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**Teamwork and interprofessional networks in stroke care:  
towards an understanding of joint working practice.**

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## **Abstract**

This study is set in the context of government-led changes to working practice for health professionals in the UK. Policy documents relating to the National Health Service advocate that care should be increasingly delivered by joint working, however an examination of the literature suggests that this concept is currently unclear.

This investigation considers one particular area of healthcare, the delivery of stroke services, where provision has been reorganised into specialist stroke units, and where teamworking is being associated with improved patient outcomes. The study aimed to analyse the meaning of joint working by exploring the elements of commonly-used terms such as teamworking and interprofessional working, seeking a greater understanding of the process of joint working by exploring staff and service user perspectives. A qualitative methodology was employed, using a multiple case study approach and data generation methods of fieldwork observation, interviews and visual imagery. Three case studies were carried out, examining services at different points along a stroke care pathway.

The findings describe a framework of joint working practice in healthcare consisting of twenty-six elements within domains relating to: the organisation; team process; the individual; professionalism; communication, and the service user. It is proposed that by examining these elements, different types of practice can be distinguished, which can be termed teamworking and interprofessional network working. The investigation suggests that these different types of joint working need to be fully considered in evaluations of practice, if there is to be a greater understanding of links between changing staff working practices and patient care. It also highlights the importance of

the interrelationship between elements identified, suggesting that attention to single aspects of practice without considering the individuals and context is unlikely to achieve the changes sought.

The central purpose of the investigation was to understand joint working practice, however the findings also have application to the education of healthcare students. The study describes a proposed transition from network working to teamworking associated with experience, discusses the importance of professionalism, and considers changing professional role. Whilst focussing on professional perspectives, the work offers suggestions for further work on service user involvement, and also considers how the findings may offer additional insights into perceived benefits and losses associated with joint working.

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## **1. BACKGROUND TO THE STUDY**

This study is situated within the context of considerable change to the provision of healthcare in the UK. Reconfiguration and reformulating of services is not new in the National Health Service, but it is suggested, that the changes being proposed to staff working practices are substantial and have the potential for considerable influence on patient care.

The call for change to working patterns of healthcare staff has become a resounding one over the last few years. Government policy has supported an explosion of policy documents in the new millennium, with the aim of making fundamental changes to the way that staff in the National Health Service are trained, employed, developed by further training, and work together.

The new century saw the issuing of The NHS Plan: A Plan for Investment, A Plan for Reform (Department of Health, 2000a), The NHS Workforce Strategy (DOH, 2000c), and Meeting the Challenge (DOH, 2000b). The NHS Plan outlined the biggest changes in the National Health Service since it was formed in 1948, focussing on removing geographical inequalities, improving service standards and increasing patient choice. The NHS Improvement Plan: putting people at the heart of public services (DOH, 2004) continues this ten-year process of reform. This “modernisation” of the NHS has also included the Working Time Directive, laying down new working hours for doctors, and Agenda for Change, which makes fundamental changes to staff pay as part of the “Changing Workforce Programme”.

These government-led changes have been heightened by a number of high profile investigations into failures in health and social care provision, such as the Bristol Heart Surgery Inquiry (Bristol Royal Infirmary, 2001) and the Victoria Climbié Inquiry (Lord Laming/Great Britain Home Office, 2003). These extensive investigations into care delivery concluded that there needs to be a considerable improvement in the way that staff and agencies work together if future failures in care are to be avoided. The reports from these inquiries have thus been significant in driving the call for more joint working.

In a discussion of health policies during the second half of the twentieth century, Leathard (2003a) identifies the NHS Plan (DoH, 2000a) and the setting up of the NHS Modernisation Agency in 2001 as key drivers in the “avalanche of change” (Leathard 2003a, p.30) in healthcare delivery. Throughout these published policy documents, are references to the need for service delivery to be enhanced by “joint working”, by staff working “in teams” and working “interprofessionally”; this is of specific importance to this study.

The NHS Plan (DOH, 2000a) makes reference to the need to remove “old fashioned demarcations between staff and services” and to increase “flexible teamworking between different clinical professionals” (Section 9.2). It also talks of “reshaping care around the patient” (Section 9.16). The NHS Improvement Plan (2004) continues these themes, outlining the need for “more staff working differently” (Chapter 6), with the need for “new roles in the service” (6.5), to remove “rigid demarcations” and “unnecessary barriers” (6.4). The document

predicts that “changing skill mix” will “deliver care more efficiently and increase capacity” (6.7).

The introduction of National Service Frameworks (of particular significance for this study: the NSF for Older People, Standard Five: Stroke DOH, 2001) have been forerunners in increasing moves to focus service provision around patient care groups. This emphasis on service users being at the centre of service provision has been core to the changes in staff working practice outlined above. It is argued that by focussing service delivery around patient needs, the emphasis has moved from individual profession boundaries, to services being provided by the person most competent to perform the function required. In *Creating a Patient-led NHS* (Department of Health, 2005), there is reference to the need for changes in culture and also systems for the NHS to become truly patient led.

