local construct. The researcher understood that professionals would consent to participating in the research without thinking that their decision has long-term consequences for them, whether favourable or unfavourable. Confidentiality was for the researcher to maintain and consent for participants to give or withdraw. In this research, consent was treated as provisional through out the interview.

3.5.6 Informed consent

Informed consent to participate in research is consent given by participants to take part in a research project based on having sufficient information about the purposes and nature of the research and the involvement required (Walliman, 2005). Participants received an information sheet, which they signed as signifier of understanding of the research process and their involvement in it (Landon et al 2003:1185) (Appendix II d). A participation consent form NRES was signed next (Appendix II c).

3.5.7 Informed refusal

As a senior person in the organisation, the researcher was an insider researcher (Sikes & Potts, 2008). The researcher was aware of the possible 'issues of conflict of interest that may arise for researcher and participants. It was made clear to participants that consenting to participating in the research did not mean that they '*consented to something different*' (Potts, 2008:162). If at anytime they felt that they were participating in something other than what they had consented to, participants were free to with draw without incurring the researcher's indignation.

Professionals who expressed an interest to participate were informed in more detail about the study intentions and its potential benefits. At this time, they were offered the facility that they could refuse to further participate in the study without prejudice or a need to give reasons why they had decided not to do so (McCullough and Chervarnak, 2007).

Given the safeguards that were in place to protect participants, this approach posed its own ethical dilemmas. In-depth interviews address personal constructions of historical events. Events, which may appear to the interviewer as innocuous, might have strong meanings, which are very personal for the interviewee. Such emotions are genuinely authentic. Shalev (2009) for instance points out that:

'numerous studies have established the frequent occurrence of post-traumatic stress disorder (PTSD) among individual exposed to traumas including wars, disasters, terrorist attacks, road traffic accidents and inter-personal violence' (Shalev, 2009:687)

Moreover, when people feel emotional security they may let go of a fact or an act that they had kept away from the others. For instance, in the Obstetric-Paediatric interface, things happen rather quickly and sometimes professionals may have never had time to deal with the emotional experience. Professionals may then become distressed.

The plan was to listen, give space to the participant and security to re-experience the emotion without interruption and once the participant indicated that the emotional storm had had its time offer suggestions of whether to continue with the interview or not. The two professionals who recalled distressing moments decided to continue with the interview and confirmed that they knew how to access counselling services, which are available to all employees of the Trust.

3.5.8 Handling safety issues for patients

In-depth discursive interviews build rapport and could lead participants to unwittingly disclosing issues related to patient safety. Participants received an information sheet on recruitment. The information sheet indicated that disclosures of examples of negligent or unsafe practice would have to be dealt with through Trust procedures. In keeping with the suggestions contained in the 'To Err is Human' (Corrigan et al, 2001), the researcher had a responsibility to encourage professionals to make voluntary reports of unsafe practices or procedures if they should be disclosed. The participants were also made aware of researcher obligation to report any concerns that may arise because of the activity of interviewing. In case of an incident, the study planned to follow normal Trust patient safety procedures. No security concern triggered Trust procedures.

3.6 Conclusion

This chapter has covered the iterant nature of qualitative research. The chapter has highlighted the epistemology underpinning the research methodology, detailed the GT methods employed for sampling professional perspectives, data generation through in-depth discursive and analysis.

The chapter furthermore shows how the purpose of the research, which was to find out how frontline professionals described working in the hospital@night of Obstetric-Paediatric interface, determined the sample choice or purposive sample. The chapter has shown how sensitivity to emerging theory guided the sampling procedure or theoretical sampling through deciding who to interview next, what interview to go to and the extant literature that may enhance

deeper reflection and simulation of other possible worlds other than researcher's.

The role of technology in this GT methodology has been highlighted. The methodology has addressed how ethical issues surrounding researcher as organisational insider were used to guide and improve the craftsmanship of the researcher.

Since the research question concerned perceptions of interacting professionals, adopting the constructivist / interactionist Grounded Theory methodology appeared to be the right tool for the job. From the constructivist/ interactionist perspective, the in-depth discursive interview method appeared suitable for generating knowledge about how interacting people negotiate and coordinate action. It was the appropriate process to bring out personal perspectives of frontline professionals working in the hospital@night of the Obstetric-Paediatric interface.

By their intimacy, in-depth discursive interviews can set ambiguous expectations. Since interview success was reliant on rapport building, the researcher spent time clarifying the position of researcher as student and as senior colleague. The researcher gave participants prior knowledge of the knowledge creation process of the research, including design and conduct of in-depth interviews and methods of obtaining and withdrawing consent.

In keeping with GT methodology, there was no separation between generating data, collecting it and analysis. While data emerged from

interviews, different types of technology were set up during different stages of the research to capture data, assist in processing data for initial coding, memo writing and diagramming for theory elaboration. Rather than something that simply enhances researcher's goals, through reframing issues, technology made it easier to open up parts of interviews for deeper reflection at the click of a button.

Sampling decisions about the convenience of the workplace as the research site surfaced ethical issues, particularly the case for insider research and the ethics of consent which been addressed. The researcher introduced prospective participants to the concept of research as learning. The researcher was a student who was undertaking a piece of supervised research. Prospective participants were informed how that the researcher / student had aligned the research proposal with the organisation through satisfying the University and Trust governance structures. Apart from making sure that the researcher understood what had to be done, the researcher complied with regulations to '...ensure approval has been obtained to start the research from someone with appropriate authority' (DoH, 2005: 13).

Findings

The Introduction to findings

The next four chapters cover the findings of the research under three major categories ('Being scared in the night', 'Acquiring night vision' and 'Forming a

nighttime community' and one core category, 'Working in the dark'. The four categories cover aspects of what human action and interaction is in the Obstetric-Paediatric interface (Glaser, 1992; Kell, 2010).

However, in keeping with the advice by Strauss and Corbin, after reading the interviews and coding line by line, for interaction and human action, a paradigm of practice emerged (Strauss & Corbin, 1998). From participant stories focused on lived professional life within this practice paradigm, four categories emerged.

In 'Being scared in the dark', professionals recalled experiences of scary moments of clinical practice. In the second domain, 'Acquiring night vision', professionals shared the unique ways of rational decision making about their respective careers. In the third domain, 'Forming nighttime community', the same professionals shared how they work on creating and keeping a community of practice through interactions with patients and other professionals. The fourth domain, 'Working in the dark', was about profound professional commitment to the purpose of maintaining a service under threat. Through a steady process of looking for commonalities and differences, two things happened, the subcategories emerged and the threads linking and tying together the categories into one story became more noticeable after several attempts at writing and rewriting (Charmaz, 2006).

With reflection, and comments from supervisors, a structureless morass of insights developed structure and became the story of the Obstetric-Paediatric

interface. Theoretical sampling through going back to extant literature and using the experience of researcher to name categories and subcategories enriched the categories. This act alone indicates that although the story is about what professionals said in interviews, it also reflects researcher conceptual understanding of the Obstetric-Paediatric interface rather than a set of immutable truths.

Sensitising concepts of action and interaction did not arise only from the views of the individual practitioners, represented by the categories 'Being scared in the night' and 'Acquiring night vision'; they expanded into the macro world of practice as professionals. This strategy indicates that professionals negotiate meaning not only within their experiences but also within the wider world captured in 'Forming nighttime community' and the core category.

The interviews that took place at a district general hospital involving senior professionals from the obstetric paediatric interface are the ground on which this report is erected. Each category is presented first as the idea behind the category, then the supporting evidence is presented in italics. Grounding in evidence this way lessened the chance of forcing categories over data.

The major categories are:

Chapter 4: Being Scared in the Night.

Being Scared in the Night has six sub-categories; Being alone, Feeling personal Insecurity, Sensing chaos, Feeling unrewarded, Seeing bogeymen, Sensing risk.

Chapter 5: Acquiring Night Vision.

Acquiring Night vision has three subcategories; Being with Mothers, Shedding a light, and Working with Others

Chapter 6: Forming a Night-time Community.

Forming a Nighttime Community has four subcategories; Seeing and acting on strategy risks, Acting with responsiveness, Using time profitably, and Encouraging collaboration.

Chapter 7: The core category of Working in the Dark.

The core category, Working in the Dark has three sub-categories; Feeling a bit Lost, Losing Things in the Night, and Fearful Professionals Seeing Risks

Chapter 4

'Being scared in the night'

4 Introduction

The category of 'Being scared in the night, describes the elements of the participants' experience of working in the Hospital@Night that are unsettling or troubling to their sense of wellbeing and confidence in their role. The issues are discussed through an understanding of the 'Hospital at Night' as a 'work system'. A work system consists of elements of the job role that the healthcare provider uses, encounters and experiences to perform his or her work (Carayon, Alvarado and Hundt 2007: 61-2).

According to these authors, 'the work system consists of persons, tasks, tools and technology, physical environment and organisational conditions which are interrelated into a functioning system'. To function effectively the work system is segmented into levels of management (vertical differentiation), and by specialization (horizontal differentiation).

To function efficiently, a work system at whatever level of differentiation develops standard procedures, policies and processes to support operations (Boudreau & Ramstad, 2007). A direct link has been observed between poor outcomes for both patients and healthcare professionals and poor work system conditions. Reported poor outcomes include injuries (Cohen-Mansfield, 1997), stress related illness (Stubbs et al, 1983) and difficulties with retention of professionals.

In 'Being scared in the night', the report maps out some of the problems faced by professionals working in the 'Hospital@Night'. 'Being scared in the night', unveils the difficult questions concerning working during the night at the Obstetric-Paediatric interface through six interconnected sub-categories: 'being alone', 'personal insecurity', 'sensing chaos', 'feeling unrewarded', 'seeing bogeymen' and 'sensing risk'.

'Being alone' reveals that the culture of 'Hospital@Night' consists of committed professionals delivering excellent care who at times experience isolation while working with others. In 'personal insecurity', with shifting public attitudes towards healthcare professionals, participants sketch the ambiguities of violent behaviours towards them in the 'Hospital@Night'. 'Sensing chaos' captures the challenges of working in the 'Hospital@night' as professionals hurtle from task to task.

The category further addresses issues related to human resource management and strategy implementation. 'Feeling unrewarded' describes how professionals subject to the 'Agenda for 'Change' pay structures impacted on their feelings of being valued. 'Seeing Bogeymen' describes the participants perceptions of threat to team integrity from outsiders and 'Sensing risk' concerns perceptions of lack of expertise in 'others' and risks of where learning needs were identified but strategies to remediate the situation were not felt to be acceptable and therefore not taken up.

Table 2: Being scared in the night

Sub-categories of being scared in the night	Being alone Personal insecurity Sensing chaos Feeling unrewarded Seeing bogeymen Sensing risk
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4.1 Being alone

'Being alone' focuses on the experience of loneliness reported by individual professionals working in the 'Hospital@Night'. The interviewees described providing care in a number of locations within the hospital. Inevitably, even the more experienced frequently work with colleagues whom they have never met before and who may hold different positions on care. According to Anaesthetist 1 and 2, they work *'everywhere and with everyone in the hospital'*.

Working with unfamiliar colleagues and their having different viewpoints seemed to enhance 'being alone' and feeling not part of a team. Salas et al (1992), and (2007) *'define a team as*

'Two or more individuals who perform some work related task, interact with one another dynamically, have a shared past and a foreseeable future, and share a common fate' (Salas et al, 804).

According to this definition, teams, do however exist within the 'Hospital at Night'. For example, interviewees described supportive working amongst midwives, but such practices appear to be discipline bound. It seemed that

professions have never integrated and professionals still differentiate along disciplinary lines.

In the 'Hospital@Night', each profession fields a 'team' for the day and night. Each discipline will have 1-3 professionals working with professionals from other professions. The study found that at the heart of 'Being alone' were individuals whose working practices did not specifically encourage team working. The consequence of this was that individuals found themselves exposed to high intensity work with a limited amount of technical support which contributed to a sense of 'being alone'. One participant observed that

'Erm But you find with some of the (staff group), they work different shifts. 'You feel like you're not part of the team'.

(Senior Radiographer)

It seems that the staff of the 'Hospital@Night' have evolved work practices and structures along traditional disciplines. What this participant seems to suggest above is that in terms of feeling supported and integrated in a team, that within this system there is very limited interaction between different disciplines away from direct patient care.

Every work system tries to run tasks from reception to completion as smoothly as possible (Caralyon, 2007). The Hospital@ Night aim has been to do just this. Being alone describes how professionals working within their disciplines at times feel disconnected from the rest of the team. Being alone was experienced when professionals found themselves needing support. They felt

that their work was not shared with others because they were working in isolation. One professional summed up being alone

'we were not working as team'.

(Senior Midwife 1)

When needing support, resultant anxiety relates to lack of a person to call on and also when support is far from the clinical area

'we haven't got a second on-call system...Where we could call somebody in from home if there was someone to call on, they wouldn't get there in time to really help out there...'

(Senior Radiographer)

In the absence of immediate support, critical assessments could be delayed enhancing 'Being scared in the night'. One participant reported that, because of variability in workflow; the work system reaches capacity insufficiency so quickly that professionals have little time to react because

'About eighty percent of the times we are really, busy'.

(Anaesthetist 1)

Further disconnection was related to time schedules. Professionals from different disciplines have different work schedules. Different work schedules may it make it less likely that they will have collective influence on work flow increasing the feeling of 'Being alone'

'You feel like you're not respected at all or they're not taking proper care of you as a member of staff....'

(Senior Radiographer)

The sub-category 'Being alone' suggests that professionals working in the Obstetric-Paediatric interface frequently have limited time to get help, to move into a supportive role, to do other work and to complete tasks which leads to needing support.

'Being alone' indicates that either professionals found themselves working with colleagues who did not have 'sufficient expertise' to deal with an emergent problem or professionals felt that 'support was far away'. According to Lee & Mongan, (2009: 45), 'disconnection is at the centre of the practice of medicine, where individualism rather than team play defines practice'. One participant illustrated what it feels like to be 'needing support' at night as follows

'I can work a day shift and feel as if I haven't been in charge. There's so many senior people around. I can work on nights and feel totally alone. There is that difference...'

(Senior Nurse)

This quote indicates that participants sometimes did not feel that some of their colleagues had sufficient experience needed to deal with the complex emergent problems in the 'Hospital@Night' – enhancing the feeling of 'being alone'.

These findings suggest that the work system of the 'Hospital@Night' seemed simply to replicate the daytime shift but with less staff and therefore less available expertise, leaving individuals 'being alone'. Cross-discipline teamwork did not seem noticeable and the work system seemed heavily reliant on individual training and judgement (Corrigan et al 2001). Some

professionals felt that they were 'practising alone' without much support and seemed to have less control over workflow entailing productivity problems such as personal stress, feelings of insecurity and the sensation of chaos. In the next section, we address the sub-category of personal insecurity.

4.2 Personal insecurity

'Personal insecurity' examines the work environment from a safety perspective. A direct link between patient safety and staff safety has been established (Charney, 2010). Patients who are cared for in insecure institutions have poorer outcomes, which have led some to posit that within a community, a sense of insecurity may lead to vulnerability (Furedi, 2007). A relationship-based typology categorises violence as criminal intent, customer/client or patient, worker on worker and personal relationship. The major confounders of work place security include an accepting attitude of violence against staff by management, decreased numbers of staff, working in isolation, working with violent patients, increased number of acutely ill patients and prioritising worker safety over patient safety (Lipscomb et al, 2010).

A recent government report on violence in the NHS shows that assault on healthcare professionals is increasing (White, 2003). The favoured approach to violence risk management in clinical settings has been 'security training or what Kemshall and Wood (2009) have called a 'better safe than sorry' approach. Government initiatives in healthcare have centred on improving professional resilience through training (Gabe & Elston, 2009). Few studies have however evaluated such training (Simonowitz, 2010). A literature review

by Runyan et al (2000) found that impact analysis of training showed mixed results. The majority of studies indicated the positive aspects of training while half that number showed no effect or a negative impact (Runyan, 2000). Another study found that that one year on after training, professionals showed improved knowledge about safety; however, training about violence was not accompanied by organisational change.

These studies suggest that while change has occurred in several aspects, the hospital environment has not been re-engineered to the same extent. In some hospitals, professionals working the hospital at night provide their own security. In such organisations, the organisation trains and expects senior professionals to maintain security in the hospital. Paradoxically this might draw attention to skills deficit whenever professionals experienced violence (Lispcomb et al 2010).

Furthermore, literature on aggression indicates that neuropsychiatric spectrum disorders such as attention deficit and disruptive behavioural disorders, mood disorders, anxiety, schizophrenia, Tourettes and Intermittent explosive behaviour are quite common in society (Calles, 2011). The context of this study, at the obstetric/paediatric interface, involved patients in extreme pain, anxious partners and an environment of acute stress.

The present study found that the dominant organisational perspective on personal insecurity, from the perspective of the participants, was maintaining security in the hospital through staff training. According to participant,

'security training was the action open to the organisation'.

(Senior Midwife 5)

According to this professional, in addition, there have been structural changes including a locking system on most doors, and CCTV. It could be suggested that to control violence and insecurity, organisations take a behaviourist approach to violence. They train individual professionals to anticipate violence and manage aggressive patients. The participants' accounts described the typology of violence against professionals as essentially patient or partner violence. To some professionals violence was an indicator of the attitudes patients held towards staff. One participant reasoned

'they probably thought oh little blonde nurse. You know, easy prey. She will I take it and won't do anything about it. She's a nurse'.

(Senior Nurse)

From this perspective, it is possible to understand why there would be disquiet about insecurity, particularly in the *'absence of specifically trained security operatives'* as reported by Senior Midwife 5. When two participants Senior Midwives, 1 & 2 found themselves with an aggressive husband, both reported that it was their duty to find ways of Senior Midwife 2 summarised their as *'defusing the situation quickly'*. Underlying this ability of professionals to 'nip it in the bud' however was the question of professional skills. One participant who has never experienced abusive behaviour pointed out that

'it was down to communication with patients'.

(Obstetrician 1)

Indeed, a skills-based formulation of personal risk would draw responsibility towards professional attitudes, training and competence. Worryingly, some studies seem to suggest that violent acts in the work place are under reported because of this (Crownier et al, 1994). Under reporting has been related to fears of perceived professional incompetence (Cembrowicz & Sheppard 2002; Beale (1999).

It seemed that some professionals adopted a tolerant approach to patient violence by re-framing it as the assailant 'failing to cope' with the situation of ill health. This approach appears to be a stance borne out of experience or practical wisdom. According to one professional, apart from ill health and partner pain, waiting was an external trigger of violence.

'Erm...and you could be attacked because ... patients and ...relatives on their own and some can get a bit angry and upset. Perhaps they've been waiting a long time and they vent their frustration on you'.

(Senior Radiographer)

The previous government (DoH, 2006) National Quality Framework initiated a waiting time initiative of 30 minutes in Outpatient's department and 4 hours in Accident and Emergency. In the 'Hospital at Night', participants felt that the expectation, and failure, of prompt service increased the risk of violence. Others also commented why violence happened and referred to potential lack of skill in defusing the situation on the part of the professional.

'Well, it's quite stressful because at the end of the day, you know; you can see where they're coming from.'

(Senior Midwife 2)

Furthermore, Senior Midwife 2 echoed Obstetrician 1 by acknowledging that

'You know, and I think that's down to your communication skills and, you know acknowledging that they're upset...'

(Obstetrician1)

Within this humanistic domain of understanding the failing to cope on the part of patients or relatives, professionals were able to anticipate antecedents to violence. The participants pointed to other possible triggers of violence; alcohol, the professional working alone and partner violence. Professionals described how alcohol abuse among patients increased their sense of insecurity. One interviewee was concerned when (s)he found herself alone with a patient who was

'drunk and abusive and yet no one had warned me about the patient'.

(Senior Radiographer)

Violence was also reported as more likely when the professional was working alone and includes sexual violence.

'He groped my backside. My buttocks and went to grope something else as well, the front and I just knocked his hand away... I took him to Court and got £50. I was fuming'.

(Senior Nurse)

Later on while working in the same department, this same participant experienced physical assault. Studies indicate that professionals in frontline services are particularly vulnerable to multiple attacks (Charney, 2009). Part

of the Hospital at Night work system is to encourage partners to be present and support mothers at delivery, however this element of good practice also has its consequences as relatives were also reported as being involved in violence.

'I think partners find it very difficult and they can't do anything about it and so the only way they can do anything about it is to start kicking off at the midwife, but you also know that the woman, doesn't need anything for that pain relief and wants to cope but she's being subtly pressured... because her partner can't cope with it'.

(Senior Midwife 2)

The sub-category of 'personal insecurity' relates to reports that violence by patient/partner was directed towards often unsuspecting staff. There was a dilemma between two discourses of violence. One perspective was that experiencing violence represented limited competence among staff to prevent or defuse the situation. Organisations tend to provide staff training to strengthen such competence in a belief that such trained staff would deal with violence in the absence of a professionalised security team.

Another perspective was a more humanistic perspective of violence being a symptom of patients' or partners' failure to cope: There was no evidence of participants feeling that they worked in a climate of reconciling these views. It was clear however, that participants could experience the 'Hospital at Night' as threatening their personal security. The next section explores what lessons can be learnt from professionals supporting each other and how sometimes this 'good' action may add to personal insecurity.

4.3 Sensing Chaos

In a work system, the relationship between activities and the time it takes to complete them is important (Kaplan & Anderson, 2007). A work system that is not able to estimate its capacity can be both costly to run and even unsafe. The sub category 'Sensing chaos' follows professionals in the 'Hospital at Night' as they try to meet in a timely fashion the needs of their patients. Professionals describe how they meet their goal of a safe system through improvising, cutting down the number of steps required in some processes and working with limited evidence to meet patient demands while trying to maintain a safe system.

Emergent demands in healthcare require that professionals pay attention to more than one aspect of care at any one time (Corrigan et al, 2000). This leaves professionals in a dilemma about what to do more of or less of, given the constraints on time (Stern, 2006). Importantly, a recent study has attributed *'patient mortality to decreased numbers of Registered Nurses'* (Needleman et al, 2011:1037).

A 'Sensation of chaos', according to some, is due to fluidity and complexity of situations which lead to competing demands and differences of opinion. One definition of complexity is the sensation of indecision and incompleteness (Coveney & Highfield, 1995). The participants reported having to respond to the unexpected frequently. For example, patients may arrive in one area unannounced forcing professionals to improvise and carry out tasks in less time

'It makes it very variable. It can make it very stressful. '
(Senior Radiographer)

Vigilance to the possibility of chaos is another approach professionals use to maintain safety. For example, laboratory professionals ensure proper sample labelling.

'Their 'other' duty is to identify poorly labelled clinical samples at reception while ensuring work is done as quickly as possible'
(Senior Laboratory Scientist)

The study found that other professionals were similarly being vigilant with respect to spotting errors in medication, or x-ray form entries. These activities though not explicitly part of their job nonetheless take a significant amount of time and contribute to 'Sensing chaos' in 'Hospital at Night'. The study also found that resource intensive problems such as airway management require professionals to improvise. Using limited information, they have to prioritise in a timely way and in the best way they can.

'difficult to be in two different places at the same time'
(Anaesthetist 1)

Apart from improving, professionals find themselves 'cutting steps in a process'. One example given was breaking bad news. One professional explained how difficult it could be to break bad news in a busy unit while keeping up with unpredictable workflow.

'it does create more stress because I feel you need to provide somebody to actually be with the family as well'.

(Senior Nurse)

Another example in which professionals cut steps is handing over patients. Professionals hand over a paper summary of the current patient's condition. This strategy works well but sometimes as professionals exchange information during handover, incidences involving patients have happened. Another way of 'cutting down the steps' in the process when professionals sense chaos building up is by asking some one to help with tasks. This usually involves 'simple tasks' such as feeding a baby. Professionals recounted that mistakes do happen during performance of such routine tasks as professionals try to perform two to three tasks at the same time, leading to 'Sensing chaos'.

A third way in which 'Sensing chaos' was generated was when professionals had to respond to a quick succession of tasks and have to perform with limited information. Performing many tasks in quick succession can be disorientating

'So I summoned help. Got a resuscitaire in the room because she was actually in a room that wasn't equipped for the delivery'. 'So he came in. He was very panicked. He was tired, very panicked. He'd just come in. He didn't know what was happening. We just weren't working...'

(Senior Midwife 1)

Limited sleep and rest can both be disorientating and contribute to chaos, job stress and burn out

'Erm... she said it is very, very stressful. The bleep goes on and on every five minutes... And after a couple of months, she left, for what reasons I don't know but she left'

(Anaesthetist 1)

'Sensing chaos' could be intensely personal and generate defensive actions when professionals experienced differences of opinion, often mentioned as a function of not working as a team. .

Bohmer (2009) believes that such issues exist because nurses and doctors are not trained in team working (Bohmer, 2009). One participant provided an insight into this referring to how colleagues with certain skills had to spread themselves thin, and not ever being part of one cohesive team. With reference to Paediatricians and Obstetricians, one participant observed,

'It's extremely demanding because they're here (medical staff), there and everywhere and their expertise ...then they feel very unhappy at times having to cover the kids wards or paediatrics and vice versa.'

(Senior Midwife 1)

In a busy unit, although professionals would like to limit the time spent on each task, they would be unable to do so consistently because of conflicting needs. The participant quoted above recalled the chaotic situation that ensued in an isolated part of the hospital making difficult to cope with the situation alone because

'the patient was disorientated by the effects of alcohol'

(Senior Radiographer)

As there was no help at hand, this professional had to carry out both his/her own profession's tasks and what the professional considered nursing duties.

'Sensing chaos' is an important phenomenon in the 'hospital at night' and an important element of 'Being scared in the dark'. Professionals improvise, cut down steps and work with limited information when they sense chaos. These actions are enough to ensure patient safety. At times, these strategies contribute to chaos and contribute to job stress and burn out.

The study did not find open hostility leading to or resulting from sensing chaos between professions. However, professionals in the 'Hospital at Night' found it easier to perform tasks within their own discipline rather than do work that they considered outside their prescribed role, for example providing emotional support to patients and carers. Trying to attend to these competing needs led to participants sensing chaos in their work. The study found that minor incidents occurring in succession contributed to 'sensing chaos' as some professionals did not seem to find common ground for collaboration (Barkow, Cosmides and Tooby, 1992). Sensing chaos potentially gives rise to human resource costs in the 'Hospital at Night', namely job stress and burn out (Carayon, 2007).

From adaptive psychology, the 'Hospital at Night' is a dynamic system that is dependant on whether or not professionals choose to work in a cooperative manner or not (Barkow, Cosmides & Tooby, 1992). From the Industrial psychology perspective, however, the narrative of chaos is also a narrative of

motivational difficulties rather than complexity of the work situation. According to Bandura (1986), self-efficacy is 'the belief in one's capacity to perform a certain task or reach a specific goal' (Landy & Conte, 2007:355). Medical writers posit that it is not self-efficacy at issue; rather it is the explosion of healthcare knowledge, which leaves professionals wondering what to do as they become more and more aware of the alternatives to what they know and do (Lee & Thomas, 2009). This effortful engagement with complexity can leave professionals feeling unrewarded by the organisation for their efforts.

4.4 Feeling unrewarded

The subcategory 'Feeling unrewarded' focuses on the reward and payment systems in the 'Hospital at Night', particularly on the consequences of 'Agenda for Change'. Agenda for Change was implemented in 2006 by the Department of Health (DoH, 2004; 2006). Discussions about reward arose spontaneously during the interviews in that working in the Hospital at Night was felt by some participants to be unrewarding, and even threatening to financial security and job satisfaction.

'Agenda for Change' purported to create fairness in pay structure by developing a job appraisal scheme capable of evaluating all jobs in the NHS. This structure would then bring all professionals in the NHS under one pay structure. As a nation wide initiative, 'Agenda for Change' re-graded professionals according to a certain point system or pay spines (DOH, 2004:7). One identified weakness in Agenda for change was that it left the interpretation of value of each professional's role to the local manager. This

may have entrenched a 'turf mentality', whereby the local manager decided on what was good work and what was not worth rewarding. Feeling unrewarded emerged from data that suggested that participants in the hospital at night felt they were not recognised or rewarded for their efforts under this new scheme. During the interviews, most professionals felt that the 'banding system' introduced during 'Agenda for Change' had affected their income.

Participants felt that some professionals received less pay for the work they were doing while the intensity of work had increased. One interviewee reported that:

' So although it's meant less hours, and you've effectively got the day off before and the day off after which I think is a benefit ...we have erm lost a bit in the actual money that you're paid'.