This shifting of boundaries has been the focus of legislation relating to role redesign led by the NHS Modernisation Agency and Changing Workforce Programme. Agenda for Change has introduced a common pay scale for healthcare staff (DOH, 2004), linked to a Knowledge and Skills framework (DOH, 2004). The Skills for Health organisation has been developed, whose remit has been to look at competencies based around patient care groups rather than professional boundaries. This organisation, which is part of the government “Changing Workforce Programme” takes a UK-wide lead for the development and use of integrated competency frameworks across healthcare, developing national occupational standards and national workforce competences. These both “describe what needs to happen in the workplace - not what people are like”

(Skills for Health, 2006), and are intended to be used for job design, individual and team development, career planning and appraisal, alongside the Knowledge and Skills Framework. All these legislative drivers have the potential to lead to significant change in staff working practices.

Thus, the National Health Service in the UK is undergoing radical change, with healthcare redesign aiming to place the patient at the centre, with staff working together to provide the best service for that patient. But in this heady rush to “modernise”, just how much is known about joint working practice, practice that is described variously in policy documents using terms such as “teamworking” and “interprofessional working”? For example, do the staff who are being required to lead or participate in these changes understand what these forms of joint working require? Also, most importantly of all, if change in working practice is happening, then what might be the impact on care delivery and outcomes? It is these questions that prompted this study, and they will be further considered in the following review of the literature.

This thesis presents the findings from three in-depth case studies which investigated joint working practice amongst staff delivering care for patients who have suffered a stroke in the UK National Health Service. The work aimed to explore these government-led changes to practice, with a view to gaining a clearer understanding of what these changes might mean for staff employed to deliver the services, and for patient care.

## **2. LITERATURE REVIEW**

This review continues themes identified in the introductory section, exploring the issues regarding the proposed changes in service delivery in healthcare in more depth. The background section described the drivers for healthcare delivery to be improved by joint working amongst staff, and this concept of staff working together will be considered in depth. The review will provide an overview of published work that has been used to inform the study, and although focussing on the delivery of stroke services in particular; it will draw upon the wider literature regarding joint working practice from across healthcare. It will also highlight material of particular relevance to the work, from amongst the vast literature on staff joint working practice in fields such as business and management. The section will begin by discussing the significant changes to working practice that have been apparent in stroke service delivery over the last years, and the moves to encourage joint working.

### **2.1 WORKING PRACTICE IN STROKE CARE**

The clinical area of stroke has been at the forefront of changed working practice within healthcare. This may be because stroke disease is a significant cause of death, disability and loss of quality of life, and has major impact on patients and their families (Rudd and Pearson, 2000). Also, stroke is of significance to healthcare services, as it is the single biggest cause of severe disability and third most common cause of death in the UK (Department of Health, 2001). The National Service Framework for Older People (Department of Health, 2001) also emphasises the economic significance of stroke care, highlighting the substantial

proportion of National Health Service and social services resource that is devoted to care of people who have had a stroke.

The National Sentinel Stroke Audits (Royal College of Physicians, 1998, 2000, 2002a, 2004a) have documented this changing working practice in stroke over the last years, with increasing organisation of stroke care into specialist units, and the increasing introduction of joint working with “teams of different professionals working together” (Royal College of Physicians, 2004a). The National Clinical Guidelines for Stroke (Royal College of Physicians, 2004b) emphasise that effective stroke rehabilitation requires the co-ordinated skills of a wide range of different professionals, which should be provided in a stroke unit by a “specialist stroke team”. Research evidence has underpinned this move towards stroke care being provided in specialist units (Royal College of Physicians 2002a, 2004a, 2002b, 2004b), with reported benefits of specialist unit care including reduced mortality, reduced disability, reduced recurrence, faster recovery and less distress (Royal College of Physicians, 2004b).

The majority of studies reporting the benefits of specialist stroke units have compared care provided in units with that provided in general medical wards. Of special significance for this investigation has been the tendency for these studies to consider that “teamworking” is a contributory factor in any improved outcomes at the specialist stroke units reported. Sulch et al. (2000) in a review of the area for example concluded, “much of the proven effectiveness of stroke rehabilitation units has been attributed to interdisciplinary teamwork”. In the UK highly regarded and influential work such as the Multidisciplinary Stroke Audit

(Royal College of Physicians 2002b), the National Clinical Guidelines for Stroke (Royal College of Physicians, 2004b), and The National Sentinel Stroke Audit (2004a), all refer to “teamwork” as being a core element in improved patient outcomes seen at specialist units.

The benefit of changing care provision in stroke from general wards to specialist stroke units is thus supported by the research above, and this research evidence has underpinned government policy requiring that specialist stroke unit care must be available in all regions (National Service Framework for Older People, DOH, 2001). However, as this review will highlight, although improved outcomes have been demonstrated following reconfiguration of services into stroke units, it remains unclear exactly which aspects of specialist stroke unit care lead to which improved outcomes, with research evidence only able to “speculate on how stroke unit care could reduce disability after stroke” (Royal College of Physicians, 2002b).

The studies mentioned above suggest that joint working or “teamworking” is a contributory factor in improved outcomes, but as this review of the literature will suggest, there is currently a lack of evidence to establish a clear link between type of staff working practice and care outcome. Studies have emphasised the complexity of stroke care which makes establishing care-outcome links problematic, with a need for research to achieve a greater understanding of complex processes. Smits et al. (2003) for example reviewed available research in North America and concluded that “there is no consensus on the characteristics of effective (rehabilitation) teams”. Similarly McNaughton et al.

(2003) also concluded from their study of working practice in 3 stroke units in New Zealand that “the link between stroke care process and outcome is not straightforward”.

Work by Strasser et al. (2005) further highlights the complexity of identifying joint working as a major contributing factor in improved stroke care. This large-scale study reported complex results when trying to establish a link between working practice and patient outcomes at forty-six specialist stroke units in North America. Rather than establishing clear links between joint working practice and outcome, this research associated different aspects of working practice with different outcomes. The authors used scales of “team relationships” and “team actions” completed by staff to measure joint working practice between staff at the units investigated. They reported that units that were more structured and made greater use of outcomes data achieved better patient motor functioning outcomes. Also, that units that had less sense of themselves as “a team” had longer lengths of stay. This study also found that other factors such as innovation, time devoted to communication, relationships between staff, and leadership were not associated with improved outcomes. The conclusion reached by the authors highlights the current lack of clarity regarding the understanding of joint working practice and care outcomes in stroke, with the statement that “rehabilitation delivered by a team is indeed complex”.

In a discussion of the need for evidence that “rehabilitation works”, Wade (2002) calls for more research to examine the rehabilitation process. He also highlights the complexity of joint working, outlining six important aspects of rehabilitation



teams as being: the expertise of staff; a structured approach; patient centred concerns; working as a team; exploring several interventions; and continued involvement. In a second paper (Wade, 2003) he continues this theme of complexity, describing the difficulty in describing rehabilitation interventions, and the impact of patient centred goal setting on the process.

Kalra et al. (2000) also provide evidence of the multiple factors in stroke rehabilitation. Their randomised control trial in the UK compared patient care on a stroke unit, on a general ward with specialist stroke care support, and domiciliary stroke care. They concluded that the stroke unit was the most effective type of care (in terms of reduced mortality and levels of dependence), and of particular interest for this study was their finding that staff in a stroke unit were able to provide more hours of therapy rehabilitation and also to provide specialist twenty-four hour care, which the staff in the other settings were unable to equal. These results therefore suggest that it is the greater amount of rehabilitation provided in a stroke unit that may be the most significant factor in any improved outcomes.

A further potentially important factor which may distinguish stroke unit care from care at other locations is highlighted by Davidson et al. (2005) who argue that specifically it is the “skilled and knowledgeable nurses that are the key to the success of stroke units”. This randomised control study which compared treatment outcomes in patients following additional nurse training versus no additional training of nurses in a stroke unit, suggests that whilst additional nurse input did not improve outcomes, that improvements seen in stroke units may be

linked to greater skills and knowledge amongst staff in a stroke unit versus staff in other locations. This therefore casts doubt on a suggested link between joint working and improved stroke care.

As will be highlighted later, as healthcare is becoming increasingly complex, it may be that the potential for staff to become “expert” with a single client group such as in specialist stroke unit care may be of significance when evaluating service delivery and outcomes. It may be that staff in other environments, such as on general wards will be dealing with a wide range of client groups, and are thus potentially less able to develop specialist knowledge and skills in a single area, specialist knowledge and skills which could potentially lead to the improved outcomes reported in stroke units.

Finally, in this discussion regarding the association between changed working practice and patient outcomes in stroke; an examination of service user reports of care received, also suggests that there may be complex multiple factors contributing to the improved stroke unit outcomes. A UK national survey of patients’ experiences of stroke (Commission for Healthcare Audit and Inspection, 2004) reported that people who had stayed on a specialist unit for stroke said that they had been more involved in decisions about the best medicine for them, compared with those who had stayed on other wards. The 2006 follow-up survey (Commission for Healthcare Audit and Inspection, 2006) similarly reported more positive experiences for stroke patients who had stayed on specialist units compared with other wards. The report’s authors attribute this difference to “improved planning for discharge and a better understanding of the

needs of patients who have had a stroke”. This evidence further suggests that to consider joint working in stroke units as a key factor in improved outcomes may not be justified, and it suggests that successful joint working practice may have multiple facets, which need to be fully considered.

The aspects of successful care reported by service users seem to relate variously to the specialist nature of the units, or that the needs of patients are better understood in units, or that there is more time and resource available for patients and family in units, rather than being related to a particular form of staff working practice. As will be discussed later in this review however, the conclusion that patient needs are better understood in a stroke unit could be related to these staff sharing information and having a more “patient-centred” view of care. As highlighted in the background to the study section, this patient-centred view forms part of the drive to change staff working practices and thus may be significant. An alternative view which is equally plausible and will also be discussed later, is that these factors are related less to working practice, but instead relate to a shift in staff perspective from a medical model view of care to a social or rehabilitative model in stroke units compared to other hospital wards.

In stroke services a typical patient pathway consists of firstly, admission to an in-patient hospital ward setting where patients are treated until medically stable. This initial care is then typically followed by transfer to a specialist rehabilitation unit attached to a hospital, and then finally by transfer to a community (outside a hospital) setting where care continues to completion.

In the literature it is noticeable that the majority of studies investigating links between working practice and patient outcomes have considered only hospital-provided services. This may be as many of these studies have been located outside of the UK, such as in North America where healthcare systems operate differently, or that hospital-based services are the most widely available. The National Sentinel Audit (Royal College of Physicians, 2004a) noted that only 25% of services had a community stroke service with a lack of follow up care once a patient had been discharged from hospital. One of the few studies investigating community services (Kalra et al, 2000) recommended that following early care on stroke units, all patients should receive specialised rehabilitation at home. Kennedy (2006) also highlights the need for focus on areas of healthcare beyond the acute sector, asserting that in the UK more than 90% of healthcare provision is provided at the level of general practice and community care.