(Senior Radiographer)

Agenda for change states that individuals:

'...will receive unsocial hours payment in accordance with the relevant Whitley provisions for occupational group, or if there are none on the basis of rules applicable to nurses and midwives' (DoH, 2004:12)'.

Some participants felt that 'Agenda for Change' had not rewarded professionals proportionately. The following participant pointed out that some people had benefited a great deal from the changes

'Due to the fact that what they get money-wise to what they deserve'
(Anaesthetist 2)

However, a number of participants pointed to a perceived lack of systematic approach in implementation of Agenda for Change. One participant pointed out that

'And thinking before we have a system, what sort of benefit we will get, what sort of job satisfaction this person will get'.

(Obstetrician 1)

Two participants both pointed out that a system of performance management did exist in the hospital but the system did not seem to have

'rewarded professionals appropriately'.

(Senior Radiographer & Anaesthetist 2)

It seems that that interviewed professionals that the mechanism of banding within the organisation may not have been locally negotiated with frontline professionals. One study suggests that in some organisations the use of the job evaluation handbook used to make banding decisions is somewhat arbitrary (Boudreau & Ramadan (2007). Another study has shown the banding framework increases the probability that those in managerial positions will be rewarded at the expense of non-managerial professionals (Becker, Huselid & Beatty, 2009).

One participant illuminated on this area and showed how the mechanism of 'Agenda for Change' worked in practice for this participant.

'I mean, out hours work... that we used to have ...simply went because they came out with a numbers game whereby if you didn't do... a year, you weren't doing enough to maintain your skills even though our staff actually came pretty much top most of the time in all their assessments'.

(Senior Laboratory Scientist)

The data suggested the participants felt that the payment system of Agenda for Change had winners and losers. For the losers, the outstanding

consequence was frustration and reluctance to take up responsibility. Some professionals were reluctant to take on more responsibility because they felt under recognised by the system.

'So I'd already made that decision (turning down responsibility) in that I didn't want to carry on in the role that I was doing and then it was just a matter of discussing with them which way I would go after that'.

(Senior Midwife 3)

It seems that the banding process has resulted in some professionals feeling unrewarded for the skills they have and are therefore reluctant to take on more skills for no further reward.

'Why should I? Why would I want to do that? I already am not recognised for the knowledge and skill that I have and now you ask me to take on more'.

(Anaesthetist 2)

Some professionals felt quite unhappy with their work. One was considering using the annual appraisal to redress the situation.

'It is...now it's coming to a stage that I feel it is very.....and I'm not really enjoying the job... and this there's an opportunity for me coming up in a couple of days a couple of months time where there's a job plan a new job plan will be discussed... and I think the majority of our people are planning to ask for something different'.

(Anaesthetist 1)

According to Davenport et al (2010: 56), 'it is important that there is a link between what professionals do and organisational objectives'. The 'Agenda for change' initiative had suggested a job plan for all staff (DoH, 2004).

However, it is suggested that the job plan suggested in 'Agenda for Change' may be too generic for a complex system such as the 'Hospital at Night' (Becker, Huselid & Beatty, 2009) and certainly in this study participants felt that working at night was not providing them with any reward.

In summary, Agenda for Change was perceived by the participants in this study as creating tension in the work system. It appears those who felt that they deserved a reward did not feel rewarded. Underlying that may have been the tacit way of evaluating each professional's contribution. Feeling unrewarded identified a potentially more a general feeling among NHS staff that they had not been banded on Agenda for Change as they thought they should, and were anxious that their income and career development were at risk. Thus adding to 'being scared in the dark'.

In the next section, the sub-category of 'seeing bogeymen. Refers to how the staff of the Hospital at Night construed 'other' professionals, those not from their own discipline as threatening and easy to be fearful of and to blame for things not unfolding as they should.

4.5 Seeing Bogeymen

In this section, the 'Hospital at Night' is seen through the lenses of the notion that 'some one makes things not work' here (Lupton, 1999: 45). Seeing Bogeymen describes how the unintended actions of some of their colleagues prove to be obstacles to teams achieving their goals. Professionals have collectively developed ways of identifying or 'seeing' colleagues whose actions are counter to the collective efforts of professionals. Such actions

cause fear and alarm or bogey the hospital@night. Seeing bogeymen is about becoming aware that within the community of practice, things are never straightforward and each perspective has counter perspectives arising within or without the team, which make negotiating shared purpose extremely tricky.

This subcategory developed out of explanations participants gave for process improvement failure. The literature reveals at least two approaches to the problem of finding who is responsible; malevolence on the part of others and the unpredictability of relationships. According to John Dewey, there was a time 'when desirable and obnoxious physical phenomena were attributed to benevolent or malevolent ruling power' (Dewey, 1938). In this view, research approaches would identify those professionals who are completely opposed to change of any kind. On the other hand, dynamical systems theory would suggest that the 'bogeyman' lay in the nature of bidirectional interactions between key people in the organisation (Kenrick, Li & Butner,2003).

According to Becker, Huselid and Beatty, to see and overcome such obstacles

'An effective workforce philosophy has several dimensions that explain the roles and responsibilities and employees. It describes the nature of the work relationship between employees and the firm in clear behavioural terms' (Becker, Huselid, Beatty, 2009:114)

Professionals were more aware of 'Seeing bogeymen' among colleagues who did not belong to their discipline. The findings suggest that participants regard professionals from the other disciplines as 'not necessarily belonging' to the team. According to two participants, the tendency was for the resident team to,

'regard us as outsiders'

(Anaesthetist 1)

Participants seemed to feel that there was no consistent method of learning from practice with resistance to colleagues perceived as outsiders (the bogeyman) offering guidance or development opportunities. One participant described how advising other departments, was a delicate matter and

'you have to be careful not to walk on people's toes'

(Anaesthetist 2)

This statement may indicate that the participants felt that some professionals could be very sensitive to what they perceive as criticism or a source of fear and alarm rather than construing such interventions as learning. It has been noted that high achievers tend to be sensitive to criticism. Sometimes people who have done something well for years will prefer to continue doing that even if its not achieving the outcomes they desire for fear of appearing incompetent when they start practising a new behaviour.

However, there are examples in the literature of active learning in practice across professions and teams. At Intermountain hospitals in the US, healthcare teams have formed an elaborate system of capturing knowledge from clinical practice. They have created 'clinical developmental teams' (Bohmer, 2009:165-8). In this way, Intermountain has infused clinical practice with performance culture that drives learning. Learning from experience is essential in any organisation (Schon, 1987; Senge, 1990). This, however,

seems not been the experience of one participant. This participant described the difficulties of trying to help colleagues

'Mm. People don't like it. People do not like, you know, your department is your department. Your area is your area. Your speciality is your speciality. If anybody, an intruder, comes into your little remit, people don't like it.'

(Anaesthetist 2)

Similar to the subcategory of 'feeling unrewarded', Obstetrician 1 felt that this led to under use of skills and that (s)he was undervalued. The participant providing the quote above seemed to feel excluded, and it could be suggested from these data that participants considered that teams and departments preferred to keep their inner-workings hidden from others. According to Dresner, transparency is crucial to high performance (Dresner, 2010). Companies that are innovative apply specific practices related to culture which transcend functional areas (Frangos, 2011). It seems that the 'Hospital at Night's culture of *'this is my territory'* maintains its boundaries.

One participant, Obstetrician 2 pointed out that even analysis of critical incidents were *'blocked from proceeding'*. According to some influential organisational theorists, the organisation must address the learning and development aspect of organisational strategy if it has any chance of realizing its objectives (Kaplan & Norton, 2006).

It seems that there is indeed a 'Bogeyman' embedded within the culture and structure of the 'Hospital at Night'. Both Inter-professional learning and working depend on professionals being open about and reflectively sharing

experiences. The data of this study suggested that opportunities for learning could be lost by the perception of outsiders as 'bogeymen' and their accessing the team and seeing its operations, promoted 'being scared in the night'. In the next section the study uncovered how professionals assess or 'sense risk' in the 'Hospital at Night'.

4.6 Sensing risk

Risk management has become a by word for improving the quality of care while reducing the cost of healthcare in Neonatology and Paediatrics (Hermansen, 2005; Matlow & Laxer, 2006; Feld & Jain, 2009; Spitzer & Ellsbury, 2010). However, it is worth remembering that risk exists only before destruction (Beck, 1999) and as such, much of risk is negotiated within a community of practice.

Since risk is socially constructed within a socio-technical system (Strydom, 2002), Kaplan recently identified risk categories, which work system designers ought to consider when developing a risk management platform that supports organisational strategy as operational, strategic and global risks (Kaplan & Mikes, 2011). This sub-category focuses on how professionals would sense risk 'hot spots' in the hospital at night and what they think ought to be done about these risks.

'Sensing risk' emerged out of data that suggested that professionals felt that they had a purpose. Their purpose was ensuring safe outcomes for mothers and their babies - while in utero, at birth and after birth. 'Sensing risk' stands

for those processes professionals recognised as helping them deal with uncertainties associated with managing ill mothers/ infants. Professionals felt that to protect mothers and their babies, a framework incorporating setting priorities for the Hospital at Night', planning strategy for the hospital at night and standardising care.

'Sensing risk' also identified risk areas where professionals felt that the work system could fail. The risk areas identified were human resource strategy, the work system itself, use of technology and understanding the work system of Obstetric-Paediatric interface.

The participants felt that while the 'Hospital at Night' Obstetric-Paediatric interface relied on Midwives to do the job, at the same time there was little Human Resource acknowledgement that

'Midwives did most of the job',

Senior Midwife 1

This aspect links with the subcategory of 'Feeling unrewarded'. It has been posited that aligning a risk management system to a reward system may be a useful way of achieving organisational objectives (Kaplan, 2009). One reason identified for failure to acknowledge Midwives was that their extended role with the work system was unclear. One participant observed that young doctors had

'difficulty respecting sister's opinion'.

(Senior Nurse)

This seemed to indicate that junior doctors were reluctant to accept practical advice, giving rise to questions about the leadership structure in the 'Hospital@Night' work system. Salas et al (2007) pose the question of apart from disagreeing with senior nurses, do junior doctors know how to support nurses or get feedback from them? Another participant was of the opinion that for the work system to change, clinicians ought to be involved in management.

According to Kaplan (2009), on this issue, 'the hospital at night' work system has exposed itself to strategy risk. Strategy risk arises 'when companies select strategies that they hope will create and sustain competitive advantage'. In keeping with NHS strategy, the hospital has chosen to use non-medical staff in extended roles but perhaps has not built a structure around this choice. One participant confirmed the tension as follows,

The system relies on , obviously, the midwifery team to...so it's.....although it is not like teamwork as such, by word, so it's not like an integrated team but it is integrated...'

(Obstetrician 2)

Using non-medical staff poses a strategic risk and the hospital has to 'confront the strategy risks associated' (Kaplan, 2009:3).

If skills of midwives are tacitly accepted, medical staff will know that they are now practising in a different set up where people are encouraged to develop horizontal interconnections. However, not being explicit about changing skill levels has consequences. Some professionals felt that their teams were disintegrating. There was a constant loss of experienced personnel from the

service. According to them, some posts remained unfilled. According to one participant, professionals may experience anxiety because of uncertainty of 'who will go next' when their team loses membership in the reorganisation.

'That's right, that's right. But you can induce a certain, you know, erm a certain erm anxiety... when you try to change systems in a way that doesn't help them feel like a group.'

(Senior Laboratory Scientist)

Theoretical sampling led to how professionals maintain group membership and exposed operational risk 'hot spots'. Some professionals would do anything to avoid being ostracised from the group. For example, one participant reported actively avoiding

'offending others'.

(Anaesthetist 2)

If this is anything to go by, it seems that the work system has some unwritten operational rules. Such taken for granted rules influences how people respond to each other at a subconscious level.

According to a recent book on coaching, for organisations to improve performance and transform themselves, such imposed rules have to be surfaced through empathic questioning (Brockbank & McGill, 2013). A recent report into services at Mid Staffordshire Hospital, now known as the Francis Report, showed that at the heart of the Mid Staffordshire work system was a culture that did not tolerate dissent and inquiry. Those who dared challenge

the taken for granted order of things ran the risk of retribution from a management system that was hypersensitive to criticism (Frances, 2013).

Apart from system wide under performance, the fear that goes with the risk of losing group membership or 'family' connections might be a factor in the genesis of personal stress. Individuals may go through 'phases of alarm reaction, resistance and exhaustion' (Arnold et al 2010: 435) as they finally succumb to the pressure exerted on personal life by the work system. Indeed one professional became unwell because she had lost friends and family.

'Erm.....I had a period of sickness for about three months and it came down to the fact that basically I wasn't coping very well with work and erm my home life situation was very difficult'.

(Senior Midwife 4)

To study the team ethos at night, the study next turned to what professionals did if they felt that things were not working well. One participant, Anaesthetist 2 felt that some '*professionals were not using equipment properly*' but was unable to influence colleagues in a certain department. The participant could not take concerns elsewhere because no other feedback system existed apart from one that entailed talking to the people who were not listening to his concerns.

This may indicate that on use of technology, from one perspective, difficult issues are abandoned and professionals may feel attacked by colleagues from other disciplines who may express concerns. According to another participant however, managers definitely do listen to concerns about service

quality. This may indicate that a culture of giving information to others and seeking information from others is not strong. However, one participant, Senior Midwife 5 stated that Trust policy was that *'everyone would be listened to'*. This difference in perception may suggest the Trust has a theory in action (how things actually are) and an espoused view (what the aspiration of the Trust is) (Schon, 1983, 1987). This may indicate that there might be work to do in reconciling the two perspectives within the work system such as the appropriate use of critical incidents about technology to monitor and improve patient safety and interaction within the work system.

This approach of using technology for improving not only patient care but also how professionals interact, is called organisation-technology interaction (Karsh & Holden, 2007). According to them end user participation through out the implementation and operationising of technology must be supported by appropriately designed learning opportunities. Wenger has called for communities to be aware of their position in the interaction between participation and reifications such as technology (Wenger, 2009).

Interestingly, one participant, Obstetrician 2 reported that new guidelines concerning reducing risks to patient safety may be introduced *'without much discussion'*. However, although there may have been feeling among some that they felt ill-informed by the organisation, others suggested that some initiatives needed to be implemented rapidly. The need to pass the 'CNST, Clinical Negligence Scheme Trust was reason why certain guidelines may have been rushed through.

'ell, yeah, that is true. Erm.....again, the guidelines we have are pushed through for a purpose and that is to tick the boxes. We have to have guidelines. What we don't do it to adapt these to our own needs, for our own population. Adapted to accommodate the smallness of the unit, erm..... and use it to improve our care, our presence or even to use it as a way to say to the managers, look, that this is what we want. To be able to apply these guidelines, we don't use it like this. It just passes through as a tick-box and is all filed. It is all kept very nice and neat on the labour ward folders. Say CNST and this sort of thing'.

Obstetrician 1

CNST, Clinical Negligence Scheme Trust is an agency of the NHS. Its job is to ensure NHS organisations remain insurable. The risk assessment carried out by CNST follows the Baldrige model consisting of internal and external assessment (Hutton, 2000). The pressure of insurability might influence the quality of discussion prior to signing off the guideline into policy. In this case, the external environment seems to influence internal decisions (Mythen 2004) and (Lupton, 1998; Beck, 1999).

Kaplan suggests that management of operational risk requires 100% compliance. There is a possibility that adherence to a guideline that is not discussed and remains unmodified to reflect local circumstances may be a problem. It could be suggested that in some areas of the 'hospital@night' have become isolated small kingdoms that resist change (Ramaswamy & Gouillart, 2010) perhaps because no one interferes in the work of 'others'. In such a situation, 'professionals may choose to bend rules' (Bazerman & Tenbrunsel, 2011:59).

The literature seems to suggest that poor communication skills lead to litigation (Fox et al, 2005). One hospital has reported how after serious litigation episodes related to communication failure within their work system, they instituted Rapid Process Improvement Workshops (Hagan, 2011) to improve professional performance on metrics related to communication. One participant, Senior Midwife 5 spoke of how those with difficulties with communication are *'asked to go on a communications'* course. However, there was a contrary view, which was that instead of sending clinicians on a communications course, any identified skills gap should be part of ongoing learning within the team. According to this view, team coaching means:

'Enabling a team to function at more than the sum of its parts, by clarifying its mission and improving its external and internal relationships' (Hawkins & Smith, 2013:62)

According to one participant, there is a role for doctors to learn on the job within the team.

'So I mean they're going to learn one-to-one. So I mean the registrar would see to them... So they learn as they are exposed to the cases'.

(Obstetrician, 2)

While teaching in apprenticeship model is laudable and age old, Baker et al (2007) suggest that team learning ought to be better organised. This may involve a systematic way of contracting the team, inquiry, and action (Hawkins & Smith, 2013). Moreover, organised learning could be resisted if it was seen as punitive; there was an example of a professional who turned down a suggested re-training programme.

'.... and when my shortcomings for that particular span of time had been pointed out to me, it hurt very much to hear that erm My options

as they were pointed out to me were to go up to ...for re-training which I really didn't fancy at all...

(Senior Midwife 3)

Brockbank & McGill (2013) has suggested a framework for bringing empathy into coaching teams. According to these authors, in coaching empathy is used to do the following

- **'to support the all important relationship between coach and client**
- **to acknowledge the reasons behind a client's situation and**
- **to calm the client's instinctive reactions to threatening change'**

(Brockbank & McGill (2013): 3)

4.7 Conclusion

'Being scared in the night' describes a work situation that seems full of risk.

Being alone has aspects of actually practising in isolation increasing *personal insecurity* and also feeling alone in that other expertise is not available for support. *Being alone* also suggests that there are low staffing levels, adding to a *sense of chaos* as people try to cope with demanding workloads.

Participants feel their personal security is at risk due to being alone and being subject to violence. Feeling unrewarded adds to personal insecurity as participants perceive their financial and career prospects are affected and that their expertise is unrecognised. Sensing chaos is where people are too busy (due to being alone in low staffing levels) and aren't able to complete tasks properly – leading to extra work and more chaos in other departments. A sense of chaos increasing 'being scared in the night' where people doubt each others' expertise. This doubting in turn gives rise to feeling of being unrewarded.

Sensing risk also involves managing actual learning needs and finding ways for remediation, an element of this risk is that it is resisted. Sensing risk identified how the participants alluded to factors that made them sense risk. These included lack of understanding about the roles of others leading to perceptions of lack of expertise in 'others'. Additional risks could be identified where learning needs were identified but strategies to remediate the situation were not felt to be acceptable and therefore not taken up.

Seeing bogeymen relates to perceptions of 'outsiders' not being acceptable as providing learning opportunities and this suspicion, if your expertise in developing others adds to being alone.

Chapter Five

Acquiring Night Vision

5 Introduction

The major category 'acquiring night vision' centres on midwifery participants' practice. It shows the readiness of midwives to manage strategic risks associated with European Work Time Directive (EWTD). Acquiring night vision shows how the midwife participants in this study envision their practice in the changing context brought by the EWTD.

Acquiring night vision is about how midwives act to fulfil the tenets of professionalism in terms of professional excellence, clinical humanism, in the education of others and accountability for delivering complex healthcare (Stern, 2006). Through interactions of midwives with patients, colleagues and their learning, it is possible to see through the hospital at night and begin to piece together the possible role of inter-professional learning.

Acquiring night vision considers the strategies midwives describe as they adapt to the changing circumstances resulting from the introduction of EWTD. The findings identified that the midwife participants' values of aiming for excellence in care informed a commitment to modify practice to address emergent service need. Acquiring night vision describes how the midwife participants' perceptions of patient needs, education of others and collaborative working provided clarity in the Hospital@Night. Acquiring night

vision has three subcategories: 'being with mothers'; 'shedding a light' and 'working with others'.

Table 3: Acquiring night vision

Category	Sub-category
Acquiring night vision	<ul style="list-style-type: none"> • Being with mothers
	<ul style="list-style-type: none"> • Shedding a light
	<ul style="list-style-type: none"> • Working with others

5.1 Being with mothers

'Being with mothers' describes a humanistic aspect of work in the Obstetric-Paediatric interface. In the context of the Hospital@Night imperative to accommodate a reduction in junior doctors' working hours, it could be suggested that the midwives engage their midwifery skills of 'being with mothers' with an aim to replace medical interventions with midwifery expertise rather than merely taking on the medical tasks of junior doctors .

'Being with mothers' explores how midwives forge a psychological connection with mothers in labour with the aim of avoiding unnecessary medical intervention. Activities that centred on the concept of keeping labour as near to 'normal' as possible defined 'being with mothers'.

Recent studies indicate that mothers are less likely to have caesarean delivery if they are cared for on midwifery led units (Hundley et al, 1995; King et al, 2012). Another study showed that mothers felt more in control (Walker,

Hall & Thomas, 1995). However, although the rate of complications to the baby may be similar, vaginal deliveries carry risks for the mother (Wohlrab & Radin, 2008). For example, one study found a high rate of stress incontinence among mothers giving birth vaginally compared to those undergoing caesarean deliver in Netherlands (Van Brummen et al 2007), however, another study found stress incontinence was equally common in vagina and caesarean birth (Borello-France, Burgio, Richter (2006) .

'Being with mothers' shows how midwives walk the tight rope of accountability to practise patient centred care. Interviewed midwives discussed patient outcomes and felt that they were succeeding in their duty of reducing the rate of caesarean section delivery while ensuring good outcomes through their presence and availability to mothers. They achieved this through 'being with mothers' and this meant doing more than one task at a time on behalf of mothers and by helping mothers learn.

'Being with mothers' refers to a bundle of activities undertaken by midwives to ensure a normal delivery. Midwives create an environment that supports 'normality' in labour. According to one Obstetrician, instrumental delivery was a more likely outcome after inducing labour.

'The failure rate of augmentation is higher so the instrumental delivery rate is higher, our intervention rate is higher'.

(Obstetrician 1)

Normality in labour means encouraging the physiological process of labour to proceed, at a rate that is internally regulated by the mother. This means being in mindful closeness to mothers and understanding to each mother's unique case. Benner has suggested the term 'presencing' or that 'the expert nurses had the self-esteem and self-confidence to see the value of their presence for patients...' (Benner, 1984: 57). The notion of presence or being there for another person has become an important concept in organisational change (Cheung-Judge & Holbeche, 2011) and coaching (Alexander & Renshaw, 2005). Although this is reference to nursing practice, this concept has resonance for midwives. Recently one hospital has incorporated 'presence' in the professional practice model (Erickson & Ditomassi, 2011). Through their nearness, one Midwife observed that they have reduced instrument-assisted delivery at night.

'Yeah, I mean I think in terms from a midwife perspective....in terms of promoting normality, I would say there's less interference at night...'
(Midwife 1)

Another midwife added

'We should be leaving women to it, if there are no other risk factors, not if it's just because they're post-mature.'
(Midwife 2)

The midwives seem to engage in an active process of monitoring and acting on emergent of complications and seem to be the axis around which the service delivery in the Obstetric-Paediatric interface revolves. Midwives were

aware of the extended coordinating roles within the shift during which they perform multiple tasks.

'I actually, coordinate the shift'.

(Midwife 1)

Although midwives are aware that pain control using non-invasive, complementary and alternative methods may actually increase maternal need for midwifery time, they see this time as well spent. Midwives use specific skills to help mothers manage pain such as incorporating midwifery emotional nearness into pain management protocols (RCM, 2012). They also know when to ask for help on behalf of mothers, for example requesting epidural-based pain control.

'Well (its about) a woman needing pain relief in labour. Well, we have got criteria now that if all other methods of pain control have failed....then, you know, it's in the criteria that we can ring the anaesthetist'.

(Midwife 2)

Midwives defined themselves as mentors to mothers and described themselves as helping mothers to plan and learn. Midwives are a resource of informed choice in the Obstetric-Paediatric interface. Helping mothers plan is an important part of care, which requires the midwife to act as educator to the patient. Recalling a time when a caesarean delivery became a strong option, one midwife pointed out how 'helping a mother learn and plan' influenced management

'... but at that time, we didn't have a justified reason (to intervene with caesarean section), she certainly hadn't been given an informed choice, and it's my job to do that'.

(Midwife 1)

In helping mothers plan, the midwives seemed more likely to take a broader view of the circumstances of the mother over and above high science. High science relies on instrumental rationality or goal oriented thinking while midwifery practice embraces a wider rationality because, their practice takes socially constructed patient values seriously (Hunick et al, 2012; Stanovitch, 2009). In other words, their care is based on patients' values and at times midwives may put aside instrumental rationality in favour of maternal physiology and midwife intuitions.

A midwife pointed out the change in patient outcomes when professionals rely on instrumental approaches, particularly less experienced medical staff who do not have the confidence to 'wait and see' (Hunick et al, 2012: 9).

She is more likely to have to have intervention and ultimately, more likely to end up with a caesarean section which will affect her mobility'.

(Midwife 1)

Midwives feel that it is within their professional practice to encourage normalisation of labour. To do this midwives construct mindful and empathetic relationships with mothers by being with mothers throughout their labour.

Their professional preparation enables them to take accountability for outcomes and consider the social circumstances of the mother. With

midwives being accountable for more and more normal care without direct medical supervision, they have shown that they have competences to meet the requirements of EWTD. It seems that apart from being with mothers, midwives use their specialist knowledge of supporting normality in labour and monitoring for emergence of abnormality, and seem to succeed in reducing the need for instrumental medical function rather taking it over. Midwives shed light on clinical problems for colleagues especially the less experienced.

5.2 Shedding a light

'Shedding a light' is about helping others 'see in the dark' and midwives illuminating how their own practice can contribute to the Hospital@night. 'Shedding a light' traces how senior midwives are shaping the profession and preparing themselves and others for complex interrelated roles. Beyond the care of patients, 'shedding a light' shows how midwives have seen and responded positively to opportunities for professional development.

There are three important elements of 'shedding a light': midwifery leadership to ensure educational advancement for midwives; the positive outcomes of acquiring new professional competences and the confidence to define new midwifery professional boundaries.

Midwife 5 below describes how those in leadership roles, are adapting to the changing environment, by encouraging participation in higher education to advance roles and are working to break down professional barriers.

'There was quite a lot of the rule-governed behaviour. I was thinking of earlier. I think there were some quite prescriptive clinical guidelines.

(Midwife 5)

A criticism of the relationship that has existed between midwifery, obstetrics and anaesthetics is that midwives have traditionally been expected to be subservient to medical professionals (Mander & Murphy-Lawless, 2012). With changes in the NHS, midwifery leadership had a vision of possibilities for career advancement

'There was, perhaps, a lot of scope to develop the midwife's role that hadn't been developed'.

(Midwife 5)

To ensure that midwives are prepared with the right competences, midwifery leaders have developed partnerships with local institutions of higher education and support colleagues to take these educational opportunities. The educational programmes span a spectrum that covers degree, through masters to doctorate levels.

'Then they are seconded to a programme. So they do academic preparation at one of the universities....We've used different ones (universities')... programmes. The first midwife to do it was about ten years ago'.

(Midwife 5)

Another dimension of 'shedding a light' was 'acquiring competences'. Acquiring new competence outcomes gives midwives a span of responsibility that they can undertake that contributes to addressing the EWTD challenge. With reference to independent practice such as seeing patients and prescribing medication without obstetrician supervision, the outcomes of

acquiring competences have been personally satisfying. The confidence of the adult learner midwife is an important driver of 'shedding light'.

'Well I've got a first degree...and (another midwife)... has a doctorate who focuses on normality (Midwife 2)

'And midwives have been up skilled in various areas....whereby the midwife might see the woman or might attend to the baby without reference to medical input'. (Midwife 5)

A final aspect of 'shedding light' ' was defining new boundaries - shedding light on new opportunities. Apart from providing care, defining new boundaries involves taking leadership roles in care, education and service improvement.

While midwives, like other professionals, work within guidelines for patient safety, defining new boundaries shows that midwives themselves are shaping parameters of practice.

'I am normality focused...and my aim is not to become a junior obstetrician...'

(Midwife 2)

Midwives have increasingly acquired competences, which have confirmed them as a discipline of practitioners who can work independently. They understand their scope of practice.

'Women with complex medical conditions and all sorts of things get pregnant and then I'm not the main carer in that situation'.

(Midwife 1)

The leadership role has evolved and the findings suggest that rather than, for example, regarding doctors as superiors, midwives have respect for the expertise of Obstetricians, but claim normality in childbirth as their preserve.