The drive to changed working practice has included not only hospital services and the move towards joint working in stroke units, but also community services which are similarly being required by government legislation to change staff working practice to deliver services by staff “working jointly”, “interprofessionally” and “in teams” (Department of Health, 2000a, Department of Health, 2001). However, there has been little research considering how these changes might impact on practice for stroke care in a community context.

In the UK there has been a strategy of shifting stroke care from primary to secondary care (Department of Health, 1997) with increasing targets to reduce

in-patient stays, and introduction of “intermediate care” to reduce hospital re-admission. This may be linked to economic considerations, as in-patient care is more costly. Patel et al. (2004) for example found that stroke unit care was the most expensive, and domiciliary care was the cheapest method of providing care following stroke. It has been reported that there are clinical benefits as well as economic (Royal College of Physicians, 2006) from this shift in care from hospital to community, although research is needed to clarify what these benefits may be.

This move from primary to community care has its critics however. The National Sentinel Stroke Audit Phase One Organisational Audit (Royal College of Physicians, 2006) notes that while there is evidence to support earlier discharge from acute units in terms of clinical benefit and resources, there has been a failure to provide specialist community stroke services. Of particular significance to this study is also the key finding that few services “appear to be truly multidisciplinary” and that there is a need for their quality to be monitored to ensure that they are “really fit for purpose”. (Royal College of Physicians, 2006, p.10).

Surveys of patient experiences of stroke care also suggest that community stroke care may be less satisfactory. Surveys (Commission for Healthcare Audit and Inspection, 2006, 2004 and Royal College of Physicians, 2006) report that people were less positive about the care they had received since leaving hospital, and can feel “abandoned when leaving hospital” (Royal College of Physicians, 2006). The National Sentinel Audit (Royal College of Physicians, 2006 p.8) concludes

that whilst there has been progress with care provision in stroke units “the concern remains that patients who are not admitted to a stroke unit are receiving second rate care”. However, in a study comparing outpatient versus community care, Lincoln et al. (2004) highlight the importance of measuring a range of outcomes, with their study suggesting that one of the benefits in a community service may be greater emotional support for patients and in particular for carers.

From this initial review of the literature regarding changing working practice in stroke care, it became apparent that there was a considerable lack of clarity regarding links between changed working and the impact on care for this client group, with a need for a greater understanding of the process of care to inform the debate. The benefits of specialist stroke unit care rather than general hospital ward care seem well documented, but the role of changing staff working practice in any improved outcomes seems to be assumed rather than based on research evidence. There was the suggestion for example from some studies that “teamworking” could be associated with improved outcomes, but what exactly this form of working means and how it differs from other types of practice is currently unclear. There also appears to be an emphasis on evaluations of working practice in hospital-provided services at a time when increasingly much of the care in the UK is being provided in a community context.

These initial findings then prompted review of the wider literature on links between staff joint working practice and patient outcomes. This wider review accessed research from other areas of healthcare and also other disciplines,

seeking a greater understanding of, and potential evidence for a link between staff joint working practice and improved outcomes.

## **2.2 LINKS BETWEEN JOINT WORKING AND PATIENT OUTCOMES**

Review of the literature confirms that across the areas of healthcare, evaluations of working practice and outcome, and in particular evaluation regarding the effectiveness of different types of working practice has been poorly researched (McCallin 2001a).

Studies across healthcare contexts have identified two potential links between joint working and improved outcomes: firstly, that staff working together may lead to improved care being provided, and secondly, that working together may lead to improved delivery of services. These will now be considered.

### **i) Improved care**

Hyer et al. (2000) report that “many studies” have demonstrated “team care” to be effective in mental health settings, rehabilitation, and acute care, although fail to specify this work. West (2002) identified a strong association between particular types of working practice in healthcare and reduced mortality. West’s study gathered data on human resource practices in a general hospital context, such as staff training, appraisal systems and linked this to patient mortality. He concluded that joint working and sophisticated appraisal systems led to improved patient care. Whilst establishing a link between working practice and outcome, the study was unable however, to identify which of these factors was the more significant.

Deeter-Schmelz and Kennedy (2003) in a discussion of working practice contend that by employing a “cohesive team structure”, health care organisations will be able to increase quality of patient care and also patient satisfaction, although they report that such a relationship is not well documented. Latella (2000) argues that “multidisciplinary rehabilitation” has benefits to the clients involved, benefits to the healthcare provider, and general benefits to health care, although omits to provide references or evidence for these.

## **ii) Service delivery**

Some researchers have referred to benefits in terms of service delivery rather than improved patient care (for example Wilson and Pirrie 1996, Leathard 1994, Lavin et al. 2001). Hackman (1990) describes the tension in “human service teams” he studied, between working efficiently and working effectively, thus suggesting a potential conflict between service delivery and care outcomes. Davoli and Fine (2004) in a discussion paper on joint working identify that “collaboration promises a more effective means for service delivery through collective decision-making”, suggesting that improved service delivery outcomes from joint working could be associated with more effective decision-making.