Apart from midwives' commitment to shedding a light with respect to patient education, they are involved in the education of junior medical and midwifery professionals. Midwives frequently make judgements about what is normal and what is abnormal and use their experience of having been with mothers over a number of years. They are able to recognise changes in the maternal condition. The experience they have of being with mothers is used to help more junior professionals perform tasks better.

'Shedding a light' presents midwives as opportunistic teachers casting a new light on problems. Midwives act as guides to less experienced professionals.

'I'm often there to provide advice and support to junior colleagues on what the correct procedure, protocol, policies would be to go about managing a woman in labour'.

(Midwife 2)

'I have to try and make myself as available as possible. So I'm there to support the midwives'.

(Midwife 1)

For most of the midwife participants, midwifery is a life long vocation, which starts in early adult life and colleagues that are more experienced help shape their development. In turn, midwives seem to have a way of using their knowledge to support others through practice.

'In theoretical terms, yes and certainly the midwife who has done the programme would be using knowledge for teaching, knowledge to assess and support new recruits to that process and she may still be able to see a small number of babies'.

(Midwife 5)

Midwives use their experience to shed light on different aspects of care for the benefit of patients and more junior colleagues. This fits with the professional practice model described by Murphy et al (2011) which values relationships, offers leadership through critical thinking, evidence based practice and technical experience. In spite of this, there were some difficulties with formalising training at night.

According to one source, the problem may have had to do with time and opportunity professionals have of working together. Another problem is that senior midwives realize that they cannot delegate their work to others for them to carry out structured activities related on facilitating the education of others.

'I cannot delegate anybody to deliver a baby other than a registered midwife or registered medical practitioner, you know, if there's too many women there, requiring that level of care.'

(Midwife 2)

In essence shedding light depends on the availability of the professional time to care, educate and learn. Midwives' involvement in medical education is not a new thing and goes back as far back as 1980's when teaching hospital midwives started actively 'shedding light' on clinical practice to medical

students (Platt, Angeline & Paul et al, 1985). It has been observed that by 1998, more than half of the teaching hospitals were using midwives as teacher and by 2007 the number had tripled (Angeline, Obrien, Singer and Coustan, 2012).

The midwives in this study saw this as an important contribution they could make to the Hospital @Night. Apart from shedding light, during which midwives extend their own and others' learning to enable competent functioning in the context of the hospital@night, midwives collaborate with other professionals to deliver complex care. Working with others shows the extent of professional co-dependency.

5.3 Working with others

Whilst the sub-category 'shedding a light' considers the illuminating influence of education to 'enlighten' others to how midwifery practice can avoid unnecessary medical intervention, to advance practice and teach others, the sub-category 'working with others' describes aspects of professional accountability in delivering complex healthcare. Working with others describes the process of maintaining working relationships with other professionals. They maintain fluid relationships for the sake of their patients. They collaborate.

Collaboration has been described as dynamic, flexible , non-hierarchical process involving the efforts of more than person to accomplish a mutually determined goal (Downes, Finlayson & Fleming, 2012). Ibarra & Hansen

(2011) suggest a broader definition of collaboration, which includes making connections within and out of the organisation and engaging diverse talent within the organisation. According to them, this works well particularly, when innovation and creation are critical.

At the Obstetric-Paediatric interface, midwives collaborate with their colleagues and patients in decision making using experience and technology.

At the Obstetric-Paediatric interface, midwives encourage collaborative working by humanising technology. Technology is humanised because instead of relying solely on technology for decision making, midwives use maternal responses such as pain, fever, thirst, breathlessness to decide when to intervene with technology.

In other words, midwives wait and see, believing in normality of the birthing and with their patients decide when to intervene using technological assistance. When they need more information, midwives work collaboratively with technology in two ways, 'Creating harmony' between professionals and technology and carrying out preventive work especially 'Safeguarding function' of the unborn and newly born baby.

With the capability to wait and see or intervene by introducing technology, midwives are capable of using technology to enhance their care based on openness to co-creating care with mothers. Interviewed midwives seemed to have a deep understanding of how to harmonise the role of technology thereby ensuring its position in pregnancy, labour and post delivery process.

Professionals discuss with mothers and decide when the time is right to incorporate technology in the decision-making complex. Midwives seem to have created a functioning 'harmony between naturalistic care and technology-led care. The harmonious practice tools are the knowledges (held in the heads of mothers, other professionals and midwives) and technologically elaborated clinical evidence. For example, the main method of both outpatient and in labour monitoring was maternal self and baby monitoring.

The mother will share the information with the 'normality focused' midwife who will decide whether to incorporate technology in gathering information for decision-making. When asked about what monitoring meant, one professional elaborated

'it's just through discussion. One of the checks is are you feeling baby moving'? Are you feeling at least ten a day? 'So I think that's the main monitor is the baby's mother. For selected patients... cardiograph, a CTG, to monitor the baby's heart rate. If there are any other concerns then the baby'll be, we'll do a Doppler or ultrasound scan erm and make sure that the baby's got enough amniotic fluid, that there's enough oxygen and the cord, the blood-flow to the baby and everything adequate. Growth's adequate. So that's what we do
(Midwife 1)

Indeed, (Jain & Wapner, 2008) indicate that only when pregnancies went past 42 weeks were abnormalities in non-stress tests and amniotic fluid detectable. The midwife participants discussed how they make choices about the extent to which the use of technology is minimised. For example, current practice at

the site of this research does not endorse home use of foetal viability monitors, although their use has increased in other centres.

To enhance collaborative care with mothers, the physical environment of the labour ward has been modernised to reflect the needs of users

'We've a better working environment for the woman to enter for her birth, more privacy, more dignity, en-suite bathrooms and those little things can make a huge difference as well as a better working environment for the staff.'

(Midwife 3)

Furthermore, while referral of mothers to be by GPs and community midwives into the hospital is the norm, mothers also have open access to maternity services. Although the maternity services were open to mothers, care is still regulated within professional guidelines.

Midwives rely on guidelines to support mothers in pregnancy and labour.

During interviews, it emerged that although the initial impression appeared to be that of professionals who make decisions for the unique and particular case using intuitions and reflective practice, midwives also rely on evidence-based algorithms and were less likely to depart from operational guidelines wilfully.

Midwives had a strong sense of safety through actively mitigating operational risks associated with care

'as a senior midwife, I certainly wouldn't be putting anybody at risk. If I knew that lady needed antibiotics and that the registrar was busy...

*There is a little bit we can write why we've given that prescription and I would write that and then get the signature when it was safe to do so'.
(Midwife 1)*

To elaborate why mitigating risks during the care process matters, midwives indicated that ultimately the outcome, which is the birth of healthy child to healthy mother, was their target. According to midwives, theirs was a preventive stewardship or a 'safeguarding function'.

Working with others was further defined by this safeguarding function that indicated the strategies' midwives employ to ensure the safety of the unborn infant and the newborn. Safeguarding function was defined by the collaborative work midwives have to do with other professionals and agencies during a shift to protect the unborn child. Their use of technology in this aspect is limited and relies mostly on the telephone and e-mail, which can take valuable time and it is easy to not act in a situation where they should be acting to protect the child.

According to midwives, 'safeguarding' tests their professional skills and their ability to form trusting relationships. 'Safeguarding activities' include detecting families whose resources are insufficient to cope with the newborn, informing others on the team of their concerns and collaborating with agencies. The findings suggest that experienced midwives have a deep awareness of the social issues that require inter-agency working and are aware of how such concerns can undermine professional authenticity and credibility in the eyes of their patients.

Moreover and notwithstanding, the social importance of this work, it creates unplanned activity for midwives. As a group, midwives do realize that that it takes time to complete the tasks related to safeguarding the unborn and newborn. Midwives see the safeguarding function as an emotive practice area with divergent perspectives. Recently Battilana & Casciaro, (2013) describe how activities such as Safeguarding that violate the natural order of things can put the professional at the epicentre of change.

Safeguarding function means that midwives share clinical decision making with mothers and with other agencies to support their safeguarding function.

'and you know, I suppose it's a frustration that I have that often these situations...the case conference hasn't happened, ...you haven't always got the information you need, and you just have to use your judgment but, ... there's lots of complexities in terms of who can be on the labour unit, who can't be there...'

(Midwife 2)

It seems that the connectivity of midwives within the Obstetric-Paediatric interface places them in a position of being change agents.

Working with others also described how midwives coordinate care with other disciplines within the hospital. This involved how midwives relate to others working in other departments (obstetricians, radiologists, anaesthetists and SBCU). Inter-professional working is a process of acknowledging the importance of other professionals in health care (WHO, 2010). A team that has worked collaboratively for some time pointed out that 'mutual respect results in greater professionalism, trust and collegiality' (Marshall et al 2012:377).

Indeed respecting the critical role of other professionals in care is at the heart of inter-professional education (WHO, 2010). Midwives seem to have overcome the barrier of disciplinary boundaries through setting up collaborative relationships with others even though they did not experience inter-professional learning. The attitude of midwives towards collaborative working indicates that midwives are positioned to lead their teams towards inter-professional learning.

A framework for collaborative learning such as one described by Gordon and Walsh, (2005) has a very good chance of offering good educational outcomes. One senior midwife spoke of the strong bond of co-dependency in achieving the purpose of getting care through team values and attitudes

'Well it's something that we all, that we just can't compromise on. If there's a baby that needs these tests then we have to prioritise and that would be a priority on the ward'.

(Midwife 1)

One Professional spoke about how she relied upon her colleagues in Obstetrics or Radiology.

'...if there's anything to suggest that we're worried about the growth of the baby, we will refer to the obstetricians or for an ultrasound'.

(Midwife 1)

It seems that what midwives may be lacking is the connectivity within the organisation to formalise their preparation as change agents.

'Well I very much like to see midwives develop their knowledge and skills. Erm...I think there is a definite place for us to work towards a graduate profession. It's been said for a while but we're a long way from it and some of that's partly financial because the preparation for midwifery still has a diploma option because then the diploma student

can have a bursary. They're not on the university student's grant. So for the mature applicant, someone who comes in over twenty-one and perhaps has domestic financial responsibilities, that diploma route has been a good way in.

(Midwife 5)

Acquiring night vision is about how working with others includes having to work with technology and other professionals to ensure that 'normality can be supported and abnormality detected and responded to.

Acquiring night vision has a safety function for the newborn/unborn, which relies on working with others but can be challenged by limited technology that disrupts communication with others. 'Safeguarding the future' of the newborn baby can challenge the 'being with mothers' aspect

5.4 Conclusion

Acquiring night vision is about how the midwives have adapted to the hospital at night and enabled themselves and others to 'see' in the dark through being with 'being with mothers', 'shedding a light' and 'working with others'.

Being with mothers, shows that rather than just taking on junior doctors' roles they have used their midwifery skills to promote normal labour thus replacing junior doctors' activities with their own skills. In spite of their presence in the birth process, professionals actively construct decision-making partnerships with patients and judiciously use technology to modulate that relationship. An interesting concept was the ability of the Midwives to use their physical and mental attributes to help mothers manage their pain as an alternative to epidural pain relief.

Apart from helping mothers in labour, Midwives see it as their job to help others learn. Shedding light shows midwives as learning enablers, to less experienced professionals. To do so midwives have learnt the essential competencies, which have enabled the midwives to extend their practice and care for mothers and to some extent to independently look after mothers and resort to calling for medical aid only when necessary. Thirdly, acquiring night vision is about working with others to ensure safe care. Midwives use their relationships with others to form a cohesive network to construct a safer future for the newborn.

Acquiring night vision is focused on practical aspects of care delivery particularly the midwives' ability to provide leadership in creating care with patients and incorporating technology into decision-making. According to Cheung-Judge & Holbeche (2011:282) leadership is increasingly defined ...'rather as a process, that engenders and is the result of relationships that focus on the interactions of both leaders and collaborators'.

Midwives seem to have developed a system of learning and educating themselves and others. Midwives seem to have presence. Through their personal experience, they have been able to make themselves instruments of care delivery, workplace based learning while holding a coordinating role.

Acquiring night vision shows the direction giving midwifery as a presence at night. Others have described presence as the ability to 'use yourself to make

difference by giving, risking and providing a force that can be experienced' (Cheung-Judge & Holbeche, 2011:149; Benner, 2000:57). Midwives give direction to others and take balanced professional risks to provide the capacity that keeps the obstetric-Paediatric interface viable.

It seems that midwives are able to see social connections and have established a network through which they bridge and connect otherwise disconnected people including, patients, peers, juniors, professionals from other disciplines and external agencies. It seems that midwives are strategically placed as change agents in the Obstetric-Paediatric interface. A recent study reported in a different context and referring to medical and nursing staff about how a doctor relied on the connectivity of a nurse had established in their organisation to bring about change in the pre-operative assessment through a nurse-led pre assessment clinic. The similarity in the medicalised culture of the obstetric/midwifery arena allows resonance with this example. The aim of introducing a nurse-led pre-operative assessment was to 'free up time for doctors, reduce cancelled operations and improve patient care' (Battilana & Casciaro, 2013:64).

The study concludes that those who are well connected in an organisation are always better at persuading people to adopt new ways. Through acquiring night vision, midwives appear well positioned to create both convergent (small scale) changes such as implementing guidelines and divergent (large scale, disruptive) change such as extending roles in the Obstetric-Paediatric interface. Midwives are change agents, who are able to sustain initiatives

such as the H@N through detecting strategic risks and acting on them while teaching others.

Chapter 6

Forming a night time community

6 Introduction

Forming a night time community uncovers a tacit and informal system of managing clinical risks in the Obstetric-Paediatric interface. Forming a night time community describes how experienced professionals in the 'Hospital at Night' of the Obstetric-Paediatric work system have tacitly self-organised around one purpose. The purpose has been that of finding practical solutions to patient-related risks surfaced by the EWTD (European Work Time Directive).

The findings suggest that this purpose seems to have had a huge influence on working and learning interactions. Indeed Roth and Schwegler, (1990) have posited that biological systems (thinking human minds) have such emergent properties because of altered interaction brought about changes within the environment.

While the NHS acknowledges the existence of spontaneously forming communities of practice (Wenger, 1998) such communities are viewed with suspicion by managers and complex tools such as activity costing, skill and case calculations, including critical incident reporting to control such spontaneous activity are sent into teams for implementation. Data from this study suggests more often than not, such policy documents to tighten control end up on ward shelves 'gathering dust'.

What triggered this category was a comment made by one of the interviewed Obstetricians. Obstetrician 1 said that most of the *'rules formulated by the Trust ended up on shelves'*. The initial reaction was that could it be that 'change initiatives' were being frustrated by disengaged professionals. The curiosity to find a cabal of anti-organisational activists spurred further exploration for confirmatory instances. Instead, the study found an informal system that has developed self-organising behavioural rules based on patient need.

As the analysis unfolded, the self-organising rules professionals worked to at the interface, it turned out were easy to remember versions of the issued policy documents that were gathering 'dust' over the shelves. Versions of such simple behavioural rules reappeared regularly in different interviews. When human brains interact with others in naturalistic complex settings, they are primed to create, adopt and use simple rules to create an emergent operational system, which is understood tacitly by everyone (Klein, 1997; Gigerenzer, Todd and et al, 1999)

The interviews, being in-depth, allowed professionals to speculate on what could be possible. Since the interviews were enveloped in a discursive atmosphere, professionals had a chance of responding to questions such as 'what-if this or that happened or were possible', which made them visualise possible scenarios. Forming a night time community is the constructed model of a community of professionals who 'see and act' creatively in face of

reduced numbers of doctors and a need to nudge mothers and doctors to facilitate or experience more natural births (Williams, 2008; Thaler & Sunstein, 2009).

The findings sketch an informal framework of working, which could be nuanced into a formal model of collaborative practice. 'Forming a night time community' has four subcategories, 'Seeing and acting on risk', 'Acting with responsiveness to fundamentals of care', 'Using time profitably' and 'Encouraging collaboration'. There was evidence that some professionals were seeking to develop tools and measurements they could use to improve their service of 'Hospital at Night'.

Table 4: Forming a Night time community

Major category	Subcategory
Forming a night time community	Seeing and acting on strategy risks Acting with responsiveness Using time profitably Encouraging collaboration

6.1 Seeing and acting on strategy risks

The subcategory shows how professionals 'know' that change is inevitable and how they must embrace change. The subcategory focuses on professional perceptions of how experienced professionals address positive and negative strategy risks in the Obstetrics-Paediatric interface.

The study shows instances when through shared values about patients' needs, professionals have huddled together as an inter-professional community rather than as Obstetricians or Paediatricians, Nurses, Midwives and Radiographers. 'Seeing and acting' is about embracing changed relationships with patients, colleagues, organisation and knowledge.

While professionals are keen to do what they can to improve clinical services, faced with EWTD and financial constraints, there is a strong possibility that two systems are at work in the Obstetric-Paediatric interface, one situated and the other more formal and remote.

'...what stops us being strategic is that somebody wants something tomorrow erm...our commissioners, our taskmasters, our paymasters want a piece of work measuring, evidence and anything we want to change has a massive bureaucracy to make it happen, that sometimes, we short-circuit and don't necessarily say we're short-circuiting, out of sheer frustration'.

(Midwife 5)

Professionals understand their work system well enough to cut corners.

However, a more enduring image emerged; that of professionals feeling compelled to respond to strategic questions from 'stake holders' and feeling 'stressed' to differentiate and begin to act differently. Without prompting, other interviewed professionals seemed to acknowledge that priorities do change overnight and frequently quite sound strategic initiatives are abandoned as key people are moved to the next task.

'We are good at what we do clinically but also I see that we can actually, you can improve on the efficiency of what we are doing if given the opportunity but if we start to voice our concern about an issue or two, well then we are troublemakers.

(Obstetrician 1)

Rather than clinicians being troublemakers, it has been suggested that formal management is much more inclined to use a command and control culture rather than look and work with emergent properties (Coffey, 2010).

Notwithstanding this, it may also indicate that the strategy itself is dynamic and professionals differentiate quickly and cluster around perceived concerns.

The study found that the most frequently employed method of huddling around a problem was through meetings. Some participants felt that managerial meetings organised by remotely placed managers were more frequent. Increased frequency of meetings may be an indicator of work system stress and a need for professionals to differentiate and address newer challenges. It appeared also that at such meetings managers not close to the work place experience difficulties with experienced situated professionals.

One professional narrated what happens to those who show dissent.

'They just get side-lined. They are pushed aside. I think the power of managers or clinicians come managers they can fast track the career of people. Okay we are consultants, we've reached the top of our careers but we always like to have new challenges'

(Obstetrician 1)

The study found that the existence of perception of 'taskmasters' and 'troublemakers' may be a sign that the system has inbuilt self-regulation enabling professionals to haggle over a reality that remains unknown to them (Luhmann, 1995). Rather than excluding certain people, this may signify that professionals within the system exercise discretion over their values.

Yet the fight for control can be more deterministic and there was a hint of a dominant tacit discourse within the Obstetric-Paediatric interface that indicated that managerial work was more important than clinical work.

*'We are just pushed aside. 'You just carrying on with your seeing patients and we'll look after the rest and also say yes sir as you go out'.
(Obstetrician 1)*

It seems that this may indicate a work system stressing towards more operational differentiation. Alternatively, it could be that while managers recognise that they cannot do clinical work as well as manage; clinicians feel they can do both effortlessly because they are in the situation.

This might indicate that those *'who push the clinician aside'* are fighting for a piece of action or that two approaches to seeing the world are (deterministic vs. naturalistic) jostling for position. While it may not be recognised, a participatory forum for asking and answering questions about services already exists in the Obstetric-Paediatric interface.

Furthermore, there was a suggestion that managers demand respect from clinicians. This may be indicating a hierarchical system that tacitly encourages mindfulness through 'I-Thou' relationships. Maybe the professionals within the system have also started laying down ground rules about acceptable behaviour in the emergent community of practice. Further analysis seemed to show that the discipline based divide separating clinical services, business and community extends to the use of business tools in clinical areas.

'the hospital had tools such as strategy-heat maps to monitor strategy risk'

(Senior Midwife 2)

Other professionals felt that such methods quickly go into disuse. Yet risk heat maps as a method of monitoring strategy risk and its usefulness has been replicated in different settings (Kaplan, 2009). Even with their replicated success, heat maps are not routinely used in the Obstetric-Paediatric interface. Another professional graphically described what happens to some guidelines once the interface has complied with strategy execution objectives.

'It just passes through as a tick-box and is all filed. It is all kept very nice and neat on the labour ward folders'.

(Obstetrician 1)

Once the tick-box exercise is over, documents may be kept 'nice and neat' because the system adapts and deploys tools for specific purposes after which they go into storage as soon as they are not required with the hope that they might be of some use in future.

In a rapidly changing naturalistic system, strategy heat maps and guidelines may have a very short life span and once they have served their purpose they are abandoned for new maps and guidelines as the healthcare paradigm shifts and ushers in new discourses. This may indicate a self-sustaining Obstetric-Paediatric interface system that is constantly differentiating and developing new tools.

It may be that what lies gathering dust on the 'shelf' is evidence of the journey already travelled. This may indicate that some professionals have become more aware of a perishable knowledge base and they are speculating about what it means. One of the hallmarks of leadership is finding order in situations that appear chaotic. Menkes, (2011) suggests answering the question as to why some tools end up gathering dust on shelves, is a sign of leadership. Rather than settle for the first impression, professionals must also answer such taken for granted observations (Menkes, 2011).

This is a community within the clinical system, which is capable of deciding on what to adopt, discard or preserve just in case. Nonetheless, in a culture of professional discretion, it is possible to discard a useful tool before it is tested and adapted to the work system (Karsh & Holden, 2007). Gosbee & Gosbee (2007) suggest a framework for determining usability of tools because abandoning tools and equipment could be quite expensive for a system that is already straining under financial pressure. To encourage reflective learning, insider research and in particular action research have become well recognised methods for studying practice and improving it (Sikes & Potts, 2008).

It appears that the pace at which the strategy context changes and generates new questions in response to prior questions or perceived system stress surprises some clinicians. This change appears to some professionals as a lack of strategy and inconsistency.

The inability to carry out strategy initiatives to conclusion has been termed strategy execution failure (Norton, 2011). The study found that although it seems that, the Obstetric-paediatric interface might be 'the dumping ground for strategy such as decreasing the rate of Caesarean Delivery and EWTD, the interface is the place where strategy is actually animated and changed.

Questions are asked in the interface. Success or failure is under the control of clinicians within the Obstetric-Paediatric interface. Although they are used to slower pace at which clinical processes change, professionals seems to have adapted well to inter-professional working with 'taskmasters, troublemakers' and 'managers'

Given the evidence uncovered during theoretical sampling and memoing, the Obstetric-Paediatric interface work system was ready for change to an inter-professional work system even without the EWDT. There is already a strong tacit culture of inter-professional working and learning, waiting explication with further empirical studies.

The study concludes that clinicians have yet to wholly embrace change and incorporate business tools methods such as 'Risk Heat Maps' in the routine work system. Clinicians may frequently reduce differentiation stress by reverting to methods of operational management familiar to them especially command and control strategies. In the next section, the study examines further tacit ways of acting or capabilities, which drive the informal 'Hospital at Night' community.

6.2 Acting with Responsiveness

Acting with responsiveness describes purpose and readiness to meet patient needs through directing and pacing the care processes towards desired outcomes. When acting with responsiveness, professionals execute their obligations to patients and co-create care with patients. To do this professionals apportion the time it takes to carry out tasks to completion. In the Obstetric-Paediatric interface, an implicit rule is that professionals are individually and collectively responsible for realizing quality outcomes for patients and the organisation.

In other words, acting with responsiveness reflects an awareness of professional accountability within the professional community (Stern, 2006; Dresner, 2010). During interviews, professionals were quite confident about the care they provided and were keen to improve on what they did and seemed collectively tied to this shared value. All professionals who participated in the study were able to articulate their role in providing care to mothers and taking responsibility for ensuring safety, effectiveness, equity and timeliness of care.

In 'Crossing the Quality Chiasm' the Institute of Medicine (2001) proposed six specific aims for improvement. According the committee, healthcare should be:

- safe
- effective
- patient centred
- timely
- efficient
- equitable

(Corrigan et al, 2001)

Some professionals also indicated that another important measure of their professionalism was the extent to which they advocated for 'patient involvement' in care delivery. For these professionals 'involving patients' includes getting to 'know mothers' and their special healthcare needs. Having this understanding enables professionals to 'individualise care'. Individualised care in this study means paying attention to the medical as well as the 'emotional and spiritual needs' of patients.

'There's a lot more catching up to do to make sure nothing gets abandoned or women don't get abandoned'.

(Senior Midwife 4)

Another professional equally valued professional presence in the care process

'Well, exactly and we know and we know by experience and we know research bears us out that if we can stay with that woman and support her properly.....you know....better outcomes in terms of maternal wellbeing, better outcomes in terms of, you know, baby.....you know, all the health promotion...'

(Senior Midwife 1)

Immediacy of response was valued in other areas too

'It has a massive affect on the patient care and the patient getting the right treatment and also on the staff itself and on the pressures on the department because we can't stop ambulances arrivingwhen after being here twenty-nine, thirty years, you in your own mind have got an idea of what is wrong with this patient..'

(Senior nurse 1)

Comparing across professions, all professionals find it distressing when critical information is missing for instance when analysing patient's samples.

*'I once said we couldn't test a sample. There was a problem with that sample. I forget what it was now and er the guy was insistent that he had a result on this one and his comment was well any result's better than no result at all. Now it took me a while to explain to him that that was a very, very dangerous way of thinking about things Now I don't need to tell you the dangers of an incompatible ABO blood transfusion'.
(Senior Medical Laboratory Scientist)*

All professionals make sure that they able to uphold safe practice

*'But, yeah. I mean, every...everywhere you do get minor mistakes being made. We do erm....I mean, from an A&E point of view, you'd hope that less mistakes are made because we look at the images and we send the patient back with a ticket with a red dot or no red dot'.
(Senior Radiographer)*

Selection and preparation of midwives reflected attention to this personally exercised readiness to act responsibly

'Er....We start with accountability and how well the midwife understands that before she takes on fresh areas because.....if she doesn't have, you know, a full conversant with her personal professional accountability...'

(Midwife 5)

Secondly, in the Obstetric-Paediatric interface acting with responsiveness describes being enabler of naturalistic birth process. Professionals recognise how enabling naturalistic birthing differed from instrumental birthing. Continuing interaction between patient and professional shapes care as opposed to the instrumental rationality of Caesarean section where solely professionals make final decisions.

'Well, I think from, I mean, if you are very much a midwife, normality focused, there's nothing more satisfying than knowing that you've contributed to enabling, well a woman birth's herself but to assist in that process and knowing that if you've done, you know, your skin to skin to contact and initiated your breast feeding. Given all your relevant advice, you know that you've given that baby the very best start'.

(Midwife 2)

Midwives use their role as enablers of 'normality' to segregate and categorise the service. For example, where variation appeared to mask the care process to some professionals, midwives appeared to expect and accept variation as demonstrating their capacity to co-create care with patients.

One participant articulated how acting with responsiveness also meant being an advocate for patients. Acting with responsiveness as much as possible seems to be about acting with conviction and adapting the service to local healthcare conditions. Referring to patients who do not want to 'appear fussy', one professional said

'even those who do not say anything should be encouraged to say something'.

(Midwife 2)

The study identified that acting with responsiveness also stood for readiness to differentiate, and hone skills in fundamentals of care. Professionals make a conscious effort to renew their commitment to improving care practices

to improve quality...of services to patients. after all that's what we work for isn't it? We're working for the patients. And it's a I think it gives us extra job satisfaction as well knowing that we're giving the primary indication.....and er I mean you will get the odd things that slip through the net and it might not be picked up by erm the doctor in A&E. We might not have seen it but then it gets a third pair of eyes looking at it by a radiologist doing a report so...

(Senior Radiographer)

In addition, there seems to be a mood for developing new models of care

'It is the construction of the whole thing. The structuring, actually, it is the restructuring of the whole service. The concept of providing health'.

(Obstetrician 1)

The study identified acting with responsiveness to be an important 'theory in action' that professionals referred to in their drive towards better outcomes for patients (Schon, 1987). Acting with responsiveness shows that professionals have developed a tendency to assume full responsibility for the care delivered in the Obstetric-Paediatric interface.

Acting with responsiveness shows that rather than aim for immediate gain, professionals have broader societal goals, which they have tacitly embedded within their professional practice. Elsewhere, others too have found utility in models of care generated from evidence provided by situated professionals (Erickson & Ditomassi, 2010). From a business perspective, it seems that professionals are creating value with those who matter, the users.

6.3 Using time profitably

Time is an important variable that constantly confounds the responsiveness of the Obstetric-Paediatric interface work system. Using time profitably describes how professionals invest proportions of their time and resources in delivering a high quality service (Amabile & Kramer, 2011). Literature suggests a high incidence of burnout among professionals working in conditions similar to the Obstetric-Paediatric interface (Schaufeli, 2010).

Kaplan & Anderson feel that understanding how professionals apportion time or differentiate capacity can lead to a better estimation of costs related to producing care and quality improvement (Kaplan & Anderson, 2007).

Although the organisation does not measure clinical activity in terms of time, the findings point towards professionals who recognise and have taken measures to estimate the cost of a delivering care in terms of time it takes to deliver care.

*'You're in the room one hundred percent of the time, giving her full information erm as much as you can, research based up to the date'.
(Senior Midwife1)*

Within a shift, midwives could find themselves engaged in other time sensitive processes such as an emergent emergency, educating patients and families, mentoring more junior midwives, or teaching junior doctors.

Midwives find that the time required to help patients learn about their condition has lengthened considerably. The information patients require sometimes could be quite complex, yet there was no system to help midwives give this information to mothers. Midwives find ways however of giving satisficing information (Gigerenzer, Todd et al 1999)

*'How many statistics? How many times does this happen? How many times does that happen? All the risks, all the benefits of what she's, what her choices are. She expect to have erm if she want an epidural in the middle of the night for pain relief, she expects to have that there and then.'
(Senior Midwife 1)*

Apart from providing evidence-based care, the senior midwives also coordinate the service and act as line managers. To manage the shift, work allocation and establishing clear lines of supervision are the priority tasks of the team leader. Asked about how such a busy schedule is managed, one participant indicated that senior midwives exercise flexibility with a propensity to offer support to other professionals and mothers during each shift. Asked to go into more detail, a senior midwife elaborated

And so that's mainly my role at night. That's the first thing that I do is allocate the workload. Erm...I then have to provide support to the other junior midwives as the senior midwife on duty. To be their first-line of call if they've got any concerns or worries in the room rather than go straight to the medical staff, come to me first because I'm the expert in normality if you like. And if I've got concerns then I'd refer to the obstetricians.

(Senior Midwife 1)

With a clear network of support and supervision during each shift, professionals are able to distribute the decision-making intensity through the team. According to Klein's recognition model '*...decision makers can size up a situation as typical, can identify a typical reaction to the situation, and can evaluate that action by projecting it forward*' (Klein, 1997:12). Professionals reported that tasks since EWTD have tended to vary numerically and qualitatively within a shift.

'Yeah. what it is, it very much depends on the demand of the service.
(Senior Midwife 3)

Without stating it in words or referring to complex calculations, professionals know that decision-making can be quite exhausting and take steps to distribute it. Indeed a number of studies show that work demands (decision-

making) may lead to emotion exhaustion (Schaufeli, 2007). Professionals have learnt from experience and have adapted the service accordingly. The Obstetric-Paediatric interface has had to learn from experience.

One professional reported the unceasing process of emotional exhaustion

Its very dif well it's a continuous erm it's not just like it's a one-off. It's a continuous month on.....thing all the time, you know, the pressure, you know, well like medicines management...trying to reduce the rates of caesarean sections. Lots and lots of national statistics that we need to meet these criteria. You know, and sort of trying to deal with it there and then as opposed as to having to deal with it as a big formal complaint later on.

And staffing as well just staffing alone in itself was an issue and it wasn't actually I can't say that the midwifery management were really good in trying to manage that in terms of putting our levels of staffing up but then you can't always predict sickness and you've got....

(Senior Midwife 4)

In contrast, in community settings away from the Obstetric-Paediatric interface where professionals have short engagement with the service and staff change frequently, emotional work over a longer course has had a telling effect on the service. Patients see different faces as new professionals come in to replace leavers, which create difficulties for patients.

According to one participant, mothers 'clam up' until they see a face they can recognise.

'erm and it's almost labour's a very personal thing so it's almost you you're almost intruding...Particularly if you haven't got any rapport with that family'.

(Senior Midwife 3)

This lack of rapport as professionals change may increase rather than shorten the time it takes to co-create care with mothers. According to this

professional, difficulties with establishing rapport with service users may be causing the organisation to incur huge costs in out of hospital settings

'There's been an influx of quite a few more community midwives recently.....and there has been quite a lot of sickness erm on the community side. There's been quite a lot erm a few midwives have been on been on maternity leave themselves and so erm quite a few midwives have inherited cases on a temporarily or on a part-time bases and some of the mums erm may have seen as much as five or six different antenatally and therefore, couldn't name a particular midwife as their own midwife. Erm A few geographical changes and rearranging teams and things. Erm It's been a bit of a logistical problem'.

(Senior Midwife 3)

It seems that professional capacity utilization by uncoordinated patient centred care initiatives is substantial.

Recent studies in healthcare indicate that the time constraint is an important variable in costing healthcare (Kaplan & Porter, 2011). For some community midwives, there may not be just enough time to do everything they wanted to do with patients within a shift. It is unsurprising that a number went on sick leave, workload and time pressure account for nearly half of the variance of burnout (Schaufeli, 2007).

The study found that through reflecting on such stories, experienced midwives and other professionals could estimate the time it took to complete certain tasks, develop shared strategies for addressing such problems and build practice resilience.

'you need competences and nerves of steel'. ...You know, we are being severely tested there because some women cannot cope with labour pain.....and it is research evidence that if the midwife can stay in the room with the woman...and support her adequately, then her need for pain relief is reduced

(Midwife 2)

Staying in the same 'room' with the mother, begins with establishing rapport.

However, professional life in practice is not as straight forward as that.

Professionals in the Obstetric-Paediatric interface within the same allocated shift time perform other activities, which are equally vital for the reputation and viability of the unit.

The study found that to fit in with the time sequence of events, senior midwives had to make judgements about a number of activities crucial to patient care, which professionals could or could not perform. For instance, there were issues regarding professional time within the work system, which had resulted in a rationed epidural service.

'unfortunately, our service doesn't offer that. Erm....With it being a small district general hospital, we don't have a twenty-four hour epidural service for maternal choice.

(Senior Midwife 2)

Another colleague elaborated

'We have, obviously, epidural anaesthetic cover twenty-four hours a day, seven days a week but there's only one anaesthetist in the hospital at night and there's the consultant on-call at home. The anaesthetist covers ITU, he covers the whole hospital and there could be other cases in theatre, any emergency in theatre. If there was.....so in that case, if the...and the anaesthetist could have been busy all day.

(Senior Midwife 3)

In keeping with the spirit of co-dependency, midwives recognised that

Anaesthetists had other time sensitive activities to perform that competed with

epidural insertion. Professionals have to juggle emergent activities in the interface.

'... in that case if a woman comes in with no risks factors and requests an epidural in the night, there is agreement that the anaesthetist doesn't have to come in the night'.

(Senior Midwife 4)

The Obstetric-Paediatric reaches agreements about the feasibility of carrying out certain activities by substitution. Rapport and emotional nearness are important alternatives to epidural. Professionals confirmed that should naturalistic methods fail to alleviate the distress of birthing; an emergency epidural service is available which Anaesthetist 1 confirmed.

'We were told if there is only a medical reason for the....you know....like pH of something like that where there's a medical condition associated with that pregnancy, you are told, you know, if that is urgent then you go and do it'.

(Anaesthetist 1)

The study found that embedded midwives were reliant on memory, recognition and experience. They used limited technology and relied more on emotional nearness with patients and other professionals to support their clinical judgement. Furthermore, the study found that the Obstetric-Paediatric Interface had started organising itself around the professional capacity needed to offer a greater variety of services. Without being explicit, the study established that professionals had begun to link the performance of the work system to human resources in several collaborative ways.

6.4 Encouraging collaboration

Encouraging collaboration focuses on an idealised architecture of the work system to maximise patient outcomes. Professional imagination on possible ways of encouraging collaboration ranged from views on existing

relationships, redefining professional boundaries, improving professional assessment and finding ways of measuring patient outcomes. Although professionals were keen to support the Trusts strategic objective on the EWTD (achieve compliant duty rota), professionals were aware that the initiative had generated risks in patient safety, the workforce structure and education.

To interviewed professionals, encouraging collaboration was not about what individuals were doing or not doing. While this is important, they see individual performance as a by-product of the quality of working and learning around identified risks. One professional was keen on creating conditions for a system wide reflection about the quality of clinical leadership

'I think we have to pause in the pace of every day life to consider where it is we're wanting to take the service and what leadership we're wanting to provide the team and be very clear what we're trying to achieve and endeavour to communicate that'.

(Senior Midwife 5)

Professionals valued existing relationships and saw such relationships a basis for a more nuanced collaborative work system. One professional summarised the sense of community feeling which already exists in the hospital.

'Erm....It helps in a smaller hospital I always feel because you frequently know who you are talking to down the telephone and it makes such a difference. That degree of communication where you actually know the person you are talking to does make a big difference on how well things are done, how well you cooperate with each other as well'.

(Senior Medical laboratory Scientist)

Another professional was keen on maintaining and creating a caring environment in which professionals had time for each other and were able to feel relaxed about working together.

'Erm...It's about building confidence. It's about erm providing support. It's all the other things we've already discussed around, you know, giving people the confidence and freedoms to work in new ways without them feeling that they'll be some punitive or sad fallout from that. Erm...And I think that what is most important is that, as an organisation, we value all of this, as oppose to the continual short-termism'.

(Senior Midwife 5)

To encourage mingling and togetherness some professionals spoke about developing extended or shared inter-professional competences and performance measurement.

'I have worked in units where actually midwives are trained, especially in a small unit like with less doctors, midwives are trained to do straightforward Vontouse delivery, straightforward lift out forceps and they do it very well '.

(Obstetrician 2)

Another colleague added

, 'and they are auditedactually, the work is very much like a registrar doing the same thing. If they are trained to do it and they are given the competence to do it'.

(Obstetrician 1)

An Anaesthetist explained how he had trained professionals in another country

'We have thirteen districts and all the districts, we train the nurses, they go and to....the only nurse anaesthetist completely manages everything, intubation, everything. They do, of course, they don't do major surgery but normal caesarean sections, those kind of sections are done by the nurse anaesthetist in Africa because there're only two anaesthetists for the whole country'.

(Anaesthetist 1)

Professionals working in the 'Hospital at Night' recognise the value of such hybrids and at the same time they value who they are as defined by what they do. When compared across professions, professionals expressed similar views about extending roles across traditional discipline boundaries with a focus towards better outcomes for patients. One professional had some views about extending technology into the night through extending roles of technologists.

'Yes. There is a thought that perhaps radiographers could be trained to do CT scanning, maybe just heads because of the new stroke treatments. 'could reduce the time to CT scan and that could appeal to several professions', for example surgery, medicine, Paediatrics and Accident and Emergency. I don't think there's quite the demand for ultrasound out of hours at the moment'.

(Senior radiographer)

Extending use of technology into the night such as ultrasound could influence the delivery of fundamentals of care are delivered. According to one source, monitoring with foetal viability with ultrasound can direct management of pregnancy and control costs (Tulli & Odibo, 2011; Wolberg & Norwitz, 2009). In the absence of extended technology, Midwives have developed ways of managing the risk associated with limited access to ultrasound at night.

'we generally rely on mother's felt foetal movements, we only use a portable ultrasound to confirm foetal heart rate or position of the presenting part'.

(Senior Midwife 1)

Furthermore, Ultrasound could be an important guide to induction of labour and in that way control Caesarean delivery. Baschat (2011) recently pointed out that combining umbilical artery Doppler and foetal venous Doppler could

be used to determine how often to monitor the foetus when delivery is not yet an option:

'In the presence of positive umbilical artery end-diastolic velocity, clinical deterioration is unlikely to occur within 1 week. On the other hand, when umbilical artery end-diastolic velocity is absent, at least twice-weekly surveillance is necessary. Reversal of umbilical artery end-diastolic velocity and/or increasing venous Doppler indices, mandate higher testing frequency, up to daily testing. Reversal of DV a wave increases the risk for an abnormal biophysical profile score within 1 to 8 days...at least daily testing is performed in this setting'.

Further questioning on extending roles showed that Midwives also recognised that a hybrid practitioner (between, doctor, technician and midwife) was a possibility. Indeed, in critical care, hybrid professionals deliver care that is comparable to medically qualified professionals (Cramer, Orlowiski & DeNicola (2008). For example, not everyone was keen on moving into a high profile extended role that may include undertaking operative procedures.

'Well, I think as well, you've got some of those midwives who do change, that's exactly it, they're not a midwife....in my philosophy, they are not a midwife anymore. They have become something else.'

(Senior Midwife 2)

Equally, professionals were aware how their identity is enhanced by type of participation in the practice community from the affirming traditional uniform to more developmental progression.

'I think wearing a navy uniform does have an impact'.

(Senior nurse)

For example, developmental progression was evident in the labour ward.

Although dress distinction existed, the study found that Midwives were

clinically undeclared frontline managers and did managerial things such as keeping a tab of bed numbers.

'Senior midwives so that opportunity has arisen then for them to take on each er sort of like a snippet of the managerial part of it and then just feed it all back to K...'

(Senior Midwife 5)

They also activate care processes

'we're one of the first-line people who will instigate treatment, call, you know, call, help and manage the hospital at night'.

(Senior Midwife 2)

In addition, they have an identified leader who outsiders recognise.

'Mm I think the labour ward, the labour ward tends to work a little bit more like that because obviously, ... is the senior as the Band 8, is obviously the specialist...'

(Senior Midwife 4)

The specialist Midwife has expertise. According to some interviewees, the manager also leads on clinical governance audit and clinical research. The specialist midwife also takes on management issues but the roles are ambiguous, fluid and delegation relied more on altruism of other professionals than command and control.

'there's quite a string of things to do and if you show an interest they will make a beeline for you, identify you'. 'You can to a point in terms of erm career development if you want if they're looking down towards that path, you can integrate them and involvement and things erm or it really is, most of the time it's just 'cos you've got too much on and you just need to get somebody else to do it'.

(Senior Midwife 4)

Furthermore, professionals revealed more rules of thumb about how they work together. For example, they recognise that altruism may lead to a culture of unrecognised work.

'It's meant some people have been banded how they expected to be and the majority of people have been banded lower than what they've expected to be with no prospect of increasing their pay banding. So there's a lot of people on Band 5, whereas they would've been the senior II level'

(Senior radiographer)

Professionals were committed to rules of acceptable behaviour such as being fair and aware of others feelings

'Erm...I would never seek to encourage a member of staff to step over the line manager but if they feel that for some reason that's difficult to explore with their line manager or their line manager, perhaps, is feeling particularly frustrated at this time and doesn't feel that they can take on anything new and changed in the the delivery of the service in their area, then'

(Senior Midwife 5)

Recognising that mentorship at night might not be as good as during the day was important in the process of establishing a nighttime community.

' And for some junior staff, of course, then that leaves them...leads them into some anxieties, doesn't it, as to whether or not the feel that they would have been expected to manage the situation or is it reasonable to say this situation is beyond me. I need more senior help and as you say, the mentorship at night is not there because it's working on staff on the ground and the back-ups at home.

(Senior Midwife 5)

Encouraging collaboration shows a community of professionals with a shared purpose. Professionals felt that use of collaborative techniques could transform the night time community into a viable learning community. They have developed simple rules of identity and role definition and in that way created an environment in which they work with others but also in which learning and professional growth can take place.

6.5 Conclusion

The findings suggest that the Obstetric-Paediatric interface is an emergent informal night time community system of managing clinical risks arising from the EWTD strategy. The category is described through four subcategories, seeing and acting on risks, acting with responsiveness, using time profitably and encouraging collaboration

Using interpreted evidence, 'Seeing and acting on risks', sketches out perspectives of an emerging night time community of professionals wishing to improve patient outcomes while maintaining a viable service. This study suggests that forms of inter-professional working and learning (IpWL) are emergent in naturalistic settings and interventions ought to take into consideration situational assessments made by situated professionals.

Seeing and acting shows how despite the sensation of chaos, professionals appeared more concerned about making each adopted strategy to healthcare delivery workable despite the stress entailed by differentiation. They have a tacit culture of asking and responding to questions. Professionals exercise a lot of discretion on what they do but feel compelled to respond to. However, it is also possible that professionals do not recognise how obliged they feel to the other. In the interface metaphor is used to describe the stress questioners cause such as 'taskmaster', troublemaker', or indeed 'Bogeyman'.

Acting with responsiveness is an important 'theory in action' that professionals referred to in their drive towards better outcomes for patients (Schon, 1987).

Primarily, 'Acting with responsiveness' refers to professional modus operandi in the Obstetric-Paediatric interface. Professionals rated immediacy of response to mothers and baby as a fundamental requirement for working in the Obstetric-Paediatric interface especially when under staffing strain.

Using time profitably unveils a 'gift culture' of ongoing modelling and informal mentoring. What this study shows is that interviewed professionals have found ways of staying happy, maintaining effectiveness, and recycling motivational energy to deliver a patient centred service.

Encouraging collaboration describes a group of professionals with a common language and outlook used by professionals to motivate others towards shared participation in the redefinition of the work environment to improve patient outcomes (Wenger, 2008).

The purpose of mitigating risk related to EWTD has shaped professional views about what they want to achieve, how they think about their work and the value they attach to their relationships with other professionals.

Chapter 7

Working in the Dark

7 Introduction

The category 'Working in the dark' illuminates the Obstetric-Paediatric interface by drawing on and connecting with the backdrop provided by insights gained from the three major categories ('Being scared in the night', 'Acquiring night vision', and 'Forming a night time community'). It is the 'core' in that it pieces together and reinterprets '*complexities, views and actions*' (Charmaz, 2006) as situated knowledge in the Obstetric-Paediatric interface.

By getting to the roots of these different understandings, 'Working in the dark' shows how situated knowledge could enhance the quality of learning about risks arising out of change strategies within the interface. Without compromising patient safety, the purpose of the Hospital@Night initiative, which included the introduction of a shared rota and extending midwifery roles to cover reduced junior doctors' working hours, was to meet the European Work Time Directive (EWTD). It was an expectation that collegiate negotiations and methodologically sound inquiry would inform the implementation of the Hospital@Night initiative (DoH, 2005).

Moreover, according to one source, capacities for recognising risk, getting the right educational preparation and forming purposive interrelationships, are important risk management cornerstones (Kaplan et al, 2009). Yet organisations can be 'blind to risk' and ignore preparing for 'what could

happen that has yet to happen' (Douglas & Wildavsky, 1983; Lupton, 1999; Taleb, 2007).

'Working in the dark' represents a perceived state of uncertainty and unpredictability and throws new light on an arguably unstable state. 'Working in the dark' suggests that the participants were not aware of a formal educational structure within which to address strategic risks during the implementation of the H@N initiative. Professionals were alert to these risks, however.

The study identified a robust operational management structure that works through senior professionals. Unsurprisingly, to achieve focus and alignment within the workplace, all strategic initiatives seek to relate to internalised values (e.g. professionalism, empowerment) (Kaplan & Norton, 2001, Kotter, 2012). By appealing to these values, the managerial arrangement has had paradoxical effects on strategic risk management. Professionals with influence in most instances direct purposive effort at mitigating risks arising from day to day operations rather than reflect collectively on risks related to the choices they have in designing service delivery.

Theorising through three subcategories enrich 'Working in the dark' as a 'core category' by further exposing and illuminating on hitherto 'hidden positions, relationships, networks and situations' (Charmaz, 2006: 230). 'Feeling a bit lost which draws on 'Being scared in the night', theorises how assumptions about managing clinical services construct indeterminacy. 'Losing things'

draws on 'acquiring night vision' and reveals some gaps in contemporary education. 'Fearful professionals seeing risks' extends from 'forming night time community' and shows how the instability of the interface renders every structure frustratingly incomplete.

Table 5: The core category working in the dark

Category	Subcategory	Inter-connection
Working in the dark	Feeling a bit lost	Being scared in the night
	Losing things	Acquiring night vision
	Fearful professionals seeing risks	Forming a night ime community

7.1 Feeling a bit lost

'Feeling a bit lost' focuses on managerial structures with conditional potential for contributing to strategic risk. 'Feeling a bit lost' maps discontinuities of joint action across disciplines. The strand drawing through 'Feeling a bit lost' emerged from 'Being scared in the night'. In this instance, it defines professional awareness of differences in types of risk facing the Obstetric-Paediatic interface.

While 'Being scared in the night' is about first impressions of the Hospital@Night in the Obstetric-Paediatic interface, 'Feeling a bit lost' about operations describes steps more experienced professionals take to manage

uncertainty in care processes through ensuring compliance to operational procedures and guidelines. Furthermore, 'Feeling a bit lost' about the system shows professionals questioning organisational assumptions about the relationship between operational management and the human resource function.

In situations where 'Feeling a bit lost' appeared professionals ensured that the sensation did not translate into 'Being scared in the night' through careful understanding of their work system and using override mechanisms developed from experience. For instance, professionals have evolved a rule of thumb for managing emerging problems in the interface. At the beginning of each shift, they redeploy and align care with experience.

*'That's the first thing that I do is allocate the workload'.
(Senior Midwife 1)*

Professionals working together have a way of knowing each other's capabilities. For the experienced senior midwife, it is important that she knows who is doing what, where and how.

Although not articulated as such, it seems that at the heart of teamwork in the Obstetric-Paediatric interface is interaction. Interacting people regroup at the beginning of a shared task and decide on joint action (Blumer, 1969). Apart from allocating tasks, to address 'feeling a bit lost', the senior midwife is also available to support junior midwives.

'Erm...I then have to provide support to the other junior midwives as the senior midwife on duty'. I have to try and make myself as available as possible'.

(Senior Midwife 1)

Another senior midwife confirmed the hierarchy of support. However, she went on to indicate that mentoring was more to streamline managerial accountability than to educate junior midwives. This might mean that a less clinically experienced person could mentor a more experienced professional with higher qualifications. For instance, with limited managerial posts, many clinical professionals never progress beyond Band 6. Since there is only one Band with most professionals, it is more likely that less experienced professionals will be clinical mentors.

The literature on mentoring and coaching encourages use of more experienced people in the organisation to support the less experienced (Brockbank & McGill, 2013; Hawkins & Smith, 2013). A senior midwife reported that one could also drop from band 7 to 6 with ease.

'Band 7, on the antenatal/postnatal ward and that was my role for four years and then you have the midwives just ordinary midwives that are Band 6s. So, you know, at the moment, my role is that if there's any issues I go to the senior midwife that's on duty at the time. Whereas before my role was that everybody came to me...'

(Senior Midwife 4)

Mentoring for management may indicate sensitivity to managing operational risk, however. Managing operational risk may require a different set of skills, which can develop through work relating to better use of personal attributes to motivate others. Cheung-Judge & Holbeche (2011) have used the concept of use of self to describe how a caring culture can increase organisational productivity through offering to others personal gifts of discernment, presence and heart. Equally, by mixing managerial responsibility with possession of

attributes of discernment, presence and heart, it might also indicate that human resource development may at times play a secondary role to operational management in the organisation.

In many organisations, the tendency for human resource function or the development of people to be subservient to operational management has raised concerns (Becker, Huselid & Ulrich, 2001). A senior midwife explained the professional input in managing operational risks

'We obviously get erm, risk forms filled in when things do go wrong and if it's something....sometimes things go wrong and they just can't be helped. Certainly where the management could have been different, then that's addressed...Management look at that risk form or as a senior midwife I certainly look at it and if we can do things different next time, then we strive to do that. Erm...'

(Senior Midwife 1)

There is a strong awareness of operational risk management in the Obstetric-Paediatric interface and readiness to mitigate. Interviewees from other disciplines confirmed this level of operational risk management in the Hospital@Night.

Extant literature indicates that operational risks have more to do with compliance problems or employee behaviour (Kaplan & Mikes, 2011). One professional pointed out how clinical problems translate into compliance managerial problems

'like you have the A team, you know, when it gets past the night-nurse practitioner you have the A team manager....who you can call in from a management point of view. If there's a, you know, bigger incidents than you think. I mean obviously we've got systems in place that if we're getting, for example, if beds are getting er...tight....then, you know, there is an escalation policy to...you know, sort of deal with that.

(Senior Midwife 2)

It seems that operational management for professionals in Obstetric-Paediatric interface is predominantly about managing compliance risks such as admitting every patient to a bed as mandated by the government or other incidents relating to the shift, not managing situated learning. This managerial oversight replicates itself through out the different disciplines.

Patients and other professionals recognise the managerial hierarchy of authority nonetheless. One professional recounted the authority that goes with being sister (Band 6 or 7).

'I think wearing a navy uniform does have an impact. Erm...if I go in people listen'.

(Senior nurse)

Notwithstanding the authority inherent in certain positions, managing compliance risk may surface tensions in inter-personal relationships in a system that relies on expertise for making critical decisions. In a high acuity system such as the Obstetric-Paediatric interface, it can make those who manage compliance risks very powerful figures in the organisation or figures to ignore. Equally, they might become the barrier to learning from the work place.

Indeed, evidence exists indicating that operational management is effective in addressing compliance risks but not risks arising from strategy (Kaplan, 2009). Strategy risk management may require learning that is more purposive requiring more use of self through discernment, presence and heart than authority over others. Another professional confirmed that on her patch she decides on what is important and what is not.

'It is in a way that you look at them (problems) from a managerial point of view'.

(Senior Midwife 2)

Clinical managers who have internalised how the hospital works, it seems can have a lot of authority because they fill in situational reports and file incident reports. They act as policy formulation filters. They are in a position to decide what matters and what does not. Given the high acuity nature of the work system, they will pay attention to what can go wrong in the short term.

The study found that the organisation invests in learning, yet professionals 'feel a bit lost' about the goals of organizational education. It seems that long-term vision through investment in a learning culture unravels in practice because the dominant focus is on the management of compliance risk or fixing operational problems than advancing the capacity of clinical care. A midwife who is also a manager illuminated on the career progression of midwives and their entry into management at Band 6 or seven.

'Er...Perhaps they become a ward manager. Perhaps they become a clinic manager. Erm...Some of them do stay within clinical practice at Band 6 level, ie practitioner level but many have gone on and been promoted to Band 7. Erm...So they're not there for working at that practitioner level anymore. Therefore, you have to train more'.

(Senior Midwife 5)

It seems that newly qualified midwives enter at Band 5 and progress quickly to Band 6. Midwives in Band 7 have both managerial responsibilities and clinical responsibilities. There are a number of Band 7s in Obstetric Paediatric interface. Another professional confirmed this and added

'Mm I think the labour ward, the labour ward tends to work a little bit more like that because obviously,... is the senior as the Band 8, is

obviously the specialist...'. The specialist Midwife has expertise. The manager also leads on clinical governance. The specialist nurse also leads on audit and clinical research.

(Senior Midwife 4)

Importantly, there is senior clinician midwife on the labour ward who is Band 8 with a big portfolio of clinical and managerial responsibilities. Leading on governance, audit (compliance risk management) and clinical research; band 8 appears to be a very busy compliance job. Other than availability to manage compliance risks, the portfolio leaves Band 8 with little time to carry out clinical duties of caring. One midwife at Band 7 reported that

'I'm a senior midwife on the labour suite erm... we are directly involved in care as well as managing, you know, obviously we do have an oversight on ...the ante and post-natal ward as well, you know, sort of how things are running on there might directly affect how things run on labour ward'.

(Senior Midwife 2)

Comparing across disciplines, another professional agreed to 'Feeling a bit lost' about the career advancement scheme. The professional pointed out that professionals are hardly promoted on clinical ability alone.

'So the longer you've been here, the higher up the ladder you go 'ave been here for like twenty-five years, so what they've been taught and what they've picked up on the way, they now adopt as their managerial skills. So what they say goes'.

(Anaesthetist 2)

Another senior midwife confirmed this observation.

'Personally... I've been in the service a long time and I would say when it actually comes down to decision making it's experience. I think you need the combination though, because if you're too academic... my head knowledge is neither of use...'

(Senior Midwife 2)

The expectations for band 7 may be quite high or it may indicate that Band 7 is a managerial post with performance expectations, which do not reflect

clinical expertise and experience. One professional pointed out that at times training accounted for much less.

'There are sort of dinosaurs like me who didn't get any Brownie points for doing their training and things'.

(Senior Midwife 3)

Patterns of managerial promotion so far leave one to presume that professionals do not need advanced clinical qualifications to work as managers. However, if that is anything to go by, then there is little return on investment in education for direct clinical care, which may translate in under investment in clinical education or a culture of learning at deeper level about the care provided by each professional.