It was mentioned earlier that staff in a stroke unit could have increased knowledge and skills from specialisation with one particular client group, which potentially could lead to improved outcomes. Hall and Weaver (2001) support this suggestion, describing the increasing complexity of knowledge and skills in modern healthcare required to provide comprehensive care for patients, which they contend has resulted in increasing specialisation. They argue that this



specialisation means that no one health care professional can meet all the complex needs of patients. Of significance for this study is that potentially this work could suggest that rather than necessarily being a better way of working leading to improved outcomes, joint working is the only way that services can be provided in modern healthcare.

Glasby and Lester (2004) support the argument that joint working may have service benefits, asserting that “it is clear that working in partnership can be more effective than a single agency working in isolation”. Rather than research evidence however, they base their argument on the Audit Commission (1998) who reported benefits of working in partnerships as including “delivering co-ordinated packages”, and “making better uses of resources”. Payne (2000) in a text exploring the meaning of joint working, identifies the reported benefits of joint working to be: a bringing together of skills; sharing of information; continuity of care; and co-ordination, thus benefits predominantly associated with improved service delivery. This “bringing together of skills” benefit also links with the increasing complexity in healthcare argument outline above.

Other benefits to service delivery by joint working have been reported by Carter et al. (2003) and Foskett (2005). Carter et al. sought views from surgeons working in urological services on joint working, and Foskett reports views of joint working from stakeholders involved in a visually impaired service. These studies suggest service delivery benefits including: continuity of care; the use of audit and protocols; enhanced communication and ideas; sharing of knowledge; and a sense of partnership.

This reported work thus suggests that there may be improved outcomes associated with joint working practice, with the possibility that joint working could lead to either improved care or improved service delivery. Much of the work described has been in the form of discussions, with a lack of strong research evidence, particularly in regard to improved care benefits, and it remains problematic to clearly isolate key features of desired joint working practice. In regard to improved service delivery versus improved care, it also remains unclear whether it may be one or other of these outcomes, or both of these that is the more significant.

### **iii) Negative impacts of joint working**

In contrast to these studies identifying beneficial effects of increased joint working, there is also research evidence that contradicts these positive findings, and points to potential negative factors. For example whilst Senior and Swailes (2004) refer to the concept of “synergy” - that groups of people working together produce a whole that is greater than the sum of its parts, in direct contradiction to this, Goleman (1996) asserts that it is not possible for a group to be more than the sum of its parts. West (1994) from extensive study of joint working in industry outlines a phenomenon called “social loafing”, when individuals work less hard when their efforts are combined with others, rather than individually. He reports the significant finding that in many kinds of tasks the performance of people working jointly is about 75 percent as effective as the performance of the aggregate of those individuals working alone.

West also concludes that whilst joint decision-making is generally better than the average member of a group, it is often inferior to that of the most competent individual. He reports his work on brainstorming in business management, which suggests that individuals working alone produce more ideas on aggregate than all the individuals together do. He concludes that the results are due to individuals being less able to put ideas forward when with others – which he terms “production blocking”. Whilst based on work outside of healthcare, decision-making is an important aspect of joint working practice, thus potential negative factors in joint working such as production blocking need to be fully considered.

In another study highlighting potentially negative factors associated with joint working, West and Poulton (1997) discuss the phenomenon of “risky shift”- the tendency for work groups to make more extreme decisions than the average of individual members. Whilst this work was also based outside healthcare settings, the potential impact of different decision-making strategies being associated with joint working practice, could potentially be of significance to healthcare.

Some authors highlight the lack of research evidence to support the tendency for joint working in healthcare to always be considered to lead to better outcomes. Pearson (1997) in an overview of the area reported that a significant challenge remained in identifying outcomes of working practices in healthcare, to explore whether there was truth in the belief that joint working in health care is always a good thing. This view regarding the need for studies is also supported by Mitchell and Crittenden (2000) who argue that currently there is “no research

evidence” to show that joint working has benefits to services or patients. Geddes and Chamberlain (2001) contend that “while research continues to evaluate outcome, relatively little attention has been paid to the variations in structure, methods or working and organisation that exist”. They supported Iliffe (1998), who highlighted a need for descriptive studies of services. Øvretveit (1997a p.68) summarises the current lack of clarity in studies linking joint working practice to outcome, asserting that:

“In some cases it can be better for clients and can increase efficiency. In other cases it can increase costs ... and can result in a worse service”.

This review of evidence concerning links between joint working practice and improved outcomes thus indicated that there was a need for further studies exploring how the current moves towards joint working may impact on service delivery and client care. In stroke care there has been considerable reorganisation of services into specialist units, but the evidence regarding how working practice at these units may contribute to care outcomes remains unclear. If these changes are to be fully evaluated however, and if changed working practice is to be further extended across healthcare it seems vital to seek clarification regarding what practice currently is, and what joint working practice is being required. Geddes and Chamberlain (2001) highlight this point in their finding that the community rehabilitation teams that they studied differed in their target populations, and in the timing and duration of intervention, making it problematic to make comparisons between them. They emphasise that there is a need to more fully recognise the different compositions of teams to achieve different purposes.

### **2.3 THE MEANING OF JOINT WORKING**

Thus far, this literature review has used the term “joint working” to refer to occasions when healthcare staff work with other healthcare staff in the course of providing care for clients. It has briefly been mentioned that government legislation driving the changes in staff working practice has used a variety of terms such as “teamworking” and “interprofessional working” in documents that refer to the need for staff to work differently. In the studies investigating links between joint working practice and outcome describe above, a variety of terms such as “teamworking” have been used to describe joint working practice. The Geddes and Chamberlain (2001) study highlighted that different types of working practice could be identified, linked to different purposes of teamworking. In this section of the thesis the terms used to describe joint working will be considered further, and the considerable debate regarding usage of different terminology highlighted.

A review of the literature concerning terminology used to describe healthcare staff working with other healthcare staff reveals that there are a number of opposing currently-held views regarding definitions. The central debate is regarding whether terms referring to joint working practice can be used interchangeably to refer to a single entity, or whether there are a number of types of working practice that can be described and differentiated by using different terms. This debate is an important one in the search to link working practice to outcome in healthcare, as it may be that the current difficulty in elucidating cause-effect relationships can be explained by there being different types of joint working practice. If there are different types of practice subsumed within

terminology used, it may be that some types of joint working can lead to improved outcomes, whilst others may not.

The introductory section highlighted the specific drivers for this study in terms of UK government-led changes to working practice in the NHS. However, the drive towards more joint working is a “global phenomenon” (Howarth et al. 2006). It is high on the political agenda across Europe (European Public Health Associates, 2002), and is an international need (World Health Organisation, 2004, Dielman, 2004) to create care that is “available, accessible, comprehensive and efficient (Howarth et al. 2006). Goble (2003) associates the need for worldwide joint working with increasing demands on health services as a result of ageing populations and the emergence of complex and infectious diseases. She describes the origins of drivers for creating more collaborative workforces in Europe within Sweden, France and the UK in the 1980s, culminating in the formation of the European Network for the development of Multiprofessional Education. More recently, in 2006 the International Association for Interprofessional Education and Collaborative Practice was formed in response to the worldwide drive for joint working.

In the United States of America the Institute of Medicine (IOM, 2001) recommended an interdisciplinary approach to care, and work from the US military health services has produced an influential teamwork training programme, TeamSTEPPS (Uniformed Services University of the Health Sciences, 2006). In Canada the importance of teamworking in “job readiness” (Gilbert and Bainbridge, 2003) is emphasised, with work on establishing teams

in Primary Health Care in areas such as New Foundland and Labrador (Cummings et al. 2006). In Australia, work by McNair et al. (2005) describes initiatives to develop joint working in rural communities, and authors such as Mickan and Roger (2005) describe a “Healthy Teams Model” being used to evaluate and enhance team performance.

Whilst the move towards joint working seems to be an international phenomena, there seems to be a lack of clarity and consistency in terms used to describe joint working, with a consideration of the literature revealing that different authors’ use of different terms to describe joint working practices has created a “terminological quagmire” (Leathard 1994). The primary terms under consideration for this study are “joint working”, “interprofessional working” and “teamworking” as these are the terms that are used in the UK policy drivers underpinning changes to working practice in stroke care. In addition to these, in the literature some authors use the term interdisciplinary, which is usually taken as synonymous with interprofessional. This difference seems to be related to country of origin, with a notable use of “interdisciplinary” rather than interprofessional in the United States of America and Canada, while “interprofessional” seems to be the preferred term in Europe.

The following positions regarding terms used to describe joint working practice in the literature will now be outlined, and their potential to shed light on care-outcome links considered.

### **i) Different terms to describe a single way of working**

Many authors use the terms “interprofessional” and “teamworking” to describe the same ways of working, or use the terms interchangeably in their work (see for example Bligh and Parsell 1999, Horsburgh et al., 2001). Leathard (2003b) considers that different terminology merely denotes a distinction between concept-based thinking and process-based thinking. Julia and Thompson (1994) combined the terms in a discussion of “interprofessional teams”, suggesting that the primary driver for interprofessional teams is task accomplishment, so the process whereby care is provided has less significance than the end result. Cowley et al. (2002) note that of the 52 policy documents they accessed that relate to health care delivery in the UK, all showed “a surprising lack of consensus in terminology and a paucity of definitions”, in regard to joint working.

Proponents of this position would suggest that joint working, interprofessional working, or team working are all sufficient as terms to describe working practice and attempting to distinguish between them is not significant in endeavouring to elucidate practice-outcome links. This view seems to describe the current level of research evidence in healthcare, with a lack of clarity regarding exactly what working practice is being evaluated. Considering terms to be interchangeable, and failing to distinguish differences in practice however, seems to offer little potential for developing the knowledge base regarding working practice and outcome links, as changes to working practice will be difficult to accurately describe and evaluate, and evidence from different studies will be problematic to compare as like may not be being compared with like.



## **ii) Different terms describe different ways of working**

This study is concerned with examining the meaning of terms describing working practice rather than examining healthcare education, but it is important to note that in the education of health care professionals there are increasing attempts to distinguish two types of joint education. Multidisciplinary is considered to be where professions learn side-by-side, but interprofessional is where professions learn “with from and about each other to improve collaboration in practice” (CAIPE, 1997). Government funding has supported initiatives to extend interprofessional education across the UK, for example in Sheffield (Walsh et al., 2004) and the North East of England (Pearson et al., 2004). In the South West of England a three-year programme (Creating an Interprofessional Workforce) has aimed to modernise the education of health professional students (Hughes and Marsh, 2006). Like the other government funded leading edge sites for interprofessional learning, this programme was time-limited and has now come to an end, however as with the initiative in Sheffield the work has the intention of producing material to continue the interprofessional learning agenda, in the form of a framework of practice for interprofessional learning which is due to be published in June 2007. Barr (2000, 2002) has led the drive to promote and evaluate interprofessional learning and working, under the auspices of the Centre for the Advancement of Interprofessional Education (CAIPE).