At another level, 'feeling a bit lost' describes professional awareness of discontinuities in care brought about by a hierarchical system that places key decision-makers further and further away from the front-line. It appears that some key decision-makers in each operational management hierarchy tend to have limited involvement in direct clinical care at night and some might not even be clinicians.

'There are two types of managers. Those who have no medical or, nursing background...and these are actually at the top of hierarchy and making most of the important decisions. And other managers who are usually midwives ...but the problem is that probably over the last ten to fifteen years, they have not dealt directly with patients'.

(Obstetrician 1)

On comparing disciplinary hierarchies, professionals from other disciplines confirmed the managerial hierarchy and indicated how remote from the clinical situation important decision-makers could be.

'I'm the ...so I've got a line manager and then above that we've got managerial control and so my role I say is looking after the day-to-day running of the department'

(Senior radiographer)

This may suggest a system where the clinical manager (Band 6 or 7) may have room to act and exercise discretion, or a system in which their activity is restricted by remotely placed senior others; increasing the sense of 'feeling a bit lost' on their part. Moreover, their more remote supervisors may not know much about their professional capability on day-to-day basis.

On yet another level, 'Feeling a bit lost' indicated limited interaction with other professions. Disciplinary hierarchies show limited interpenetration with each other. One reason given was the limited staff numbers on duty. For example, Midwives who take on junior doctors tasks in addition to their traditional practice usually have multiple roles in a shift. Other than meeting during active management of patients, senior midwives have limited contact with the medical team on duty.

'We haven't got the midwifery staff ...there's only two... The Band 7 coordinator and a Band 6 midwife. I do feel that we're expected to do more and more but I also feel that the paediatric SHO, gynae SHO is scrubbed in theatre so I'm also taking that role on as well, at night.'

(Senior Midwife 3)

Midwives absorb medical work in addition to managerial and midwifery duties but hardly plan work coordination together with the medical workforce. For the less experienced, the Obstetric-Paediatric interface means 'Being scared at Night' in many ways, for the more experienced, it means 'Feeling a bit lost' about how structures work and why they work as they do. Professionals from

other disciplines confirmed the limited communication between disciplines indicating limited opportunities for joint action particularly at times of increased work intensity.

Through 'Feeling a bit lost' professionals were able to articulate how the hierarchical structure that has lumped together clinical and managerial leadership roles contributes to strategy risk through discontinuities in joint action at various levels. 'Feeling a bit lost' feeds into 'Being scared in the night' as participants perceive that those too far removed from the 'ground' are undertaking management of operational risk. This may result in uncertainty about managerial direction arising from knowledge of clinical practice. The study next highlights the consequences of disconnections within the system through 'Losing things'.

7.2 Losing things

'Losing things' continues with the themes raised in 'Acquiring night vision' about professional commitment to professional development. 'Losing things' is a dimension of 'Working in the dark' showing how strategy choices concerning EWTD and patient safety may have created conditions in which participants perceive that painstakingly acquired experience and competences may be lost.

'Losing things' is about being aware of breaches in the frontline and describes possible strategic risks which may include loss of professional colleagues, loss of competences and a feeling of working in a system with limited investment.

This dimension of 'Losing things' describes how the interface loses tacitly held skills of working together through loss of colleagues. This seemed to capture the feeling of professional desolation as colleagues leave and take with them their internalised ways of working. An important reason for leaving the team is through promotion to process management positions.

The organisation responds to the resulting competence deficit by recruiting and training more professionals.

'You have to keep replacing because once you develop a midwife in that direction. Quite a lot of the midwives that we've trained and over time, we've probably trained about sixteen, eighteen, they go and get into other roles. They get promotion and do other things'.

(Senior Midwife 5)

Although the intended outcome of clinical training could be to enhance clinical competences, these are likely to be underused, as professionals instead are promoted to managers. This leads not only to professionals 'losing friends' but also their replacement may 'lose things' in the night because they are unfamiliar with the unsaid rules of working in the Obstetric-Paediatric interface.

Apart from losing professionals because of career advancement, it seems that professionals 'lose things' because of the intensity of work. According to one professional, for safety reasons, the organisation has restricted the work of operating theatre assistants, resulting in theatre operatives 'losing things' such as their competences and status. Yet the organisation expects the immediate supervisor to take on these tasks. This situation could make the immediate supervisor experience 'Losing things' in terms of now having to

take on the additional tasks themselves through time limitations and loss of a second 'pair of eyes'.

'Previously, they used 'go through that check list. Identify the patient, go through the check list and then keep all the drugs ready for us. Nowadays, they are not doing that, they don't do the drugs.

(Anaesthetist 1)

It appears that working with a less experienced colleague puts the more senior professional who may have an operational managerial role, a clinical practitioner role, and an extended clinical role, under pressure. The high acuity role of a senior professional in turn puts the junior professional under pressure, as every opportunity of working together with an experienced colleague is lost through being busy with tasks. It could be speculated that service demands have largely influenced the current educational arrangements.

The pressure to be productive in several areas within a shift can have deleterious effects on health. For example, since midwives essentially work single handed at each level (there is one band 5 or 6 and band 7 on duty), the intensity of work could lead to 'losing ones health'.

'Erm.....I had a period of sickness ...So I took sometime off work, went and had some counselling and then decided to come back in a different role and that's why I'm working now down on labour ward'.

(Senior Midwife 4)

Apart from ill health triggered by pressure of work, one professional reported how working under pressure resulted in loss of concentration and mistakes.

Another professional articulated how the intensity of work affected her day-to-day productivity and how she was unable to share her pressures with others for fear of losing credibility.

'Erm And erm there were perhaps days when I knew I hadn't erm but there're there're just you sort of put those down to the fact that erm I'm not having a very good day today erm I'm struggling with the concentration and stuff. And being a reasonably good actress, I thought I've managed to hide everything particularly well...'

(Senior Midwife 3)

For this person at least, It seemed much safer to be opaque than transparent about one's performance.

On another aspect of opacity is that a system is opaque because of interruptions in flow of performance information (Dreisner, 2010). 'Losing things' may also indicate the potential for loss of information when there are interruptions in the flow of patients' information and personal performance information to others.

A system that loses information becomes more opaque than transparent and may result in 'losing things' such as timely assessment, losing vital time before treatment is started, not carrying out procedures such as finding a bed and losing opportunities for sharing information and working together.

For instance, one professional observed that

'I don't get involved in the handovers...as I used to be involved initially... Well it has a massive impact...It can mean a patient being left on a trolley. It can mean them not getting the treatment that they actually need...It can cause friction... I think we should be working more, more together.'

(Senior nurse)

This suggests a will to improve the flow of information in the system but for one reason or another, the perception is that this does not happen effectively. Another senior midwife recalled how an incident happened which on looking back was due to losing information during handover

'it all came down to communication and what information was provided and what evidence was available in the notes you know. What things could we have done differently, you know, erm because ...I can't remember I can't remember...'

(Senior Midwife 4)

This observation seems to highlight potential latent risk areas for loss of information such as within case notes, during time out for handover and reliance on recalling from memory of important facts about patients and colleagues. It appears that the Obstetric-Paediatric interface relies heavily on professional memory and vigilance.

Twelve years ago, the Institute of Medicine identified reliance on professional memory and discontinuities in information flow as some of the problem areas of the current healthcare system (Corrigan et al, 2001). The Obstetric-Paediatric interface has yet to find ways mitigating circumstances under which a complex system breaches the safety provided by vigilant professionals.

The concerns of professionals seem to be borne out of experience. One reason, which may contribute to losing things at night, may be an underestimation of capacity requirements (Kaplan & Anderson, 2007).

'Generally, it's busier on the labour ward at night.... So midwives are suffering because I'm not being able to support them....It's weakening the team all the time...'

(Senior Midwife 2)

It appears the job plan bears little relationship with the capacity difficulties experienced by professionals. Furthermore, with under investment, it was perceived that personnel could be 'lost' due to certain middle grade doctors being overwhelmed by filling the gap left by the shortfall of junior doctors hours. Obstetrician 2 referring to tasks that cannot be taken up by midwives observed

'Well, obviously, we have, I prefer that we cover the hours. So, obviously, it's very difficult to get SHOs these days. There are no doctors on the market. The main drawback for me from this is that if the SHO will go off sick.'

(Obstetrician 2)

Another dilemma appeared to be underinvestment in technology.

Underinvestment in information technology may result in 'losing things'. For example, no reminder system supports caring for patients and it is not possible to refer to guidelines while performing tasks on a patient.

'We have very little, I mean, we have a maternity information system that doesn't record half the data we need to satisfy the commissioners. We don't have any kind of prompt system. We don't have any kind of diagnostic tool system.'

(Senior Midwife 5)

It has been suggested that a requirement for transforming healthcare is investment in technology that improves information flow (Bohmer, 2009: 118). More recently, a case was made for the use of technology to promote coordination and competitive collaboration in quality improvement in American Healthcare (Baicker & Levy, 2013). In their view, investment in an infrastructure and payment system would create win-win or win-draw situations between purchasers and providers.

Medical professionals reported being under similar pressure as midwives because of loss of investment in infrastructure necessary for updating their service. Professionals perceived that investment might be going elsewhere creating a win-lose situation between primary and secondary healthcare. For instance, according to one of them, use of certain incentives in primary care may have lost the Obstetric-Paediatric interface opportunities to contribute to aspects of community care

'I mean when they started to give them er money for achieving certain targets, the focus of the care became actually on achieving these targets and they overlooked other very important health issues to the community'.

(Obstetrician 1)

At deeper level, 'Losing things' expresses a general disinvestment in the Obstetric-Paediatric interface. Some professionals consider the interface is losing things of value through failure to articulate a long-term vision for itself. Organisations under pressure from a quick-fix culture may lose opportunities to invest and take a long-term view (Liker, 2004; Serembus et al, 2012).

In another dimension, 'Losing things' may also mean missing opportunities for development because of holding on to tacitly held values longer than is useful. For example, one participant reported that teams have lost members because of an inflexible team culture. It seems that new team members must internalise an unstated 'right culture' or risk losing their position.

'you've gotta they've gotta fit in and not everybody do.....because it's it's nationally known... people are odd. And that's what everybody says to work there, you've got to be odd. And if you fit in, if you're odd, you'll fit in. If you're not, you won't fit in'.

(Anaesthetist 2)

The pressure to 'fit in' applies even to clinicians appointed to managerial roles.

According to another participant, clinical managers lose sight of the concerns of other clinicians, as they conform to their new responsibilities.

'the problem with them is although they are clinicians yet when they start to manage they look as from the managerial head rather than a clinicians head. And erm they are given an agenda which they have to implement and they instead of actually getting people to work with them... They will get much more erm productivity if they actually engaged the clinicians'.

(Obstetrician 1)

This participant seems to suggest that a culture of separateness between clinicians and those clinicians with managerial roles exists. Clinical managers seem to have to work to a different agenda.

According to one professional the Obstetric-Paediatric, interface moves very close to the 'strategic cliff' as the organisation hurtles from one strategy to the next.

' Erm..If we're not careful, we're lemmings off the edge of the cliff, aren't we?'
we have to be very clear on our strategy. Because what stops us being strategic is that ...We just get it right for this thing we're measuring today. We dash towards those targets'

(Senior Midwife 5)

On another dimension, losing things describes loss of services to other service providers, which touches on participants' perceptions of a general uncertainty about the future configuration of services. One professional observed that in spite of successes on other performance criteria, a clinical service was one scaled down due to one aspect of measurement.

'to try and push that forward. I mean, ...that we used to have on this site here went to ... simply because of numbers if you didn't do fifteen thousand...a year, you weren't doing enough to see to maintain your skills even though our staff actually came pretty much top most of the time in all the er assessments'.

It seems that the rush towards meeting externally or internally set targets has led to a culture of using and interpreting measurements narrowly. A recent article advised that strategic thinkers have a tendency to examine an issue with different lenses (Shoemaker, Krupp & Howland, 2013). Other interviewees suggested that open discussion to consider possibilities were uncommon.

In losing things, professionals have highlighted that strategy choices involve potential losses or possible gains. Losses may result in losing hard to come by 'night vision'. Losing things describes professional perception of the strategic risks posed by taken for granted structures embedded within the Obstetric-Paediatric interface such as what to do about professionals who leave or how to incentivise certain jobs. Losing things describes professional perception of possibilities for a better service, which slip through well-established fault lines within the operating system indicating a misalignment between good intentions and outcomes (Becker, Huselid & Beatty, 2005). An important reason for losing things is under investment in the system.

7.3 Fearful professionals seeing risks

'Fearful professionals seeing risks' takes a more penetrating look at the 'glue' that binds the community of the interface. 'Fearful professionals seeing risks' interrogates the mindset and culture of the organisation. One view of the organisational psychological make up is that apart from expecting employees

to have capabilities such as behaving with courteousness to service users and competencies such as expert skills, employees hold tacit assumptions about how things come to be as they are.

Tacit assumptions have been called 'the organisational mindset and culture' (Becker, Huselid & Beatty, 2005: 9). The mindset and culture represent values, beliefs and attitudes. Values, beliefs and attitudes are critical in strategy formulation and execution (Norton, 2011). 'Fearful professionals seeing risks' relates professional narratives to the values, beliefs and attitudes of employees in relation to strategy. It maps how these assumptions, relate to values, and patterns of behaviour about learning in the Obstetric-Paediatric interface identified in 'Forming a night time community'.

'Fearful professionals' surface barriers to strategic risk management that lie embedded within the assumptions professionals make about accountability; to what, to whom. 'Fearful professionals seeing risks' shows mounting professional concern as some recurrent issues appear to be well understood and beyond further discussion in the organisation, a process Wenger (2008) has defined as reification.

'Fearful professionals seeing risks' surfaces these tensions under fear inducing environment, procedures that induce fear, people inducing fear in others, equipment that induce fear and external forces that induce fear.

One professional expressed the pervasive presence of personal risk when working alone which the system might not be aware of

'us during the day at the weekend, is effectively a lone-worker and that puts you at all sorts of risks of.....well for one risk, you could fall down the stairs and no-one would know until perhaps switchboard had been bleeping you for half an hour and thought well where's the ... Nobody's answering'.

(Senior Radiographer)

'Fear inducing situations' included being in situations with potential for causing medical error. One professional voiced the frustration of other professionals not sharing a 'mind-set' about prescription writing. The professional pointed out

'We've got a treatment sheet and because they can't administer anything without a doctor putting it on to the system...they do always say that there's so many constraints to that system but then the idea is to reduce the amount or errors, that would be my assumption.

(Senior Midwife 4)

In the Obstetric-Paediatric interface, it seems that two schools of thought have yet to be reconciled. Some professionals feel their practice is constrained by risk management and fear that it may delay care. Another group of professionals believes that countersigning a prescription contributes to safety or system reliability, which is the number of times when an action produces the desired result (Luria et al, 2005).

'Fearful professionals see risk' in this divergence of attitudes. Professionals may have come to expect clinical operations as ambiguous because occasionally, behaviour resulting from fear manifests as withdrawal from some clinical responsibilities. Professionals cite lack of experience or not having sufficient information for them to carry out clinical work as reason not

to perform certain tasks. One professional recalled a case of another professional who would not see children when on call

'He was booked for a night shift to cover obs & gynae. Obviously the registrar had been busier that night in paediatrics so he wanted some help and the cover from the obs & gyne SHO, he refused to do that'.

(Senior Midwife 1)

One possible interpretation is that some professionals are anxious about making mistakes and are reluctant to learn as they work.

Another 'Fear inducing' situation for professionals is taking on responsibility for procedures whose outcomes professionals may not be able to predict. In the culture of the Obstetric-Paediatric interface, professionals showed a reluctance to take the risk of learning on the job or make decisions in indeterminate circumstances. For instance, one 'Fearful professional seeing risks' saw risks inherent in the 'early discharge' policy.

'I think I suppose the difficulty is it's the not knowing isn't it because any baby that goes home you always think well, you know, at that point in time, you know that baby's well.....but you don't know what's gonna happen'.

(Senior Midwife 4)

Although checklists are used, no one can predict the unpredictable. Yet this professional was very concerned about an adverse outcome that happened at home after early discharge. The professional wondered

'Did we miss something, you know what I mean. But when ...you're not senior management are you're working on a level where you're working with the clients day-in and day-out, you feel, (I don't want this to sound bad), you do feel sometimes that it feels as though they are trying to apportion blame'.

(Senior Midwife 4)

This may suggest that some professionals assume that the culture of the Obstetric-Paediatric interface is likely to treat every mistake or failure as blameworthy. Edmondson (2011) suggested that it is in the interests of organisations that their employees develop a mindset, which views causes of failures as falling on a spectrum spanning from deviance to exploratory testing with working with uncertainty lying in the middle of this spectrum.

In this regard early discharge would fall within the confidence interval of uncertainty. It seems that professionals tacitly know that within their work environment, the culture expects frontline professionals to assume full responsibility for health outcomes, particularly bad ones. This may lead to fear of being judged as incompetent.

It seems that some professionals take pride in pointing out mistakes that others make rather than openly discuss their own mistakes. One professional pointed out that such behaviour may indicate a practiced behavioural trait

'That's that's probably their defence mechanism and it's them sort of being, you know, attack being the best form of defence'.

(Senior Midwife 3)

The study found that in other grey areas, where it was unclear who would take responsibility for an adverse outcome, professionals took the safest option open to them.

One professional recounted how when a patient has a suspected allergy, some professionals in the community will manage the patient as if the patient actually had allergy. In this regard over treatment and over investigation of suspected allergy may have become one of the unsaid tacitly held

assumptions about what good practice looks like amongst some groups of professionals.

However, it has been observed that the safe than sorry approach results in over reaction and sometimes over-use of interventions such as treatment (Grol, 2001). In neonatal units, 'this better safe than sorry' approach has resulted in high usage of antibiotics (Fairchild & Polin, 2010). When patients who have unconfirmed allergy are in hospital, confirmatory tests, which cannot conclusively say that the patient is not allergic, may even increase the cost of care. One professional pointed out

'Most of the time, obviously I came across a few patients where they are labelled with allergy which is not true'.

(Obstetrician 2)

The organisational mindset and culture has further consequences for clinicians. It seems that other 'professionals can induce fear in others'. There seems a discrepancy between the thoroughness of operational investigations and the experience of being on the receiving end of such investigations. It appears that while professionals support safe practice, their assumptions about the mindset of investigators towards system failures makes most of the professionals risk averse. One professional recalled how internal investigations could be thorough and unintentionally leave deep wounds.

'It's all about finding out what happened. It's all about picking picking it to pieces, root cause analysis, picking it to pieces and saying right let get to what actually happened. Let's go through it bit-by-bit. Let's piece it together. What could we have done differently, you know...It's almost like it's a razor blade or something just cutting through you...'

(Senior Midwife 4)

An imperative of contemporary practice is that after a serious operational incident, training is an important part of compliance risk management and restoration of confidence in the system (Kaplan & Mikes, 2011). Unfortunately, the hospital's programme of retraining is not always welcome. For instance, following an unpredictable incident, one professional was encouraged to go on an updating course. Her response was

'To be told someone actually needs re-training, I actually found quite an insult. Then after you're told that you are not achieving... 'Erm I don't honestly remember. Erm It I think I forget I forget the exact words but I'd made up my mind at that point. That erm it would be their loss if I left altogether. May be and erm and I think I'd I'd I'd already made up my mind that I'd take that I'd take a step down...'

(Senior Midwife 3)

The professional felt that seniors were deflecting accountability to the frontline and rejected the recommended re-training.

Studies have established that it is useful to establish a place for discussing error without blame or an 'Open school' where professionals could enrol according to felt need (Corrigan et al et al, 2000; Griswold et al, 2012; Montgomery, 2012; Neusepiel, 2009; <http://www.ihi.org>).

'Fearful professionals seeing risks' also included perception of competition. One professional reported how some colleagues credit themselves with other professional's ideas.

'the person that I'd told this to, which was for the better, had taken the credit for it. You don't take it from somebody else, implement it and

stand there in front of a camera and with a caption saying I've done well. That's not on...'

(Anaesthetist 2)

Comparing across interviews, other professionals seemed to acknowledge the competitive atmosphere and the risk of appearing incompetent in the eyes of colleagues. Professionals can feel vulnerable and hurt when people who are not frontline comment on their work.

'I don't necessarily take kindly to other people who can't do it, criticising my effort at the time. Yes, yes.'

(Senior Midwife 3)

Another dimension of 'Fearful professionals seeing risks' included the insecurity of not having the right equipment. Professionals acknowledged limitations of monitoring equipment

'Apart from a calculator, now we don't have anything more than a calculator. No, nothing, no because we're still on the old system. I'm not quite sure why maternity hasn't erm got there yet..'

(Senior Midwife 4)

It seems that technology is quite limited and delivery of an ill looking shocked child can quite unnerving.

One fearful professional seeing risk related what it felt like to experience this while working with a doctor who was inexperienced

'A paediatric SHO and as I was helping him resuscitate the baby. We just weren't working.'

(Senior Midwife 2)

It seems that there is limited learning time during an emergency. Comparing across interviews, there were no reports of the team ever training together or whether for training purposes, there is culture of keeping difficult situations for learning.

It seems that the interface has professional perceptions for improving the service, yet there are seems to be barriers to making improvements in the Obstetric-Paediatric interface. One professional mentioned how external pressure for implementation initiatives makes it more difficult for the community to respond with agility.

'We're still counting things to respond to the commissioners' quality agenda. The danger is, sometimes that agenda can be so big. That it takes the majority of efforts to deliver against it...So as you say, we are erm, you know, we're not steering the car, we're in the passenger seat aren't we?

(Senior Midwife 5)

It appears that the organisation can hardly finish a project before moving on to another government initiative. Attention shifts according to new problems.

While the organisation cannot operate without external influence, responding to an external agenda makes it impossible to do everything to completion. It seems that the external motivation for initiatives overwhelms internal determination to improve things by forming a community of practice.

Fearful professionals seeing risk shows how an organisation that hardly has time to consolidate on initiatives can shape the organisation's hypersensitive culture of blame. 'Fearful professionals seeing risk', shows how the culture creates a mindset of perceiving inquiry and learning as personally risky.

Experienced professionals identified organisational assumptions about professional responsibility as contributory to 'Fearful professionals seeing risks'. It also indicates that probably 'Forming a night time community' requires that 'Fearful professionals seeing risks' act together before they can have a 'Night time community'.

7.4 Conclusion

Illuminating on working in the dark reveals the hidden positions professionals have taken on managing strategic risks, which leaves them feeling a bit lost. In the Hospital@Night professionals also experience losing things such as colleagues, and competences. 'Fearing professionals seeing risks' brings into focus the relationships and assumptions that exist in these relationships.

'Feeling a bit lost' shows areas where inter-professional networks could be re-oriented for the system to better support both compliance and strategic risk management. For professionals, system wide discontinuities mean that different parts of the system are unable to support each other sometimes. In most instances, professionals successfully avoid feeling a bit lost or manage emergent uncertainty in care processes through ensuring compliance to operational procedures and guidelines.

Apart from following guidelines, to avoid feeling a bit lost, professionals seem to have developed override mechanisms. With these, they can circumvent procedures and guidelines, which further compromises the alignment of services and increases feeling a bit lost presumably as professionals act

autonomously. At times, this approach leads to professionals questioning organisational assumptions about the relationship between operational management and actual clinical practice. For instance, mentoring was perceived to be more about streamlining managerial accountability than to help professionals become reflective about their role in the organisation.

Operational management seems not to have aligned with human resource development and decrease feeling a bit lost' because most clinical professionals never progress beyond Band 6. The study suggests that while operational management may require a different set of skills such as better use of personal attributes to motivate others, it is possible that all team members can develop such attributes. It may be that because the system is too close to operations, that it does not have distance to develop a developmental approach to service improvement.

In the Obstetric-Paediatric interface, frontline professionals appear to live too closely to the present. They do employ methods that may enable them to look at what has happened in the past and have sufficient time to scenario plan for what could happen in the future, all, which may contribute to feeling a bit lost. Professionals also experience loss.

Losing things involves loss of things professionals have grown to identify with. This may involve losing painstakingly acquired experience and competences. Although, it was not clear from the data, losing things also suggests that professionals are 'seeing things go elsewhere'. In this regard, losing things

may mean letting go of tacitly held representations of the world or acknowledging a changing interface.

Change in this respect consists of losing what is familiar and replacing it with the new. Professionals expressed their vulnerability when faced with unceasing change. Newer professionals for example have to be able to acquire situated competences that take time to instil, making it more difficult for professionals to tacitly deploy and coordinate action.

Change as expressed by losing things may also indicate the emergence even greater risk as the system is unable to process all information it generates quickly enough. Losing things in this regard may mean losing data, which could help professionals interpret patients' conditions. In losing things, professionals have been able to predict future information needs as the age of big data dawns on the Obstetric-Paediatric interface. For instance, technology that can capture information on patients remotely is available.

With limited data to interpret, professionals were able to show that investment in the service decreases as work done probably goes unrewarded. They also highlighted the possibility that the service was losing things as investment drifts to those parts of healthcare that is able to command the attention of policy makers. Limited investment in the service means limitations in learning opportunities, which may generate fearful professionals seeing risks using locally generated rules of thumb or heuristics.

In the Obstetric-Paediatric interface, it appears that the dominant mindset and culture of professionals is risk averse. Professionals are not risk takers. This is not unusual in a high acuity area. However, the better safe and sorry approach can result in variability of decision-making especially when there is no established framework calculating risk.

The study perhaps suggests that in some areas professionals over use resources such treatment and investigations of allergy and infections. They may also underuse resources such as the knowledge of colleagues for instance because it seems that that in the Obstetric-Paediatric interface, professional tacitly know that it is wrong to appear ignorant. The culture supports underuse and creation of a shared knowledge resource to support ongoing learning. They may also misuse resources such as the continuing belief that most failures are due to deviance. Such a culture attributes bad practice to others.

With the fundamental attribution of blame in error, scarce educational resources may go to those who cannot or do not wish to use them limiting return on investment in education. Fearful professionals seeing risks show that in their emergent community, decision-making is one area that needs their most urgent attention. Inter-professional learning directed towards professional needs with immediacy of application could form the core of the curriculum development at this stage.

To increase the quality of reflection, professionals could be encouraged to generate and interpret data from their practice through capturing data, exploratory investigations and professional feedback on each others performance.

Chapter 8

Discussion: Illuminating on working in the dark

8 Introduction

The discussion examines inter-professional learning from the perspective of professionals working in the Obstetric-Paediatric interface. The focus is on how professionals manage strategic risks that have surfaced since the Obstetric-Paediatric interface adopted a shared junior rota between Obstetrics and Paediatrics and extended midwifery roles to meet the requirements of the European Work Time (EWTD) and rising Caesarean section rates.

The initial focus of this research was on doctors. The study aimed at finding out how inter-professional learning could support service delivery and postgraduate education of doctors in training and those in practice. When the initial proposal was made, the aim was to interview junior doctors about their experiences since the introduction of EWTD. However, ethical problems concerning consent arose and it was conceded that the research would instead address those who were supporting junior doctors, the senior doctors, midwives and other senior professionals for their experiences of the 'Hospital@Night'.

As the study progressed, the focus changed from learning about working together in busy unit to how professionals manage to keep the Obstetric-Paediatric interface safe in spite of the reduced junior doctor capacity and

capability. To represent the interface in its naturalistic way, purposive sampling extended to all senior professionals who contribute to healthcare delivery and in that way the safety of the interface. As categories emerged, it became clear that professionals not only managed compliance risk through following guidelines but that they also managed the strategic risks associated with EWTD. A substantial section of the discussion is devoted to professional management of strategic risks suggesting a new area of inter-professional learning.

The discussion uses professional insights from the core category, 'working in the dark'; the three major categories, 'being scared in the dark'; 'acquiring night vision' and 'forming nighttime community', to sketch a framework for inter-professional learning in a time constrained 'hospital at night' (Hospital@Night) system.

In responding to the EWTD with extended roles to support junior doctors reduced capacity, the Obstetric-Paediatric interface increased the probability that new risks would materialise. Without intentionally calculating risks, senior professionals have taken appropriate steps to reduce the likelihood of assumed risks materialising.

The situational arena of the Obstetric-Paediatric interface also brings in other professions including Radiographers, Accident and emergency nursing staff, Laboratory scientists and Anaesthetists who all participated in the research. Two perspectives on decision-making are taken, the professional '*capability*

and capacity to do so on one hand and the strategic use to which decisions are put on the other' (Evans, 2009: 36). The discussion address three issues

Issue 1. Enabling a more self-directed workforce through acquiring night vision following EWTD.

Issue 2. The disorientating effect to newcomers of Obstetric-Paediatric interface as an established unique dynamic complex system.

Issue 3. Collaboration is needed for working in a constantly changing environment. Inter-professional learning can support the emanation of collaborative practice

8.1 Enabling a more self-directed workforce through acquiring night vision

The core category of 'working in the dark' and 'being scared in the night' illuminates, the complex professional world underlying the seemingly sequential, stable Hospital@Night and makes a case for a formal system of inter-professional learning. 'Acquiring night vision' and 'forming a nighttime community' promote the development of an autonomous interdependent workforce (Loevinger, 1987).

In most instances, according to professionals, armed only with their experience or acquired night vision, they could tell when things will go wrong and take anticipatory action. Acquired night vision is 'on the feet logic' or use

of heuristics to support a complex system (Kahneman, 2011; Stonovitch, 2012). For example, professionals were able to make an association between the smell of alcohol on a patient's or relative's breath and difficult communications, became for alert to ensuring that miscommunication did not ruin the experience and outcomes.

Enabling a more self-directed workforce through acquiring night vision covers: fearful professionals seeing risks, sensing risk, seeing bogeymen, feeling insecurity, sensing chaos, feeling unrewarded, being a midwife and being with mothers.

8.1.1 Fearful professionals seeing risks

'Fearful professionals seeing risks', represents how professionals feel about the distribution of accountability in the Obstetric-Paediatic interface. 'Fearful professionals seeing risks' describes the anxiety of being at the centre of an adverse patient outcome. It seems that the quest for favourable outcomes for both their patients and their professionalism drives professionals to develop their predictive capability.

There was a suggestion that the imbalance between participation and reification creates a sense of anxiety about will come next in the Obstetric-Paediatic interface. According to Wenger (2008), reification refers 'to treating (an abstraction) as substantially existing or as a concrete material object, e.g. the blind folded maid who represents 'justice' (Wenger, 2008). Apart from extended roles, reifications in the Obstetric-Paediatic interface are the EWTD, reduced junior doctors numbers, rising Caesarean section rates,

guidelines, productivity etc. In their practice, professionals see these as 'real objects' which describe their professional relationship with the world, they demand professional attention and action.

Theirs was a duty to see and act or participate in change. Yet participation refers *'to the social experience of living in the world in terms of membership in social communities and active involvement in social enterprises... it is a complex process that combines doing, talking, feeling and belonging'* (Wenger, 2008:55-6). It appears that this contentious indeterminacy drives professionals to seeking ways of making predictive decisions.

In their transformed environment, reifications demand a certain type of participation. In other words, patient outcomes, safety when achieving outcomes and providing high quality care with the least resources currently have become important definers of professional identities (Stern, 2006; Cruess, Cruess & Steinert, 2009; Kumar & Halamek, 2012; Feld & Jani, 2009; Matlow & Laxer, 2006; Ellesbury & Ursprung, 2012). When that level of participation appears intangible, fearful professionals will see risks.

This may suggest that the hospital system may have had a priming effect with examples of similar incidences on professional judgement (Kahneman, 2011). In contrast, systems that are designed with a view that they may fail, look out for failure and have a formalised way of talking about possible, probable and actual failures (McGrath, 2011), with the aim of transforming their services.

The current system appears reliant on the intuitions and vigilance of professionals and professionals did not seem to have a supportive system of

participation in learning from failures, near misses and successes. Without a purposive infrastructure, the organisation cannot transformatively learn from its successes and failures (Edmondson, 2011; Gino & Pisano, 2011; Tinsley, Dillon & Madsen, 2011).

8.1.2 Sensing risk

Professionals are insightful about the Hospital@Night system and are committed to detecting problems that might derail the strategy. In the absence of an organisational structure for learning about other ways of managing strategy risks, professionals and organisation seem to have an unwritten goal, achieving excellent patient outcomes. Goals written or tacit are important in setting up anchors of purpose against which professionals measure themselves, or identity construction (Tajfel & Turner, 1979; Miles, 2012). One of the anchors is management of compliance risks.

Compliance risks are avoidable risks precipitated by professional misbehaviour such as not following guidelines (Kaplan & Mikes, 2011). Compliance risks are best managed with an appropriate skill set and the organisation has focused their education programme on the acquisition of these skills. Equally, the study found that professionals were aware of how the organisation made use of unfavourable outcomes for decision-making even though such outcomes were not representative of their actual practice (Thaler & Sunstein, 2008; Kahneman, 2011). Professionals talked of organisation using incidences as exemplar of why professionals ought to maintain a high

standard of competences. This was at variance with professional attitude towards system failures.

Professionals mentioned that one indicator of successful strategy risk management, was an attitude of ensuring the family left the hospital satisfied with the care outcomes. Although organisational emphasis on competences and professional attitudes were aiming for the same goal, yet the two ideas do not seem to reinforce each other in professional discourse. Competences are in the domain of managers and an attitude towards good outcomes is in the domain of professionals.

Through lack of opportunities for distinguishing between tools for ensuring compliance (critical incidents, medical errors) and predicting strategy risk (clinical quality indicators (CQUINS) (DOH, 2009) and risk heat maps (Kaplan & Mikes, 2011), the Obstetric-Paediatric interface professionals appear to resort to compliance tools to manage strategic risks. This may lead to making decisions in a cognitive miserly way.

According to Stanovitch (2011), a cognitive miser is a normal human being who chooses to do what they think is right without considering the alternatives. Useful alternatives have indicators. Indicators in any system are persistent and predictive (Moubassin, 2012). To find alternatives within the system, develop them and operationalise them, such indicators of best practice need a more exploratory and analytical approach than professional intuition. It appears that those who have been in the interface long enough

have experientially acquired night vision to avert risk. Risk aversion may present as intuitively seeing others as likely to derail collaborative action or seeing bogeymen, feelings of insecurity and sensing situational vulnerabilities or sensing risk.

8.1.3 Seeing bogeymen

Seeing bogeymen describes instances when some professionals have displayed behaviour, which could be associated with actions that 'block progressive action'. According to some influential theorists, a mental model such as seeing bogeymen, *'is a vivid and simplified cognitive representation that people use to make sense of and interact with the world'* (Miles, 2012:169; Senge, 1990).

From social psychology, seeing bogeymen describes stereotyping behaviour or generalised beliefs about the characteristics, attributes and behaviours of certain groups (Hilton & Von Hippel, 1996). Groups have a tendency to revert to in-group bias and stereotyping or seeing bogeymen (Arnold *et al.*, 2010). In the Obstetric-Paediatric interface, 'seeing bogeymen' as a mental model may induce collaborative or competitive behaviours given certain situations. Professionals spoke of colleagues who put personal interests before those of the collective, who were consequently likely to thwart others through exclusion. The seeing bogeymen heuristic or 'myside bias' describes a situation in which professionals 'evaluate evidence, generate evidence and test hypothesis in manner biased towards their own opinions' (Stanovitch, 2011:135-6)

According to these professionals, when exclusion is unsuccessful, the ideas that those who are seen as 'bogeymen' put forward for instance in a meeting, no matter how well crafted never reach a stage at which they may be developed. If the idea is very good then an insider colleague may take credit for it. For instance, one professional narrated how a more senior colleague took credit for the professional's ideas and went on to get organisational recognition.

One view is that an organisation will have a single mental model and will disbelieve contradictory evidence (Doyle & Ford, 1998; Bara, Bucciarelli, & Lombardo, 2001). Some of the differences modulated by 'seeing bogeymen' have the makings of turf battles in the Obstetric-Paediatric interface. Although the study found caring senior professionals, at times non-medical participants indicated that others frustrated their enthusiasm for inter-professional learning let alone working across professional boundaries, such as extended roles. The fact that other disciplines were ambivalent has some significance.

According to Lewin's field theory, the position of peers in the field almost appears to direct an organisation to a goal (Lewin, 1951; Martin 2003). Peer pressure can drive change (Kotter, 1997). Or indeed thwart it (Kotter & Whitehead, 2010; 2012). If for instance there were a significant number of influential people against extended roles, the organisation would withdraw from extending roles.

In the Obstetric-Paediatric interface, when professionals exclude professionals who espouse a different worldview, professionals may do so

unconscious of their motives which for things to stay as they are or the status quo heuristic (Kahneman, 2011). The status quo heuristic is a cognitive misery way of seeing the field of reality as fixed, stable, unchanging and beyond negotiation. 'Seeing bogeymen' can lead to some professionals feeling insecure in the workplace.

8.1.4. Feeling insecure

The following discussion relates self-awareness to the subcategory of 'feeling insecure' because one professional recalled how being involved in one of the clinical investigations following an incident was '*as incisive as a razor*' cutting through flesh. Feeling insecure describes what it is like to be involved in an adverse incidence and the organisational approach to investigating clinical incidents. Investigators get to the root cause through using incisive questioning techniques (Shoemaker, Krupp & Howland, 2013). According to research participants, incident investigations are thorough but they also show another example of decision-making, attribution error.

Professionals reported that the organisation uses tools such as straightforward evidence gathering and the root-cause analysis methodology (Ursprung & Gray, 2010). The root cause analysis is an explanatory incident investigation tool. It involves using an incisive questioning style in which the investigator asks five whys (Wu, Lipshutz & Provost, 2008). For instance why did the incidence happed...because...why? Etc.

Closed and explanatory questions and algorithmic decision-making frame the incident through an explanatory compliance framework. A strategic framework approach would be more exploratory with a view to future use of insights by those involved in the incidence. Used appropriately, root cause analysis has improved both care and learning processes (Stepleton, et al 2009). The analysis identifies vulnerabilities within the system and aims to prevent future adverse events (Ursprung & Gray, 2010). The investigation will make supportive learning recommendations to the organisation such as a course for those involved.

Such an approach works well in a command and control culture, in which people at the top have clear authority to command compliance. This approach might not work well in a complex system in which the professionals involved in that incident believe that there is more than one cause to any incident. In addition, in complex systems it is more difficult to be absolutely certain that the root cause has been fully identified (Ibarra & Hansen, 2011).

Incisive questioning may signal to the investigated an uncaring all knowing attitude. Edmondson (2011), says that we may fail to learn from failure when we use evidence that supports what we know to be true about the world or when we are keen to blame others more than we blame ourselves. Edmondson calls this behaviour fundamental attribution error. Incisive questioning may signify that the investigator is projecting his or her practice as better than that of the professionals who were involved in the incident.

To modify questioning during investigations, professionals could borrow from deeper yet more empathic questioning which define coaching relationships (Brockbank & McGill, 2013, Hawkins & Smith, 2013; Palmer & Whybrow, 2008) or in-depth interviewing techniques that underpin qualitative research. The aim of both approaches is to help the participant construct their own meanings and understandings to inform future action.

Coaching comes from sports culture. At a certain level, in sport although competence is of paramount importance, there is an overriding strategy of cultivating capacities and capabilities. The coach encourages the athlete to find the personal best from within her/him self. Probably, given limitations in their capacities and capabilities because of organisational emphasis on competences, through using heuristics, professionals have adapted to the system by sensing chaos and doing something about it when they can.

8.1.5. Sensing chaos

Sensing chaos refers to social learning from both positive and negative experiences. Professionals are fine-tuned to anticipate chaos when patient flow changes, when other professionals are tired and when new people arrive (Rosenbluth & Landrigan, 2012). Sensing chaos indicates the ability to stay perched atop instability and stability. Professionals gave examples of how they thrive in this indeterminacy through another heuristic, anchoring. Anchoring is associative and occurs when people consider a particular value for an unknown quantity before estimating that quantity (Kahneman, 2011; Thaler & Sunstein, 2008).

Anchoring is an evolutionary facility common to the human brain. According to evolutionary psychology, social adaptation consists of *'collective representations, emotions and tendencies generated by conditions in which the social group finds itself'* (Barkow, Cosmides & Tooby, 1992: 24). For instance, Istanbul punters predict results on football pools with 60% accuracy based on how recognisable the name of the city the football club belongs to is (Kahneman, 2011).

Like punters in Istanbul, experienced professionals calibrate their sensing chaos against each other's to create a stabilising effect on an inherently unstable system. However, social learning comes up against other social anchors such as the expectation that learning is unidirectional, from doctor to nurse. A senior nurse reported that some doctors found it difficult to learn from nurses. Such doctors may have a hierarchical view of learning and may not expect to learn from nurses or indeed, from anyone they are socially anchored to regard as below them. Recognising the socially determined ways in which knowledge is treated, some organisations now are looking for ways of equalising the workforce and increase engagement through diversity and gender issues (Chueng-Judge & Holbache, 2011).

According to Stanovitch (2011), to operate successfully, certain psychological states are required for team working such as *'fairness, rule following despite context etc...because they override the tendency to think in terms of self'* (Stanovitch, 2011:103). According to this view, when professionals do not have this mind ware, *'they will ignore advice and will resort to stereotyping'*

(Stanovitch, 2011:98), than co-construct reality. Senior professionals mentioned the application of sanctions against doctors who miscommunicate with nurses.

Sanctions are a Skinnerian approach to improve behaviour through punishment. They are effective in ensuring compliance. However, sanctions can serve to maintain the status quo heuristic and may be another way of replacing one tyrant by another tyrant by *'limiting exploration of underpinning beliefs and values that drive an individual's behaviour...'* (Passmore, 2008: 81).

One view is that roles are reinforced through social sanctions (Miles, 2012; Parsons, 1951). Another view is that while punishing doctors who are not keen to learn from nurses is an associative way of sensing looming chaos, (poor communication precedes incidents); it may enshrine irrational fear. Irrational fear could be counter-productive by entrenching discipline-bounded practice and algorithmic thinking that precludes deep learning through reflection (Stanovitch, 2011) and taking action with others. Professionals need assistance to develop the capacity to tolerate ambiguity not an organisational police officer to body guard them against other professionals. In our daily lives, we do not call on the police to live in mutuality with our neighbours.

Indeed the study showed that professionals had unarticulated capabilities and capacities to thrive in the Obstetric-Paediatric interface. For instance, under circumstances where professionals failed to detect emerging chaos, some

professionals demonstrated resilience or the ability to learn and prepare for the future. Others blamed themselves long after the event (Seligman, 2011). It seems that the absence of a catalyst to trigger personal transformation after adversity may leave professionals feeling undervalued and unrewarded for their efforts in keeping and achieving good outcomes for patients.

8.1.6 Feeling unrewarded

Feeling unrewarded, defines professional perception that the organization may not have honoured the psychological contract with some of the employees. The study found that with reference to Agenda for Change (AfC) (DoH, 2004), there was a mismatch between managerial and professional perceptions of fairness (Adams, 1963; 1965; Thiabaut & Walker, 1975). From the reports by participants, the implementation of AfC was not straightforward, if anything it left deep-seated resentment. Focusing on reward, AfC inadvertently created winners and losers amongst people who were supposed to work collaboratively.

AfC was a government initiative to align pay to skills and competences to focus and improve performance. According to Dewhurst, Hancock & Ellsworth (2013:60), the aim is *'to conduct an inventory of skills and create a detailed estimate of the kinds of skills your firm will need to execute its strategy over the next few years'*. Although the Obstetric-Paediatric interface, appears on the surface to be a system in which justice is distributed fairly, a consequence that could not have been anticipated is that AfC has brought to the fore the exercise of power within the organisation.

According to Adams (1963) the greater the inequity a person feels, the greater the distress and the more effort the person will expend to restore the equilibrium (Arnold *et al.* 2010). One power theory addresses the reward, coercive, legitimate, expert and personal referent powers (French & Raven, 1959; Landy & Conte, 2007). One interpretation would categorise AfC as connoting negative use of power.

According to French & Raven, negative power involves pursuit of personal interest, a need to dominate others and a tendency to use power play in win or lose terms. Some professionals felt their colleagues had used their power to categorise professional competences into bands for '*self-interest providing evidence of unsocialised need to dominate others*' (Cheung-Judge & Holbeche, 2011:164).

A positive exercise of power would enable professionals to design their own performance framework. According to professionals, in the current economic climate, prospects for higher training were limited limiting any chance of career progression. Dweck (2006, 2012) has advised that it is critical to keep in mind the difference between learning and performance. Professionals who have a learning goal perspective, will desire to increase their competences while those with a performance goal orientation, will lean towards demonstrating competency (Farr, et al 1993; Arnold & Randal *et al.*, 2010; Ibarra & Hansen, 2011).

A performance culture may value competence over capability and capacity. May be the organisation paid attention to professional competences than their

capabilities and capacities. In spite of AfC, interviewed professionals expressed a mutual loyalty to the organisational quality agenda. According to Robinson, Kraatz & Rousseau, (1994), employee loyalty to the organisation goes deeper than reward but it is not advisable to devalue employee loyalty (Miles, 2012).

Recent studies indicate that employees have anchored the appropriate projection of warmth and strength from their leaders. According to this view, employees have a way of punishing leaders who coldly project strength (Cuddy, Kohut & Neffinger, 2013). This may lead to a stuck state within the interface as professionals fight off the cold projection of strength by those who manage them. Apart from competences, it appears as that experienced professionals in the interface have capabilities and capacities of which senior midwives are exemplar.

8.1.7 Being a midwife

Senior midwives were once young persons who wanted to be a nurse/ midwife just like that 'person they knew'. Being a midwife traces the personal journey from novice to practical wisdom (Dreyfus, Dreyfus, & Athanasiou 1986; Benner, 2001). 'Being a midwife' shows self-direction in action (Kedia & Cloninger, 2013). Coming to the profession, they knew something about the profession and they learnt the rules (Sun, Lane & Mathews, 2013).

A senior nurse confirmed that she underwent similar training from being on the cadet programme and becoming an enrolled nurse. Similarly, other

professionals confirmed that they had experienced a similar training programme. Professional training seemed to support more implicit learning through total immersion in experience (Evan & Frankish, 2013) than explicit learning that characterises medical education.

Others could describe this approach to learning as behaviourist (Hawkins & Smith, 2013). Some professionals indicated that education of senior non-medical professionals has changed now because the organisation has developed links with the local Universities. One of the participants said that the organisational programme now emphasised the preparation of professionals to take on a broader responsibility.

To prepare them for role extension, midwives and nurses are exposed to challenges of working with patients. Apart from teaching them the core caring values such as the essence of care, they practice traditionally medical skills such as cannulation (Gordon *et al.*, 2004; Marshall & Gordon, 2010). This supports the notion of a simultaneous role salience in practice and acknowledges the socially constructed nature of roles and hence flexibility and permeability of roles depending on context (Miles, 2012).

Moreover, it seems as if there is global trend towards this type of education because the local programme appears to be in keeping with current trends elsewhere (Valiga, 2012). When it came to extended roles, midwives resorted to algorithms through use of guidelines. For instance, Midwives confirmed, that they could give antibiotics if the mother was at risk and the doctor was busy elsewhere. This may indicate a system that did not encourage non-

medical professionals to practice their professions to the best of their ability (Gorman & Briere, 2011).

And probably, professionals work in a system that has hitherto seen professional roles as objective and impervious to social interaction. Although it appears on surface as if professional education and practice in the Obstetric-Paediatric interface have emerged through trial and error with professionals picking what works (McGrath, 2011); it is plausible that at its design, current professional practice has been underpinned by a behaviourist theory of learning. Extending roles posits a constructivist orientation. The theoretical assumptions go deeper.

Speculatively, if knowledge is objective and behaviourist (some thing that can acquired through getting facts) rather than inter-subjectively constructed through interaction with others, then it is understandable why midwives and other professionals may not get the time within the shift to reflect on their 'being a midwife' with others. It may explain why midwives may not be entrusted with cannulation and antibiotics.

8.1.8 Being with mothers

In practice, professionals have developed and taken on the responsibility of 'being with mothers' by co-creating care with mothers, a far cry from the behaviourist midwifery stereotype who makes mothers do things in labour. The socially anchored midwifery stereotype may have led some critics of the behaviourist orientation in healthcare policy to criticise the practice of trying to

regulate pregnancy and women who are pregnant (Mander & Murphy-Lawless, 2013:19).

'Being with mothers' reflects focusing on the process and outcomes of care by being near the mother, making regular assessments in which the mother is the chief observer, using limited technology reflectively and communicating results of their observations to mothers and others (Valiga, 2012). Co-creating care solutions in this way is a constructivist approach to knowledge and has been used in other areas of healthcare including mental health. For instance, in mental health, co-creation applies to helping complex patients including patients with personality disorders initiate personal change and adhere to that change (Gunderson, 2011).

Being with mothers involves being in a learning relationship. Professionals pointed out that their duty was to enable mothers to learn through conversations and action. Carl Rogers associated this disposition to co-create reality with learners as enabling deep learning (Rogers, 1983). Recently this approach to learning has been operationalised into Gestalt coaching, or a process of becoming fully aware and turning that awareness into action (Allan & Whybrow, 2008).

A recent report indicates that experts can gain influence by developing competences in four areas: finding new opportunities to use expertise, deploying tools that embody expertise, ability to improve care through interaction and helping mothers as decision makers make complex decisions

(Mikes, Hall & Millo, 2013). Recent publications suggest that these are core values of midwifery professionals (Dole & Nypaver, 2012). Such core values simply need further development in other professionals so that they may become persistent indicators of organisational values.

The narrative culture of exchanging information with service users could find a place in day-to-day processes (Ives Erickson & Ditomassi, 2011). Such a narrative culture may enhance service user experience and some might fear the increased risk of litigation. Probably, the compliance culture and behaviourist approach to learning may arise from anxieties about litigation.

In one US healthcare system, a collaborative to promote values such as co-creation, narrative and collaboration is now operational under the rubric 'Centering pregnancy project'. This is a group model developed to incorporate assessment, education, social support and self-empowerment. Some have called this type of care, autonomy based care in which the patient holds the balance between harms and benefits (Chervenak & Mc McCullough, 2011).

In 'centering pregnancy', the aim of education is to enable the mother manage her pregnancy. According to them, if mothers are concerned, then the baby has more detailed bio physiological studies (Oyelese & Vintzileos, 2011). Two classic papers found that abnormalities in non-stress tests and amniotic fluid were detectable only when pregnancies went past 42 weeks (Vintzileos *et al.*, 1987) and Basket (1988). Interviewed midwives who use a similar approach said that they do not interfere until the pregnancy reaches 42 weeks.

Based on such principles, there is data suggesting that mothers are less likely to have Caesarean Delivery if they are cared for on Midwifery led unit (King, 2011). Some interviewed midwives felt that they were succeeding in reducing the rate of Caesarean Delivery. Paradoxically, the finding of higher Caesarean rates may indicate Obstetrician quick and frugal decision-making. A randomised trial has not shown any differences in outcomes between planned caesarean section and vaginal delivery in twin pregnancies (Barret et al 2013). Writing an editorial commentary, Greene (2013) points out the educational challenges, which lie ahead for those wishing to decrease the incidence of Caesarean Delivery in twin pregnancies.

According to Greene, at the heart of rising Caesarean Delivery are decreasing skills in the use of monitoring and judicious use of technology to assist vaginal delivery. To keep their skills, professionals may have to engage in simulations of the actual during normal shift. It seems that there is a trans-professional corpus of knowledge, which every department will need to deploy to meet patient needs within a thriving organisation.

A recent paper reflecting on the required competences for senior Paediatricians identified attributes which included gaining competences in the delivery of patient centred care, being collaborative teacher-learner, supporting a researching culture, understanding financials, having an overview of operations, developing self and others as human resources, creating value through markets and acting as departmental ambassador

(Sheehan, Davis & Borowitz, 2013). Failures in communication point to capability and capacity limitations in these areas (Iams et al, 2011)

Working within an organisational behaviourist paradigm, although professionals are subject to appraisal, midwives have no explicit system of documenting their experiences or evaluating their experiences. Without an evaluating framework, it is difficult to have a fair clinical advancement model (Ives Erickson & Ditomassi, 2011). There are programmes designed to help professionals develop expertise and practical wisdom, such as 'deep smarts' used to develop leaders in the business world which the system could adapt and use (Leonard, Barton & Barton, 2013). Porter & Lee (2013: 52) believe that '*ultimately (outcome) value is determined by how medicine is practised*'.

8.2 Disorientating effect of the established system to newcomers

Illuminating on the core category 'working in the dark' has a metaphoric ring to it indicating an ambiguous truce between certainty and uncertainty, knowing and not knowing. Professionals old and new respond to complexity with appropriate tools and skills to '*make decisions at the right time, in the right way and in the right place or capability*' (Hawkins & Smith, 2013:151). Acquiring night vision is similar to the gentle intimacy that exists simultaneously between illumination and darkness at a certain point as one flies across the date line. One becomes aware of the transiency of either state.

Illumination and darkness need each other; they produce each other. However, since there are no immediately available answers to novel strategy risks professionals may face, their work in turn can leave them 'feeling a bit lost', 'losing things' and as 'fearful professionals seeing risks'. To keep the service running; they learn and act through use of associative thinking, heuristics, mental models, algorithms and reflection (Stanovich, 2011; Nelson *et al.*, 2011; Miles, 2012).

8.2.1 Feeling a bit lost

A subcategory of 'illuminating working in the dark'; 'feeling a bit lost' illustrates the ambiguities professionals experience when they try to cross boundaries of meaning (like crossing the dateline) such as extending roles or implementing the 'Hospital@Night'. 'Feeling a bit lost' indexes professionals seeing potential for failure and heightens the level of agency to act. The more experienced reported that they make a mental assessment of each person's ability and adjust the team accordingly. However, their vigilance is often stumped because discontinuities in care.

According the professionals, 'feeling a bit lost' happens when there is an influx of newer professionals, a surge in patient need and when a remotely placed decision maker overrides decision-making. It defines professional acknowledgement that the world consists of *'unknowable and unpredictable streams of experiences that people are driven to know and understand'* (Weick, Sutchcliffe & Obstfeld, 2005; Miles, 2012; Blumer, 1969). It also

shows professionals as more reflective than overconfident about their abilities (Kahneman, 2011; Stanovitch, 2011).

To lessen the experience of 'feeling a bit lost', eliminating barriers in communication in healthcare has become a focus of many studies. For instance, at the Seattle Children's hospital, the design team have designed a tool which shows who is communicating with who at any one moment in time (Wellman, Hagan & Jeffries, 2011). The authors of the tool feel that this paper tool has improved team communication. Coordination, balanced contribution from members, shared dependency and desire to put in effortful work by colleagues are the other parameters (Arnold, et al 2010).

According to Senior and Swales (2007), the above parameters shape the purpose and set the climate for resolution of conflicts as well which could be formalised for learning from conflicting situations (Irvine, 2006). In the Obstetric-Paediatric interface, the system for professional conflict resolution is unclear. 'Feeling a bit lost' acknowledges ignorance about what is to come by interviewees and may sign post deep learning about a system precariously perched between '*stability and instability*' (Coffey, 2010: 70). In such situations, according to one source, '*human decision-making is both rational (we all make rational decisions) and faulty (we can jump to conclusions)*' (Mercier & Sperber, 2013: 150). To help increase rationality in decision-making, Senge, for example, has developed the 'ladder of inference'.

The ladder of inference for instance helps to show that the underlying mechanism in 'feeling lost' may lie in the assumptions about reality. Senge suggests a staged inquiry into seemingly routine problems, to encourage professionals to examine how they arrive at 'their truth' (Senge *et al.*, 2011; Nelson, et al 2011). Yet others have suggested creation of educive environments through working reflectively with human nature. For instance Cruess, Cruess & Steinert (2009: 99), suggest a ten-point model to '*educive the best professional practice amongst residents*'.

In inter-professional teams, it might be useful to check inference through collecting data, examining the stages in meaning making and the development of beliefs, which inform action. For instance, useful data could consist outcomes and cost of every patient care episode (Porter & Lee, 2013). In addition, there are now inter-professional simulation learning programmes indicating the increasing importance of contextual learning (Montgomery *et al.*, 2012). Professionals complained that they do not have time for such activities, including time for face-to-face conversations with each other in the absence of patients. Professionals also pointed out that they do not have influence on the allocation of tasks unrelated to patient care. 'Feeling a bit lost' comes across as a plea for a compass or guidance in a context where losing things of professional value is a strong possibility.

8.2.2 Losing things

Apart from professionals 'feeling a bit lost', they may also experience loss of important reference points or 'losing things'. In the last few years,

professionals recalled losing things of professional value such as colleagues, patients, information, authority etc. Some professionals felt that their professional work, which involves participation and bringing about change, is lost too through service re-organisation in which they have limited say.