This work on interprofessional education has developed the view that “interprofessional” should be viewed as the “gold standard” approach, with authors describing a dynamic interaction between participants (Headrick et al.

1998), the development of new perspectives that are more than the sum of the parts (Pirrie et al. 1998), and the establishment of trust, tolerance and willingness to share responsibility (Nolan, 1995). As the concept of “interprofessional” in education has developed greater significance, there has been a tendency to increase its’ status in practice, by viewing it as a different way of working, something “value added”, which offers greater rewards than other forms of joint working.

Proponents of this view suggest that in interprofessional working there is a dynamic interaction between individuals that is more than other forms of joint working. Rather than just working together there needs to be a shift in professional roles and boundaries, changes Loxley (1997 p.50) called “working across the boundaries, work with difference”. Authors draw a distinction between working alongside (as in multidisciplinary teams) and “working together” (Davies, 2000).

Similarly, Nolan (1995) distinguishes interdisciplinary care from multidisciplinary care describing a blurring of boundaries, trust, tolerance and a willingness to share responsibility in interdisciplinary care. Wilson and Pirrie (1996) contrast “inter” from “multi” in terms of developing a new perspective, integration of procedures and perspectives, learning from and about each other, engaging in shared reflection on practice, surrendering some aspects of own professional role, sharing knowledge, and developing a common understanding. Payne (2000) also contends that different terms describing joint working practice have different implications. He uses “multi” to refer to professionals

collaborating or cooperating within their roles, while “inter” implies adaptations to their role and accompanying adjustments in knowledge and skill bases. D’Amour and Oandson (2005) propose a concept, which they term “interprofessionality”, referring to a separate and unique way of working, the development of cohesive practice among different professionals in order to provide integrated and cohesive healthcare delivery.

Barr (2002) describes interprofessional working as often being taken as synonymous with teamwork, but argues that the concept is “wider”. Helme and Sills (2004) similarly express the view that interprofessional practice is more than good teamwork. Øvretveit (1997b p.2) also emphasises that interprofessional working is a “broader subject than multidisciplinary teamworking”. Parsell and Bligh (1999) in their scale, which evaluates student’s readiness for interprofessional learning, identify teamworking as one element in interprofessional working – together with professional identity and professional role, suggesting that teamwork is only one element within interprofessional working, and that it is interprofessional working that is the more encompassing concept.

However, other authors such as Pethybridge (2004) takes the opposite view, arguing that interprofessional working is a type or subset of teamworking, and it is teamworking that is the broader term. He identifies interdisciplinary teams, multidisciplinary teams and unidisciplinary teams. Larson and Lafasto (1989) also argued that “team” was a broad term with a number of alternative structures and functions possible according to the required objective. Marchington (2000

P.62) similarly identified that there were many types of practice under the “umbrella of teamworking”, thus this being the more comprehensive term.

The authors outlined above thus contend that different types of practice can be identified, but there is dispute regarding the relationship between these different types of practice in regard to whether they are completely separate forms of joint working, or whether certain forms of practice are types or subsets of other forms.

### **iii) A continuum of practice**

An alternative view to the argument that there are different and separate forms of joint practice, is that the different types are points along a continuum. If this is the case, then it is important to examine which type of practice could be considered to be the more advanced or superior form, potentially leading to the better outcomes.

Miller et al. (2001) in a study examining healthcare staff understandings of joint working outline the development of the ability to work with other professionals from students to beginning practitioners. They describe a clear progression from teamworking uni-professionally, to working interprofessionally. Lavin and Ruebling (2001) similarly describe a continuum of practice as “professional autonomy decreased, while shared expertise increased”. Nolan (1995) also outlined a continuum of multidisciplinary to interdisciplinary practice in their study of nurses.

Other authors such as Smith and Preston (1996) support the view that joint working can be considered to be a continuum of practice. They describe a framework developed by Forbes and Fitzsimmons (1993) of holistic interdisciplinary practice across healthcare professions, with interprofessional collaboration at the end of the continuum. Headrick et al. (1998) describe interprofessional working as a spectrum, with loose collaboration at one end and organised work of teams at the other. Their work is significant in highlighting that during a working day health professionals may be required to work at different points on this spectrum. Hall and Weaver (2001) similarly share the view that “health care teams function somewhere along a continuum of degrees of interaction”. Their points along the continuum are described as being: the multidisciplinary team; the interdisciplinary team; and the transdisciplinary team. They argue that further research is needed however, to explore the underlying concepts and epistemology of joint working.

This notion of different joint working practices as a continuum links with work on the development of professional practice, such as the development of the expert practitioner (Dreyfus and Dreyfus 1986 and Schon 1983), which will be further explored in later sections.