According to professionals, participation in the Obstetric-Paediatic interface involves sharing life stories and doing things with others both in the work place and away from it. Yet this is unrecognised as learning by the organisation and may have contributed to one professional experiencing stress when she lost time to talk to her colleagues because of the onerous work schedule and secrecy surrounding work related decisions.

It has been posited that the best approach to getting the best out of another person is through connecting with them (Hallowell, 2011). A hierarchical mental model may account for some of the disconnections experienced by professionals. According to professionals, cascaded top-down orders tend to disrupt participation. Furthermore, professionals talked about an expectation of compliance from the top. This may indicate that decisions are arrived at *'more through other methods of engagement than collaborative working'* Arnold *et al.*, 2010:507 and (Janis, 1982; Whyte, 1993).

Current thinking suggests that collaborative decision-making is more effective in situations, which involve making decisions that affects the viability of the organisation (Ives Erickson & Ditomassi, 2011). Others have encouraged the concept of co-creation with colleagues (Ramaswamy & Guillard, 2010) or

with users (Gouillart & Billings, 2013). Goffee & Jones (2013) posit that working together to turn an abstraction such as EWTD into something that has real positive impact requires respecting and making use of different perspectives, especially habits of mind and core assumptions of frontline people.

It seems that 'losing things' includes missing opportunities to participate in the work of transforming an abstraction into experienced reality. Indeed, during the course of interviews some professionals spoke about abstractions such as the extended professional roles as if they were as animate as their pet Labrador who has a personality, which may indicate emotional investment into their work. Yet others were not so convinced.

In the Obstetric-Paediatric interface, participation seems to separate insiders from outsiders and defines identity (Wenger, 2008). Those who do not participate become outsiders and the interface does not seem to have a novel way of bringing different minds together. It can be speculated that the interface engages in losing things such as knowledge carried in the heads of 'outsiders'.

Some participating professionals felt that they had lost important perspectives on problems confronting the interface such as the EWTD through losing colleagues. For example, to most interviewed professionals, career advancement was unclear if one did not become a manager, indicating losing time in training. One professional reported that a number of key posts were

vacant because trained professionals high potential to have positive impact on others (Fernandez-Araoz, Groysberg & Noria, 2011).

A contemporary observation is that healthcare organisations that lose staff have a lower store of organisational learning to pass on and may have worse outcomes (Hill, 2010; Clarke & Aitken, 2008). The Obstetric-Paediatric interface may be losing things through professionals leaving the organisation and a significant amount of unengaged professionals. Engagement has been a concern in healthcare. The King's Fund recently gave some advice on ways of engaging professionals more comprehensively (King's Fund, 2012).

Studies indicate that linking a career advancement scheme to the organisational mission results in professionals who are satisfied with their jobs, who want to commit their careers and who are likely to engage in scholarly practise (Murphy, Llewellyn & Carlson, 2011). Equally, it appears that participants, who may have lost friends, are engaged and ready to stay the course (Kanter, 2011). Those who stay may mentor others and impart through narrative how they have come to see their way through the organisation.

Another area of 'losing things' was through professionals having limited access to clinical evidence. Professionals felt that they were losing time in decision making when working directly with patients. Unlike other parts of the hospital, the unit does not use of technology such as computerised provider order entry routinely (Keatings *et al.*, 2006; Abramson & Kaushal, 2012).

When situational awareness is inconsistent, the flaws become obvious (Luria et al, 2006).

Moreover, frontline professionals felt that mothers needed information for strategic decision-making. Mothers for instance, like to know the likelihoods of abstract events such as respiratory distress at 24, 28 and 36 weeks and whether steroids will be effective or not (Spitzer & Ellsbury, 2012). Mentally retrieving such data is effortful for a busy professional because it requires certain evidence processing ability (Kahneman, 2011).

To answer novel questions such as the given example requires one has to stop routine care to retrieve relevant evidence from memory (Stanovitch, 2011). For this reason, the Institute of Medicines in 2001 discouraged professionals from relying solely on memory and experience for decision-making (Corrigan et al, 2001) especially in high acuity situations. Decision-making ware could help.

Technology has been identified a crucial step in strategy risk management (Abramson & Kaushal, 2012; Koser, Berkovitch & Koren, 2006) and evidence based practice is an important consideration for transformative teams seeking to use resources wisely (Corrigan et al, 2001). Evidence practice models have successfully linked to mentorship (Long, Burkett & McGee, 2009), and quality improvement programmes (Spitzer & Ellsbury, 2012).

Yet in the Obstetric-Paediatric interface, professionals stated that they relied on seeing and acting quickly for them not to lose things such as patient

information or administer wrong dosages. One professional recalls how the team did not receive a history of patient's syncope resulting in the team being unaware of the patient's vulnerability as the patient used a bath system. Under such circumstances, professionals can feel alone in many dimensions.

8.2.3 'Being alone'

Professionals were able to recognise how the Hospital@Night system disconnects professionals described by 'Being alone'. 'Being alone' involved senior professionals who found 'conflict between' managing the service and caring for patients (Arnold *et al.* 2010:464) such as holding a different perspective, not being regarded as part of the team and the isolation of litigation. Equally, 'Being alone' shows professional ability to understand the feelings and share the feelings of others caught up in indeterminate situations or empathy (Rosenbloom, Freudenreich & Price, 2013). As a group of participants, professionals suppressed their feelings about their own onerous tasks to talk about the junior doctors' plight.

One professional movingly described the negative effects of sleep deprivation on performance during resuscitation when a doctor called out seemed to have been aroused from deep sleep. The doctor's under performance was most probably due to diminished capability than competency limitations. Studies have shown that sleep deprivation can impair performance on memory tasks, cognition and fine motor skills (BMJ, 2005; Czeisler, Wetzman & Moore-Ede; 1980; Philibert, 2005). It has been found that safety improves, as worked hours are kept below 16 hours (Rosenbluth & Landrigan, 2012). The hospital

has eliminated most shifts greater than 16 hours for junior doctors. Job redesign could eliminate isolation. Such redesign requires collaborative working however. Other interventions such as cognitive restructuring of stress could be aimed at individuals to help them to respond to the stressor better or help them manage their symptoms better (Landy & Comte, 2007). As part of redesigning and cognitively restructuring the work environment, the organisation has introduced an electronic roster.

Studies indicate that electronic rostering improves working lives and improves staff retention (Maxson-Cooper, 2011). However even with electronic rostering, midwives work to a certain timetable, which is different from Radiographers', and both which are different from medical professionals'. Kahneman, (2011) suggests that there are instances when less is more. In this case, less variation in work schedules may be more by getting people to build a shared purpose through enhanced interaction and collaboration.

8.3 Collaboration needed to support working in a constantly changing environment

Collaboration offers an opportunity for capacity building amongst professionals. However, capacity is a human quality rather than a skill and more to do with how people are (Hawkins & Smith, 2013). This study has shown that professionals in the interface are unselfish and willing to work towards a shared purpose with others. What they do not have is an infrastructure to support their disposition towards others.

An organisation can build its capacity through better understanding of the purpose of its operations, which participants in the research have partly described. Sometimes organisations may have to acquire knowledge from outside (Miles, 2012). The discussion so far indicates that the Obstetric-Paediatric interface readily appropriates external knowledge to such an extent that local knowledge production may have been stifled.

Professionals spoke of moving from one initiative to the next, of expectations of compliant implementation rather than strategic exploration, and of professionals being asked to do more and more in the shift time. Issues that appear intractable and less well understood about capacity building in the Obstetric-Paediatric interface are how to use professional time profitably and how to transform and create a learning culture to generate local knowledge about acting always with responsiveness to emergent problems.

Collaboration as a requirement for working in a complex environment draws strands and examples from shedding a light, working with others, seeing and acting on strategy risks, acting with responsiveness, using time properly, setting up collaborative care and a learning community, and embedding learning into day-to-day work.

8.3.1 Shedding a light

'Shedding a light' is about imparting to the less experienced professionals the ability of 'sensing risk' or becoming more aware of when things may not be right. 'Shedding a light' captures senior midwives as goal-directed clinical

educators who help others build capacity through 'shedding a light' on day-to-day professional problems.

Studies indicate that organisations have a system of knowledge management. According to this view, organisations are social systems that use and store internal knowledge. Internal knowledge through their mental model of knowledge is categorised as competences and capabilities vital for the firm's survival, growth and success (Hakanson, 2010). The study has shown that professionals are encouraged by the organisation to pay attention to knowledge necessary for organisational survival. In addition, although internal knowledge management model is not recognised as such, in the Obstetric-Paediatric interface, knowledge management shows features of a network (Miles, 2012).

Yet it seems that the organisation has added on activities without evaluating their impact on professionals as distributors and keepers of organisational knowledge. According to professional reports, frequently in the interface, professional behaviour is intentional, controlled and thought through, which is to learn from others and teach others. Occasionally at crucial times and as professionals internalise their learning, behaviour can be unintentional, occasionally uncontrollable, and importantly automatic or unconscious especially when professionals are busy (Ajzen & Fishbein, 2000; Harvey *et al.* 2009; Handyside & Suresh, 2010).

Such actions are now recognised to happen when the rule following algorithmic and reflective minds do not override the autonomous mind (Kahneman, 2011; Stanovitch, 2009, 2011; Evans & Frankish, 2013). In most instances, all behaviours contribute to good outcomes for patients. For instance, professionals handover and allocate tasks to each other. To facilitate handover and takeover without losing information, they have adopted the SBAR tool (Haig, Sutton & Whittington, 2006; Nelson, et al 2011).

The SBAR heuristic stands for Situation, Background, Assessment and Response. SBAR summarises the status of the patient. With vivid exposure, the SBAR algorithm can easily install as a heuristic. Once installed, SBAR is designed in such a way that it will become part of the unconscious mind, which triggers automatically appropriate behaviours.

Indeed, some professionals reported finding deviations from unconsciously agreed upon planned behaviour distressing, especially during resuscitation. Professionals may have come to frown upon improvisation in favour of accepted algorithms. However, like many other things in Obstetric-Paediatric interface, the understanding of resuscitation is going through a period of rapid change (Wynn & Wong, 2010). Professionals may miss important learning opportunities in seeing only one acceptable way of knowing.

Indeed, it seems that how professionals act in action may give professionals reflective insights into shared ways of knowing in action. Capturing knowing in action can be through video recording of procedures including handovers

(Rich, Leone & Finer, 2013), continuous data collection (Lloyd, 2010) and simulation of past or possible future scenarios (Griswold *et al.*, 2012) with others. With use of tools such as ladder of inference, professionals can participate in reshaping reifications such as resuscitation algorithms. Participation leads to engagement with local issues and may go a long way in creating a sense of shared purpose and accountability.

8.3.2 Working with others

'Working with others' describes' how professionals hold themselves accountable for the quality of care delivered. Professionals recognise that just by having midwives and those who are not, encourages exclusion and maintenance of group loyalties. For example, midwives rather than regarding doctors as superiors who should be undermined, seemed to have great respect for doctors whom they ask for help. They also work collaboratively with professionals in Safeguarding children. They liaise with Radiology, Laboratories, Paediatrics and the Accident and Emergency.

The government recognises the difficulties inherent in building collaborations. In 2010, the government issued a white paper 'Working Together to Safeguard Children (DoH, 2010). In this paper, the government emphasised the need for inter-agency working to protect children. The study found that amongst Midwives, there was an awareness of social issues that required inter-agency working, yet it's the frustrations of the time requirements of interagency working that came to light during this research.

In such situations, job stress (Carayon, 2007) may arise because of competing demands within a time-limited shift. In carrying out statutory work, capacity costs arise, which may have not been anticipated. Sometimes to deliver, an acceptable level of service, professionals prioritise their work and through their ability to see and act, call on others such as colleagues at home and nurse practitioners.

Porter & Lee (2013) have suggested a migration from business units (controlling costs) to more practice based integrated care units. Such as an inter-relationship based unit would have for instance all participants in this research in one integrated practice unit so that they become responsible for shaping the units strategy.

8.4. Seeing and acting on strategy risks

Professionals 'seeing and acting' together on strategy risks safeguard the outcomes of the baby in utero, newborns and their mothers and underpins the purpose of the nighttime community. The Obstetric-Paediatric interface generates caring relationships with patients, which job plans and descriptions do not capture. Moreover, although professionals do an excellent work, it seems that there is no culture of appreciative inquiry (Gino & Pisano, 2011) to encourage and build on this style of working.

Senge has called the conditions of uncertainty in any organisation the 'rocks beneath the water table' (Senge *et al.*, 2011:242). Senge suggests that one has to lower the water table of seemingly stable organisational culture to get

to the rocks. Discursive in-depth interviews seem to have lowered the water table sufficiently through creating an atmosphere of openness. With openness, professionals can raise issues of organisational structure and ergonomics, professional development and collaborative working through acting with responsiveness.

8.4.2. Acting with responsiveness

Acting with responsiveness is an important capability of professionals in the Obstetric-Paediatric interface. For instance, the organisation has acted with responsiveness to patient need for privacy and dignity by creating more family centred delivery suites with en-suite bathrooms. Yet the shared reality in the Obstetric-Paediatric interface is not homogenous. Acting with responsiveness stands for physical presence by a person who is emotionally and spiritually able to give support to another person (Potter & Frisk, 2007).

One professional explained that sometimes doctors do not 'offer all medically reasonable alternatives'. Studies indicate that costs of healthcare are related to how well patients experience the response to their questions. One of the ways is by being aware of the time professionals spend with patients.

To improve and monitor personal performance and support even better decision-making, some organisations have gone as far as suggesting technological wearables or physiolytics that are able to quantify movements in the workplace, monitor efficiency of working with information and capture and analyse big data from emergent action (Wilson, 2013). Even without the help

of technology, professionals in the Obstetric-Paediatric interface have started finding ways of using time properly because of time constraints.

8.4.3 Using time properly

Using time properly arose out of concern by professionals that they may not be able to do all tasks within a shift. Each of the tasks professionals perform takes time. How to control activity per shift concerned professionals. Professionals seemed keen to try to understand a bit more about time allocation on each task. For instance, in the absence of electronic medical records, professionals can spend time searching for medical records and making phone calls at the expense of other activities.

Furthermore, there is work that is unavoidable. Professionals fear that value based mandatory work such as safeguarding work could drive down overall quality of care per shift by taking up time for other activities (O'Brien, Kumar & Metersky, 2013). Some organisations have devised novel work designs that enable professionals to stay for much longer on their shift to finish off value added work for which professionals are rewarded (Hancock & Ellsworth, 2013).

For migration to an integrated practice model to become a reality, costing of healthcare has to change. Kaplan & Anderson (1998) posited that costing based on surveying and measuring activity would account better for resources needed to provide a service. With this survey, an estimation of the organisational capacity could be made through knowing the average

percentage of the time employees spent on an activity and costing that or activity based costing (ABC). It appears that the Obstetric-Paediatric interface uses a similar methodology to estimate capacity costs.

However, calculating productivity of professionals may be falsely low for a midwife or radiographer whose activity is entered under the consultant's name. The consultant's productivity may be falsely high (Schleien, 2013). Furthermore, not all productive activity can be programmed with accuracy. For instance, much of the activity that is productive of good clinical outcomes in the eyes of other professionals and patients is soft and difficult to measure.

It might be that a qualitative exploration of each and everyone's work might prove quite useful in improving understanding of the amount of time professionals spend on each activity. When there is more activity in a shift, additional capacity could be found (Kaplan & Cooper, 2007). Currently professionals call on each other informally.

8.4.4. Collaborative care and learning community

The study has identified that apart from structural and employment issues, the interface generates data, which it does not transform into knowledge. Marchand and Peppard (2013) have suggested setting up a data-extracting department. Such a department would have clinicians, business specialists, IT specialists and behavioural psychologists to extract data on which professionals can base their decisions.

A department of data extraction might even experiment with new ways of working; address the heavy reliance on heuristics, power and control and the time professionals take to complete certain tasks. Others have found that collaborative care is sustainable only when the cost of running a department such as the one for data extraction becomes a cost shared between collaborators, developing circumscribed measures and when part of the work is to change behaviour of professionals (Watson & Scales, 2013). One approach is to embed learning within the tasks professionals perform.

8.4.5. Embedding learning into day-to-day work

One of the findings from the research was the loose integration of learning and practice. There is more opportunistic learning with some learning approaches adopting quite objectivist and behaviourist orientation towards learning. When midwives work with mothers, there is co-construction of learning and practice. This approach remains unarticulated as learning. Increasingly, there are a number of innovative inter-professional learning programmes, which take the orientation of learning while practicing.

The main objective of such programmes is to help professionals in their day-to-day decision-making. Other inter-professional programmes have aimed at involving patients in planning decisions (Gordon, Wilson, Hunt, Marshall and Walsh, 2004). Mentorship has also become an important adjunct to direct learning for professionals in the work place (Marshall & Gordon, 2005, 2010).

Grounding in the research, it seems fitting to suggest that the proposed programme, in the Obstetric-Paediatric must align with the organisation's mission of delivering patient outcomes, financial stability and inter-professional collaborative working. The infrastructure should be related to building a collaborative enterprise with a purpose (Adler, Heckscher & Prusak, 2011) of enriching the work experience of those deliver care. There is an opportunity for a programme to build resilience among professionals working in inter-professional teams (Seligman, 2011).

8.4.6 Conclusion: Community for collaborative learning

The discussion has covered three issues, how the organisation enables the workforce to become self-directed professionals through acquiring night vision, professional awareness of the disorientating effect to newcomers of Obstetric-Paediatric interface as an established unique dynamic complex system and the collaboration needed for working in a constantly changing environment. Inter-professional learning can support the emanation of collaborative practice.

This study acknowledges that professionals who participated in this research showed resilience and some of them personal growth in face of setbacks. There are benefits for scholarship leading to higher clinical qualifications such as Masters and Doctorate of Professional studies in service delivery (Boat, 2007). This programme would put professionals at the centre of transforming data into new knowledge for creating value for patients (Marchand & Peppard, 2013).

Professionals showed character. They were remarkable with each one of them being quite self-directed, collaborating for something bigger than themselves. Working in the Obstetric-Paediatric interface entails sensing out strategy risks.

Although statistically risk is a distribution of possible outcomes, their likelihoods and their subjective values (Miles, 2012), the study has not discovered astute statisticians in Obstetric-Paediatric interface. It has found professionals who worry about the readiness of the system for a poor outcome' who act to mitigate the perceived risk of that impact.

The community could thrive if new members are formally inducted and their performance assessed in terms of their contribution to a shared purpose. For instance reward will not be by results but rather on whether the effort (successful or failure) has contributed to learning for the organisation. This approach may go a long way towards creating an integrated practice unit.

Chapter 9

Conclusion

9. Introduction

This study has explored perceptions of frontline professionals working in the Obstetric-Paediatric interface. The conclusions from the study mirror the research objectives, which were to;

- Explore the experiences of professionals involved in the Hospital@Night system;
- Determine how participants describe the systems in place to maintain patient safety;
- Investigate experience differences and similarities between professional groups;
- Explore how participants describe their competences in team collaboration;
- Describe how participants perceive the capability of the Hospital@Night system in the Obstetric-Paediatric interface.

9.1 Conclusions

9.1.1 Experiences of professionals involved in the Hospital@Night

The study has found that senior frontline professionals, apart from mitigating operational risks through compliance with guidelines, manage risks related to the implementation and viability of the Hospital@Night and strategic risks through their ability to see and act through acquiring night vision.

9.1.2 Professionals and patient safety

Professionals were concerned that the Obstetric-Paediatric interface system is unpredictable. To address unpredictability, professionals primarily address safety through their direct work with patients. Professionals have established loose inter-professional working relationships. Inter-professional learning occurs informally and opportunistically during the brief encounters between professions.

9.1.3 Professional perceptual differences and similarities

There were three areas of difference or conflict between professional groups: information sharing with patients; poor form filling and exchange of information across disciplines; and considering others as not belonging to the core service group. The midwifery perception of the Hospital @Night was that medical professionals sometimes did not give patients full information. However, the interviewed doctors did not consider giving less information as problematic.

Professionals were similar in approach to patient concerns, doing more than they were contracted for and have not developed an identifiable system of capturing, analysing and utilising data they generate within their workplace to understand the organisation better. Professionals shared a tendency to act with responsiveness to patients. They used less technology in clinical judgement, which in one sense enhanced maternal ownership of the birth process and in another sense made the work more risky through making professionals reliant on memory for information and calculation of dosages.

They were aware of the vigorous system of investigating critical incidents to manage compliance or operational risk, but they perceived there was no established culture of exploring strategic risk.

9.1.4 Competences in team collaboration

Barriers to collaborative working were identified. Professionals have developed a network of interdependent colleagues but could be quite sensitive about people from outside their 'territory' coming in and giving advice. The perception of some non-medical professionals was that some doctors were not keen to take advice from them.

9.1.5 Capabilities of the Hospital@Night

Professionals describe having developed ways of ensuring good outcomes for patients and have reported that the incidence of Caesarean section appeared to be decreasing since extending midwifery roles. Professionals have found ways of fitting in a multiplicity of roles within a shift. They also recognise that activities such as learning together, which have no immediate, direct bearing on patient outcomes in a shift, are likely only to be done as and when possible. Any learning and mentoring is opportunistic and directed at ensuring smooth service operation. Professionals recognise that they do not have time to do any in depth analysis of issues because of time limitations and tend to use their time as profitably as they can.

9.2 Unique contribution of the study

Although the study cannot claim to have arrived at incontrovertible generalisable truth, the exploratory study makes three inter-related contributions to professional learning within the organisation. These are the identification of unique learning needs arising from the Hospital@Night initiative; the value of capturing and using information that arises from practice; and the recognition of opportunities to use incidents in the night for learning.

9.2.1 Learning

The unique contribution this study makes to practice development is the possibility of intervening with inter-professional learning to improve professional team decision-making. Inter-professional learners could be encouraged to improve problem identification, reframing the problem from several perspectives and for considering alternatives.

9.2.2 Application of data from practice

Professionals indicated that the organisation does not have a culture of routinely capturing information generated from care. This study has confirmed the role of insider researcher in bringing up issues for re-examination and reconsideration.

9.2.3 Opportunity to use incidents in the night for learning

Incidence investigation is extensive and thorough. Professionals pointed out that they did not seem to have a supportive system of participation in learning from failures, near misses and successes.

9.3 Rigor and limitations of the research

9.3.1 Rigor

The study operated within the research governance framework. In the conduct of the research, the research followed GT methods in data gathering, analysis and reporting. Adopting a GT approach, the researcher remained aware through out the research that the aim was to explore and discover what it meant to professionals to work in 'Hospital@Night' after role extension and reduction in junior doctors hours.

Moreover, the purpose of the interviews was solely to generate ideas through questioning, recording and analysis. The researcher accepted that it was impossible to be value free and detached from actual data generation, analysis and reporting. The study relied on credibility, originality, usefulness and transferability, confirmability and authenticity as markers of rigor in qualitative research settings as described by Charmaz (2006).

In keeping with Charmaz, credibility was achieved through researcher devoting sufficient time in preparation and analysis of interviews. The categories indicate a familiarity with the research area. The categories cover a broad range of reported professional experiences.

The interpretation of interviews were through consistent use of the constant comparative GT methodology, looking for confirming and negating instances between interviewees and between emergent categories. The difficulty with GT methodology was keeping pace with the research process. Analysis is iterant. This resulted in the next participant being asked questions, which had arisen from, initial analysis. Where possible participants were recalled for a second interview.

The research was a contest between researcher originality and the need to conform to GT methodology. Nonetheless, the categories have freshness and describe aspects of the 'Hospital@Night' that resonates with other professionals. Furthermore, the categories offer new insights into inter-professional learning because this research has established that professionals need more skills in inter-professional strategic risk management.

Originality was partial. The categories are original and not in common parlance but they are in a language that is understandable and easy to relate to. The social significance of this work is that, the research shows professionals who are capable of extending roles and are dedicated to their work but whose education is informal and opportunistic. An inter-professional learning framework could relate learning in practice to values creation through improvements in patient outcomes.

The research has usefulness; it is transferable to other contexts. The categories are about cognitive blindness in being scared in the night, a reawakening with experience in acquiring night vision and desire to be with others who have had a similar experience in forming a nighttime community indicating a generic process of coming to know. The research has implications for discipline-based practice, as we know it. This research shows that partitioning the hospital into disciplines results in discontinuities in information flow and makes an argument for integrated practice units and research from the perspective of patients.

9.3.2 Limitations

This is a study of a local service, the 'Hospital@Night'. As a local construct, there is no mirror structure outside of the 'Hospital at Night'. It is limited in the absence of generalisable facts one can draw from it. Moreover, although Constructivist GT honours and values the multiplicity of realities they engender, it is impossible to represent each of the realities. The best the researcher could do was adopt an insider point of view and to be a passionate co-participant whose main concern was to enable the co-creation of knowledge with participants.

The sample of 12 was a convenient sample. It is impossible to achieve homogeneity of views as truly representative of the Obstetric-Paediatric interface. For instance, there were no Paediatricians or Special care baby unit nurses in the study. It is unknowable how different the conclusions would

have been had they expressed an interest in participating in the study. In other words, the conclusions are provisional.

9. 3.3 Surprises

GT methodology is about discovery. The discoveries during this research have been unexpected and have enhanced researcher learning about other professionals. The multiple surprises indicate why exploratory methods using in-depth interviews are now a recommended tool in strategic risk management (Kaplan & Mikes, 2011). At personal level, researcher has acquired a renewed respect for GT methodology and the professionalism of participants in this research.

When people talk about qualitative research methods, GT methodology easily rolls off the tongue. Because of that, the researcher held some prejudices about GT methodology. One prejudice, which on reflection may have had no foundation, was that GT methodology was not rigorous enough. Initially during proposal writing the researcher preferred the more complex Bricolage methodology. With gentle persuasion from the supervisor, a GT methodologist, the researcher embarked on the journey of practice and proposed a study underpinned by GT methodology.

To the researcher's surprise, although the methodology is quite straightforward in books, in practice it is a complex, delicate and precision tool requiring symbolic inter-subjective interaction with people, with the spoken word in listening and written word in memo writing.. The most important

lesson from using GT methodology in this research is that knowledge creation takes time within the research process and each step in GT methodology is critical to knowledge creation. It is a demanding methodology, which requires the researcher's full immersion in the moment of interaction. To ground emerging categories, the researcher interacted with and generated data through listening to recordings, writing memos and reflection on the research process. The most enduring lesson is that each step in GT methodology is problematic and contested. As result within GT methodology, there are now many branches.

The findings have been a revelation too. Although the categories emerged quite quickly because the story line had become clear from the first three interviews, grounding the categories, 'Being scared in the night', 'Acquiring night vision', 'Forming a night time community' and 'Working in the dark' was a more delicate and reflective task than was anticipated. There was a crucial difference between the categories when they first emerged and how they appeared to the researcher at the end of report writing.

When the categories first emerged, on paper, the four categories appeared discrete and neat. However as the researcher diagrammed the emerging theory with support from supervisors, the process of enriching and grounding these categories became more complex than simpler. At this time, it became clear that theoretical saturation was not possible and categorisation can never be an all or none process. Category growth relied more on constant comparison through discerning differences and similarities. As the categories

matured, the researcher had to accept that the four categories were not watertight. They were leaking into the other interconnected story which is the substance of this report.

The participants offered surprises of their own. For instance, rather than finding stereotypical 'rule following' practitioners attending to medical orders, the research found midwives and other professionals who were more concerned about patient outcomes than costs especially to themselves. Midwives took professional and personal risks to deliver certain outcomes in conjunction with mothers.

The organisation did not seem to have an identifiable way of rewarding such dedication. The research found that the organisation had an expectation that midwives will deliver over and above their job plans. There was evidence that lapses in judgement could be punished quite harshly in the Obstetric-Paediatric interface. The dedication of midwives was at variance with the contemporary discourse of cutting costs in which outcomes are a secondary objective. What has become even more surprising is that literature that is more recent than the report seems to support the view that healthcare costs will come down if more focus on better patient outcomes is achieved (Porter & Lee, 2013).

Furthermore, even when under pressure because of limited numbers of staff, professionals showed empathy for more junior staff. Again, this was surprising because researcher prejudice at the beginning of the research was that an

emotional distance exists between the professions. The findings indicated professionals in Obstetric-Paediatric interface have emotional agility or ability to manage negative thoughts and replace these with more helping action (David & Congleton, 2013).

Although some professionals felt unrewarded after Agenda for Change, they gave more for their patients, colleagues and junior staff. Furthermore, these professionals' resilience and ability to bounce back from disappointment was phenomenal and a number had come back to work after ill health. Interviewed professionals also showed a wide knowledge base, hitherto untapped but that had the potential to help medical professionals transform their approach to patient needs if ever it was formalised.

9.3.4 Influence of this research on the researcher

Because of the surprising findings, this research has become a major influence on the researcher's orientation to clinical practice. Secondly, the research has also changed the researcher's way of thinking. Finally, this research has transformative potential about how researcher personal practice and practice in general should change.

9.3.4.1 Research as a major influence on the researcher

From this research, it appears that frontline professionals have answers to most strategic risks and take action to avert and mitigate those risks. Much of this practice is unarticulated as such. Contemporary practice suggests that the organisation should rely on external advisors to diagnose and plot its

future direction. There is some sense in this practice and expert advice could discourage a 'do it yourself culture'. From the research expert organisational diagnosticians and even guidelines point towards a general direction for organisational practice. This research has shown that the unique direction of the organisation that takes into consideration its idiosyncratic nature lies in the experiences of those who work on the frontline. Frontline professionals should be consulted about change initiatives.

My first conclusion is that qualitative research using methods such as in-depth interviews should accompany every change initiative. To do this the organisation must elevate organisational research and give it the same status as clinical practice through encouraging professionals to train for and practise research methods formally through masters and for a few at doctorate level.

9.3.4.2 Change in researcher thinking

The research has identified real people. This research has shown that just below the façade of the busy professional is the real person. The real person constantly seeking to be of help, approaches others for their perspective, be they patients, more junior colleagues or colleagues. In other words, professionals have a subculture of mindfully responding to each other.

My second conclusion is that if there is one thing the organisation can do to create a sustainable culture; the organisation must re-introduce conversation in teams. Professionals should be given opportunities to engage in conversations of finding out more about other professionals.

9.3.4.3 Transformative change in practice

The research has shown that professionals have come to see learning after an incident as more punitive than remedial.

My third conclusion for practice is that the organisation could introduce a formal coaching culture to improve formal learning from experience. A coaching culture could aim at strengthening professional decision-making through appropriate development of skills. As such, all teaching by the researcher as a medical consultant will be developed into an inter-professional focus.

9.4 Recommendations

The bases for the recommendations offered below are the findings, discussion and conclusion of the study.

9.4.1 Emerging from being scared in the night is the notion of promoting an autonomous and trusted workforce. The organisation could

- recognise the disorientation of systems for newcomers and new systems for established staff
- implement inter-professional learning approaches in staff development strategies to enable solutions to the challenge of professional fears and lack of trust about interdisciplinary working;

9.4.2 Coming from acquiring night vision, the organisation could

- have systems in place for enabling inter-professional learning in the hospital at night
- support valuing the contributions that all other professionals bring to care
- acknowledge the central role midwives have in teaching each other and other disciplines
- recognise the value of and provide support for all professionals learning and being taught by other disciplines.

9.4.3 From forming a nighttime community comes the notion of collaborative working. The organisation could

- encourage of the development of communities of practice supported by inter-professional learning
- put in place a coaching and mentorship culture and
- extend roles where appropriate

9.5 Researcher reflections

As the research concludes, it becomes necessary to reflect on the journey.

The aim of the research was to illuminate the 'Hospital@Night' at the Obstetric-Paediatric interface. The research is contradictory in that I as a male of African background could not have imagined several years ago that I would for eight years work with issues that are normally of interest to eminent feminist scholars.

I have learnt a great deal as I have grappled with the material. Through constant feedback from my supervisors, I have begun learning about how to

write logically about issues that would traditionally be out of my domain of clinical Paediatrics. I am now more aware and appreciative of the personal risks midwives assume on behalf of patients. There is scope for inter-professional learning in the Obstetric-Paediatric interface.

APPENDIX

Introduction

The appendix contains all instruments used in the research.

Appendix I shows the National Research Ethics Committee (NREC) and NHS study approval.

Appendix II addresses issues related to 'Being insider researcher'. In GT based research, the conduct of the research is part of the credibility of generated knowledge. The following tools provide an auditable trail of the actual research process

- Letter inviting participation
- The interview schedule, which contains sample questions
- Consent as part of the tools for generating data. Through consent participants could withdraw from the interview at anytime, the consent put the participants finger on the switch
- Confidentiality was an important part of knowledge generation. The transcriber had to sign a binding clause. Confidentiality was key to the success of the research

Appendix III shows the tools used in the analysis and attest to the authenticity and trustworthiness of the research.

- The protocol of running the interview
- A sample of initial code
- A sample of the memo written on Dragon
- A sample of the diagramming process showing the emergence of category a subcategory of 'Being scared in the night'

Appendix IV describes technology used in the research

- HyperResearch
- Olympus Digital
- Dragon naturally speaking

Appendix V lists a glossary of terms underpinning GT methods

I. National Research Ethics Committee (NREC) and NHS study approval

NREC approval of study 08/H1/305/58 and NHS approval of study

08/H1/305/58 are both attached



National Research Ethics Service
South Humber Local Research Ethics Committee

Room FC27
Coniston House
Trust Headquarters
Willerby Hill Business Park
Willerby
HULL
HU10 6NS

Telephone: 01482 389157
Facsimile: 01482 303916

15 September 2008

Dr. Henry Stokes Mulenga

Dear Dr. Mulenga

Full title of study: Medical and Midwifery perceptions of the Hospital at Night (H@N) in an NHS Hospital.
REC reference number: 08/H1305/58

Thank you for your letter of 12 September 2008, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by Dr Ian G Woollands – Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The Committee has designated this study as exempt from site-specific assessment (SSA). The favourable opinion for the study applies to all sites involved in the research. There is no requirement for other Local Research Ethics Committees to be informed or SSA to be carried out at each site.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission at NHS sites ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements.

This Research Ethics Committee is an advisory committee to Yorkshire and The Humber Strategic Health Authority

The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

Guidance on applying for NHS permission is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Application	Version 5.6	18 July 2008
Investigator CV	Version 1	18 July 2008
Protocol	Version 11	11 July 2008
Covering Letter	Version 1	28 August 2008
Letter from Sponsor		17 July 2008
Interview Schedules/Topic Guides	Version 1	11 July 2008
Questionnaire: Risk Assessment Questionnaire	Version 1X	11 July 2008
Advertisement	Version 2 - Final	28 August 2008
Letter of invitation to participant	Version 11	11 July 2008
Participant Information Sheet	Version 2 - Final	28 August 2008
Participant Consent Form	Version 2 - Final	28 August 2008
The Hospital at Night Research Process	Version 1	28 August 2008
Unfavourable opinion letter from South Yorkshire Research Ethics Committee	Version 1	02 June 2008
Feedback for researcher and supervisor	Version 1	14 July 2008
Scientific Review letter	Version 1	10 March 2008
Results Broadcast	Version 11	11 July 2008
Flow chart	Version 2 - final	28 August 2008
Research Governance - Registration of project	Version V11	11 July 2008
Project Funding	Version V11	11 July 2008
Running the Interview	Version 11	11 July 2008
Scoring and analysing data	Version 11	11 July 2008
Transcriber Confidentiality Agreement	Version 1V	11 July 2008

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your view

08/H1305/58

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

08/H1305/58

Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely

Chair – South Humber REC

Enclosures: "After ethical review – guidance for researchers" [SL-AR1 for CTIMPs, SL-AR2 for other studies]

Copy to:

[R&D office for NHS care organisation at lead site]

Permissions

This letter authorises you in principle to undertake research within the Trust. However, it is your responsibility to ensure that individuals appropriate to your work have no objections to your studies. This department accepts no liability for non co-operation of staff or patients.

Contracts

It is your responsibility to ensure you have sufficient indemnity to undertake this project and that letters of authority / honorary contracts are in place where necessary.

Auditing

I would strongly urge you to maintain an accurate and up to date site file for your documentation, as the Trust randomly audits projects to assess compliance with the relevant frameworks and legislation. If your study is chosen, you will be notified in writing not less than two weeks prior to the required submission date of documentation.

May I take this opportunity to wish you well with your project. If you have any questions or I can be of any further assistance to you, please do not hesitate to contact me.

Yours sincerely

Medical and Midwifery perceptions of the Hospital at Night (H@N) in an NHS Hospital, Ref:

II Issues related to 'Being insider researcher'

**II (a): Invitation to Participate in the Hospital at Night (Hospital@Night)
Project**

Title of study: Medical and Midwifery Staff perceptions of the Hospital at Night
in an NHS Hospital (This was the long title)

Are you?

- **Permanent staff (Midwife or Medical)?** (SHOs not included)
- **Worked nights in the Anaesthetics, Obstetrics or Paediatrics for one year or more**

If you are, then you can participate in an exploratory study of the H@N system.

- **Managers too are welcome.**
- **Places on this study are limited, so make contact with research team soon.**

Please contact:

H.S.Mulenga

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

II (b): Interview schedule

This is an agenda of areas for discussion at the outset of the study. As outlined in the proposal this agenda will develop according to data generated.

Opening questions:

1. Can you tell me about when you started working in H@N system?
2. Can you tell me a little about your role?
3. How is this different to other roles you have had?
4. Tell me about the challenges and opportunities you believe the service offers from your experience
5. Further questions follow on derived from emerging theory grounded in data.

II (c): Consent form

(Form to be on headed paper)

Centre Number:

Study Number:

CONSENT FORM

Title of Project: Medical and Midwifery Staff perceptions of the Hospital at Night in an NHS Hospital

Name of researcher: H.S. MULENGA

1. I confirm that I have read and understand the information sheet dated 11.07.2008 Version,II for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

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

3. I agree to take part in the above study.

Name of Patient Date Signature

Name of Person taking consent Date Signature

When completed, 1 for participant; for researcher site file; 1 (original) to be kept separately in R and Audit.

II (d): Informed consent (NRES, 2007)

Title of study: Medical and Midwifery Staff perceptions of the Hospital at Night in an NHS Hospital

Information sheet for the H@N project; Doctorate Research thesis:

Dear colleague,

Introduction: I am Henry Stokes Mulenga, a professional doctorate student at Sheffield Hallam University. You may have met me in my job as [REDACTED].

I would like to invite you as one of my senior colleagues who have demonstrated an interest in both teaching and service improvement to participate in a research project about the experiences of working in the Hospital at Night (Hospital@Night) system.

Purpose: We are particularly interested in studying the Hospital@Night and assessing its impact inter-professional working and learning at [REDACTED]. You are being asked because you work in the Hospital@Night system

Scope: Your participation will include being interviewed on at least two occasions and at most four occasions for 45 minutes. You will also participate in a process audit of Hospital@Night with nine other colleagues for no more than 2 hours per session.

Methods: The research method is interviews, which will be unstructured, informal interviews that are aimed at seeking your perceptions and perspectives on working and learning in the Hospital@Night system. Interviews will take place in your work place or the Postgraduate Education Centre. I plan to use the afternoons we meet for Peri-natal Mortality meeting for Group work.

Transcription service: We shall plan to use the HyperRESEARCH / TRANSCRIBER soft ware to transcribe our data within the hospital. In case this is not up and running by the time of interviews, we may employ a transcription service outside the hospital. I shall then return the transcribed interview for you to make any changes. You have the right to withdraw from the study before Dec 2008. After that I would have started writing the thesis.

Stake holders: Although the study will be shared with the Sheffield Hallam University and [REDACTED]; the decision to study the Hospital@Night was a personal decision. The thesis will be published in hard copy and will be available at the libraries of the two institutions.

Confidentiality and anonymity: Although it is not possible to be entirely watertight with confidentiality, every transcript will be codified so that no one experiences unexpected exposure to others. There is a possibility that with HyperTRANSCRIBER, we might not use transcription services but until that is in place, recordings will be sent to the transcription service. Principal investigator will code the transcribed text. Apart from researcher, the transcript will only be recognisable to the interviewee.

Thank you, Henry Stokes Mulenga (Signed)..... **Version II (11.07.2008)**

Please sign below if you are willing to participate in the research project outlined above.

Signature..... Print name.....Date.....

II (e): Transcribers confidentiality agreement

Study Title: Medical and Midwifery Staff perceptions of the Hospital at Night in an NHS Hospital

I, the Transcriber, agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g. tapes, transcripts) with anyone other than the researcher.
2. Keep all research information in any form or format (e.g. tapes, transcripts) secure while it is in my possession.
3. Return all research information in any form or format (e.g. tapes, transcripts) to the researcher when I have completed the research tasks.
4. After consulting with the researcher, erase or destroy all research information in any form or format regarding this research project that is not returnable to the researcher (e.g. information stored on computer hard drive).

Research Transcriber

.....
Name

.....
Signature

.....
Date

Researcher

.....
Name

.....
Signature

.....
Date

Version II (11.07.2008)

II (f): Confidentiality: Storing and analysing data

Confidentiality: At [REDACTED] there is a clear policy on protecting informants. The IT governance manager will be contacted.

Anonymity: No one will be identifiable from the transcripts. The codes will be kept away from analysis.

Security: Paper information will be kept in a locked cabinet. All access to computer information will be controlled by a secure password.

Publication: This is one of the very few pieces of qualitative research done by professionals about their work environment. The results are bound to attract serious mainstream journals.

Data lifetime: Data will be kept in accordance with data protection act.

III. The interview and technology used

III (a): Running the interview

In-depth interview:

Room: A quiet room was provided for the interview. A notice on the door warned non-participants that not to disturb.

III (b) Olympus DS 50 Digital Voice Recorder

The DS 50 recorder can do over 275 hours of recording. It has an easy to use operating system. Since the reception systems on the recorder were so good, it was possible to record the interview without interrupting the conversation.

Preamble: As soon as participant and researcher settled in the interview room but before signing consent, after the interviewee had seen the digital recorder, with their permission it was then switched on. The participant confirmed that they were signing the consent. The machine captured the confirmation and the interview started.

III (c) Transcribing service

The plan was to use the HyperRESEARCH/TRANSCRIBER software to transcribe data. However, it was not possible to train the transcriber in the use of Hyper Research/Transcriber. Instead, the recording from Olympus DS-50 Digital voice recorder was transcribed in house using headphones and a pedal connected to the PC (Kvale & Brinkman, 2009). After proof reading, the researcher sent the interview to the interviewee for participant verification and authentication. On return and after appropriate formatting, the researcher imported the interview into the Hyper Research platform for analysis.

III (d) HyperResearch / HyperTranscriber

HyperResearch is a versatile programme that is available for either Windows or Macintosh platform. It was possible to start coding as soon as the transcript was ready.

III (e) Dragon naturally speaking

The software is a speech recognition system under licence from Nuance. Over the course of the study, the system has developed from Dragon 10 to Dragon 12. Dragon 12 is more precise. Dragon 10 was good because of its imprecision; the researcher went over and corrected memos written by the voice recognition system. In making corrections, the analyst re-examined the data, further sensitising researcher to emerging theoretical concepts.

IV. GT tools used to enhance theory building in analysis

IV (a) Initial coding

After initial coding of the interviews, the coding frequency yielded the following codes

Supporting clinical teams x12

Doing traditional work X 13

Doing non-traditional work x 13

Learning through the professional route x 16

Supporting each other X 16

Managing clinical risk X 19

Taking responsibility X 28

Learning through experience X 30

IV (b) Memo writing

A frequent phrase during interviews was that professionals felt that they needed to take responsibility. If words relating to or suggesting responsibility had emerged from initial coding of all interviews with a frequency of 28; then 'responsibility' meant different things to different people. Here is the initial exploration of responsibility.

The time now is 1057 on 10 January 2010

I want to explore this idea of responsibility further and DS500002 shows us what it means to take responsibility. This is a property of responsibility ' *The night is a very mixed bag plus seeing my patients discharged when I'm on my own without them seeing the doctor, if I can, if I'm able to have that time. So that'll actually give the doctor some more time on the department.*

It seems that when people take on responsibility at night, there are several things that are happening and the night practitioner feels as if they are pulling to out problems out of a bag. This indicates that although there is a system, it is also all clear that much of what happens that night cannot be anticipated. Taking responsibility also reveals and other property which is

that the more experienced take the lead. DS 500002 point out that

'it is not balanced because at the end of the day there is not in our nursing staff to be ultimately in charge of the Department, you might be taken away. If we have a resus and am on with to which you nurses, at It's not balanced because at the end of the day....erm....there's not enough nursing staff for you to be ultimately in charge of the department, you must be taken away. If we have a resus and I'm on with two junior nurses, I can't rely for a junior nurse to go into resus, so I'm actually from taken away from other duties..'

I think this is feeling of helplessness is experienced by others and DS500003 point out a way forward and suggests a system of organising work *'Erm.....Being able to organise there own.....obviously being capable of doing the work and knowing how the hospital works as in, you know, who to call if you need a CT scan and erm....and being able or organise your own work list.*

But this also means being be able to deal with conflicting demands for example DS500004 points out that at times taking responsibility involves dealing with conflicting demands *'erm.....but the paediatric side's busy, they find it very difficult and we're waiting for the SHO to start an emergency caesarean section. We haven't got the midwifery staff available to assist with the section because there's only two midwives on the night shift on the labour ward. The Band 7 coordinator and a Band 6 midwife. So that can cause a delay at times and also if we need support in resuscitating a baby, the SHO is busy, scrubbed with the registrar performing the section. So then we have to call the registrar paediatrician to come and resuscitate the baby. Erm...Often it isn't a problem because we do have midwives that are NALS trained so we can get on and successfully resuscitate a baby and just call the registrar if we need that extra assistance. Erm, but not all the midwives are NALS trained and the senior midwife may be busy in another room with another lady and no be available to do that. So there are times where it can be demanding and it can be challenging and ultimately, as a midwife I do feel that we're expected to do more and more and not just care for women in labour and I need to be in the room caring for a woman in labour but I also feel that the paediatric SHO, gynae SHO is scrubbed in theatre so I'm also taking that role on as well, at night.*

So there is no knowing what will happen next. It's almost like being at an airport with several craft landing at the same time.

Methodological memo I feel now that our farm really taken on this idea of responsibility and it's now possible to begin to draw some diagrams concerning the organisation of the hospital at night. I think in this exercise we have compared three interviews from three professionals from different parts of the hospital. We are now able to see through comparative analysis how the hospital is one sees to operating very similar model with quite a degree of variation. And and the fact that variations has emerged within the data is joyful.

So taking responsibility also means not being entirely in control. One gets the sense of someone constantly moving from one task to the next task. DS 500002, further developed this idea of taking responsibility. It seems as if the responsibility she was talking about is a reorganisation of the process of health care delivery. For example she says, *'inform them, a bit like a throw-back from the old days when a nurse was sort of in charge and there was more.....you had the nurse. You had your sister.....your sister, your nurse, your auxiliary and then you had your non-medical staff and they had nothing at all to do with any type of nursing and so the nurse was ultimately in charge and you do still see that to this day. Not so much.*

So you're we begin to get the feeling, that the decision-making process is in the hands of the sister. It is it is interesting that the informant can draw similarities between an old model and

what is happening now. Interestingly it seems that responsibility is identifiable by dress. We are informed that *'I think wearing a navy uniform does have an impact.'* It seems that responsibility is a Mark of distinction in the hospital and dress displays that. It also means that the best get more responsibility indicating that they have better professional credentials or all should I be asking the question? I think this is made even more explicit by DS 500003 when she relates responsibility with with pay structure or banding *'It's meant some people have been banded how they expected to be and the majority of people have been banded lower than what they've expected to be with no prospect of increasing their pay banding. So there's a lot of people on Band 5, whereas they would've been the senior II level.'*

So responsibility can be given and so can be taken away.

This view also all indicates that professional promotion seems to be arbitrary. This idea was further explored with with other participants and to do justice to this aspect fair treatment will be memoed and separately.

Methodological memo

at the moment, I am navigating my codes folder and trying to find all references to responsibility. This way buyable to continue building properties and directions, making comparisons and drawing relationships. I do hope that a story line concerning responsibility in the hospital at night will become more vivid.

Today is 11 January 2010 and my memo is on gaining and losing responsibility

And I interesting aspect are here is that responsibility can be quite defuse for example DS 500004 points out that *'the anaesthetist cover as ITU you Coverdell hospital and the other cases in Theatre, any emergencies and Theatre'*. From here we gather that DS500004 is experiencing loss of responsibility concerning the whereabouts of the anaesthetist. So although she might have responsibility, she also knows that she has no control over the deployment of the staff....*well, we're piggy-in-the-middle as midwives really.*

IV (c) Diagramming

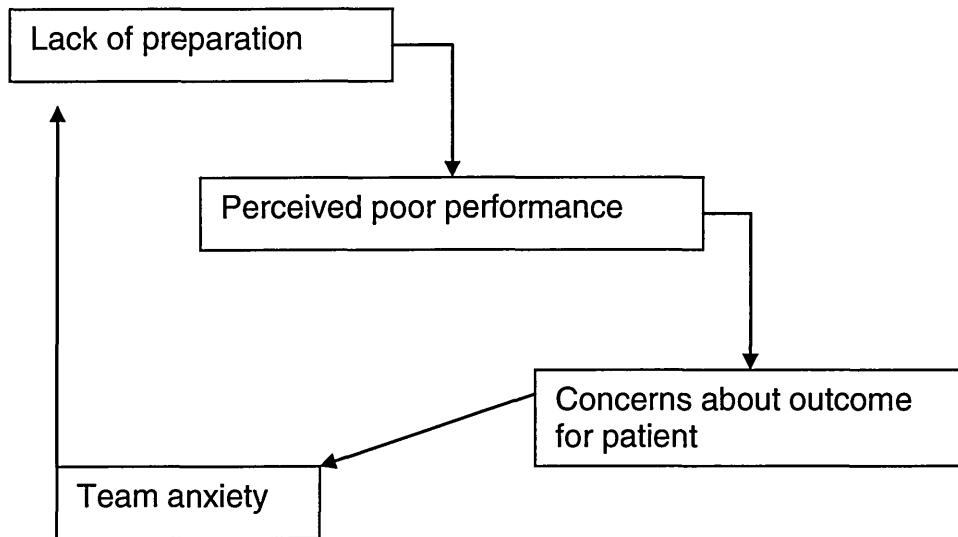
Diagrams are an important tool in the GT tool kit. It involves seeing auditory material and establishing connections. As part of the development of the major category 'Being scared at night', the subcategory 'sensing choas' emerged from what one doctor described as pager every five minutes

Pager every five minutes

DS 500026 txt 40490, 40707, narrated a story of another professional as follows *'Erm... she said it is very, very stressful. The bleep goes on and one every five minutes... And after a couple of months, she left, for what reasons I don't know but she left.'* We got another sense of 'sensing chaos' when we looked elsewhere away from the acute situation.

It seemed that may be what the professional was reporting had something to do with lack of preparation. Lack of preparation would lead to perceived poor performance and may be concerns about outcomes.

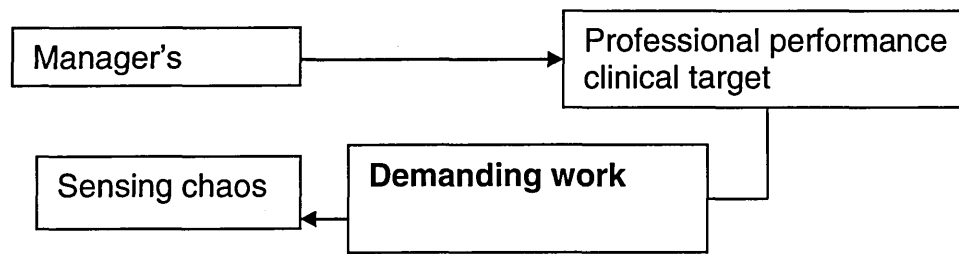
Sensing chaos



Managerial targets

Participant DS500017 at 10937-11224 reports that *'A year ago. They're just asking too much erm and each manager, they got their own area to protect, their corner to protect and they just hammer secretaries, hammer us to achieve what is relevant to their area for getting that, there are other managers demanding the same of the same person.* It seems that working in the Obstetric-Paediatric is demanding work.

Demanding work



Could it be that demanding work within each professional leads to a 'sensing chaos', which in turn leads managers and professionals to develop an agenda to control the chaos?

From participant DS 500003 at 1836, 2096, we get a feel of how the 'sensing chaos' generates anxiety and experience of personal stress. *'It makes it very variable. It can make it very stressful. It can give us a lot of demand at one particular time and then at another time we might be not doing an awful lot. So we've got to fill our time by cleaning or just routine administration activities'*.

We wondered how this unevenness of professional work life is controlled. We looked at how the organisation maintains team working. In the next section, we look at the use of communication training as a way of maintaining teams.

Axial coding

Coding that treats a category as an axis around which the analyst the analyst delineates relationships and specifies the dimensions of this category. A major purpose of axial coding is to bring the data back together again into a coherent whole after the researcher has fractured them through line by line coding.

Categories

The analytic step into grounded theory of selecting certain codes as having overriding significance or abstracting common themes and patterns in several codes into an analytic concept. As the researcher categorises, he or she raises the conceptual level of the analysis from a description to a more abstract theoretical level. The researcher then tries to define the properties of the category, the conditions under which it is operative, the conditions under which it changes, and its relation to other categories. Grounded theorists make their most significant theoretical categories into the concepts of their theory.

Coding

The process of defining what the data are about. Unlike quantitative researchers, who apply preconceived categories or codes to the data, grounded theorist creates qualitative codes by defining what he or she sees in the data. Thus the codes are emergent. Thus the codes are emergent- they

develop as the researcher studies his or her data. The coding process may take the researcher to unforeseen areas and research questions. Grounded theory proponents follow such leads; they do not pursue previously designed research that lead to dead-ends.

Constructivism

A social scientific perspective that addresses how realities are made. The perspective assumes that people, including researchers, construct the realities in which they participate. Constructivist inquiry starts with the experience and asks how members construct it. The best of their ability, constructivists enter the phenomenon, gain multiple views of it, and locate it in the web of connections and constraints. Constructivists acknowledge that their interpretation of the studied phenomenon is itself a construction.

Grounded theory

A method of conducting qualitative that focuses on creating conceptual frameworks or theories through building inductive analysis from data. Hence, the analytic categories are directly 'grounded' in the data. The method favours analysis over description, fresh categories over preconceived ideas and extant theories, and systematically focused sequential data collection over large initial samples. The method is distinguishable since it involves the researcher in data analysis while collecting data. We use this analysis to inform and shape further data collection. Thus the sharp distinction between

data collection and analysis phases of traditional research is intentionally blurred in grounded theory studies.

Memo writing

Memo writing is the pivotal intermediate step in grounded theory between data collection and writing drafts of papers. When grounded theorists write their memos, they stop and analyse their ideas about their codes and emerging categories in whatever way that occurs to them. Memo writing is a crucial method in grounded theory because it prompts researchers to analyse their data and to develop their codes into categories early in the research process. Writing successful memos keeps researchers involved in the analysis and helps them to increase the level of abstraction of their ideas.

Objectivist grounded theory

A grounded theory approach in which the researcher takes the role of a dispassionate, neutral observer who remains separate from the research participants, analyses their world as an outside expert, treats research relationships and representation of participants as unproblematic. Objectivist grounded theory is a form of positivist qualitative research and thus subscribes to many of the assumptions and logic of the positivist tradition.

Reflexivity

The researcher's scrutiny of his or her research experience, decisions, and interpretations in ways that bring the researcher into the process and allow the reader to assess how and to what extent the researcher's interests,

positions, and assumptions influenced inquiry. A reflexive stance informs how the researcher conducts his or her research, relates to the research participants, and represents them in written reports.

Social constructionism

This is a theoretical perspective that assumes that people create social reality (ies) through individual and collective actions. Rather than seeing the world as a given, constructionists ask, how is it accomplished? Thus instead of assuming realities in an external world-including global structures and local cultures-social constructionists study what people at a particular time and place take as real, how they construct their views and actions, when different constructions arise, whose constructions become taken as definitive, and how that process ensues. Symbolic interactionism is a constructionist perspective because it assumes that meanings and obdurate realities are the product of collective processes.

Theoretical sampling

A type of grounded theory sampling in which the researcher aims to develop the properties of his or her developing categories or theory, not to sample randomly selected populations or to sample representative distributions of a particular population. When engaging in theoretical sampling, the researcher seeks people, events, or information to illuminate and define the boundaries and relevance of the categories. Because the purpose of theoretical sampling is to sample to develop the theoretical categories, conducting it can take the researcher across substantive areas.

Theoretical saturation

Is a the point at which gathering more data about a theoretical category reveals no new properties nor yields any further theoretical insights about the emerging grounded theory.

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