The literature regarding current understandings of joint working thus suggests that working practice can be differentiated into different types. If this is the case, it presents the possibility that any evaluations of care outcome need to be linked to these different forms of care delivery, with a need for studies to compare and contrast outcomes resulting from interprofessional working versus those resulting

from teamworking practice. However, the lack of agreement regarding relationships between types of practice, such as which practice is the broader term and which the more specific type, creates difficulties in establishing care-outcome links. Whilst a framework suggesting a continuum of practice links with work from other areas of research into professional practice, the lack of a consensus regarding the ordering of development creates difficulties in establishing which may be considered to be the working practice that is the more developed, or which may produce the better outcomes.

#### **iv) The importance of context**

Some authors have highlighted the effect of different contexts on joint working, emphasising that the context can determine exactly what working practices occur, so different joint working practices are not clearly distinguishable, but have areas of overlap caused by context. Edward (1997) for example emphasises the differences between working practices in primary health care teams and in the community. Boaden and Leaviss (2000) outline four key factors relating to the significance of context – location, orientation, function and member accountability. Sheard and Kakabadse (2002) also emphasise the importance of the working environment in terms of context and infrastructure. This emphasis on the influence of context will be returned to throughout this study.

This argument thus highlights the potential for joint working practices to differ according to the context, with a need for studies to fully consider organisational or contextual influences on care outcomes. It also highlights the complexity of joint working practice, with the possibility that different types of practice have

areas of overlap between them, which may lead to links between care and outcome being more challenging to discern.

This section has presented work from a range of authors who have endeavoured to elucidate the meaning of joint working. It is argued that work to date however, has been unable to sufficiently fulfil the need for clarification in descriptions of working practice. Review of the literature suggests that there are a number of possible ways to describe joint working practice and suggests different relationships between different terms. It may be that different terms describe different ways of working, or alternatively, that different terms are used to describe the same practice. The literature has also highlighted the possibility that joint working practice may differ according to the context, and suggested that interprofessional working and teamworking may be points along a continuum of practice. It is concluded therefore that if links between working practice and outcome in stroke care are to be discerned there is a need for further investigations to uncover the practices underpinning joint working, to determine whether different forms of working can be identified, and if they are, what the relationships between different types of joint working might be.

Having considered usage and potential relationships between terms describing joint working practice, this review will now move on to consideration of the elements that might be subsumed within these terms. It will identify factors that the literature has suggested can impact on joint working practice, and which may inform a greater understanding of joint working in stroke care. The previous section considering evaluations of service delivery and care outcomes suggested

that research has highlighted different potential factors as leading to improved outcomes in healthcare. This section of the review will now move on to a consideration of what these elements of joint working practice might be, as key foundations for the data gathering and data analysis throughout the study.

## **2.4 COMPONENTS OF JOINT WORKING PRACTICE**

Within key documents relating to stroke (National Sentinel Audit, Measuring Clinical Outcome in Stroke, National Clinical Guidelines for Stroke), the aspects of joint working which are described and evaluated currently are: meetings attended by a minimum of four staff; meetings held at least once a week; evidence of collaborative goal setting; and the keeping of multidisciplinary records. This section will present work from the broad area of healthcare delivery regarding the components of joint working, and will also consider the extensive literature from other disciplines, in order to evaluate whether these current measures of joint working are able to sufficiently describe or differentiate practice in stroke care.

The research literature on joint working, particularly regarding teamworking in the disciplines of Psychology, Sociology, Business and Management is vast, and here it is only possible to highlight work of particular significance for this study. This overview regarding key influences on practice will begin by considering the first component, and arguably the most important (Larson and Lafasto, 1989, Adair, 1986, Sheard and Kakabadse, 2002, Hackmann, 1990), that of the task to be performed.



### **i) The task and task objectives**

Poulton and West (1997) found that clarity of task objectives in joint healthcare working was the best predictor of effectiveness, suggesting that goal setting and objective setting is a key component of joint working practice. Bales (1950) quoted in Senior and Swailes (2004) identifies key types of activity in joint working: that which focuses on the task, and that which focuses on the process for achieving the task. Hackmann (1990) in his work in varied contexts including healthcare, identified the need for a task to be clear, motivating, and consistent with purpose. He identified that individuals should share responsibility and accountability for task completion, and also he emphasised that the content of the task could significantly shape the interactions that took place amongst individuals working together.

Authors such as West (1994) have emphasised the need in joint working for a task to be intrinsically interesting, with meaningful and inherent reward. He reported that there should be clear, attainable joint goals, with built in performance feedback, and that individual contributions to the goals should be visible, recognised and valued. This view was based on work that was predominantly carried out in business and management contexts, and it is important to note that healthcare teams in contrast to industry, present significant challenges in terms of identification of reward and individual contributions. A significant difference in healthcare teams is the presences of professional groupings, which will be discussed extensively in a later section in relation to the impact of professionalism on joint working.

Of significance here is that authors such as Southon and Braithwaite (2000) have linked the analysis of task in healthcare joint working in particular to a discussion of professional groupings. They highlight that tasks performed by professionals in healthcare have two main characteristics: that of high levels of both uncertainty and high levels of complexity. If, as authors such as West argue, that a key feature of joint working is the need for clear tasks and clear goals, this clearly presents challenges for healthcare where “illness is broad, complicated and multifaceted” (Southon and Braithwaite, 2000). Engel (1994 p.65) emphasised that the nature of the task for healthcare professionals was very different to that of other contexts, requiring motivation that has to be “essentially intrinsic”, calls for “additional effort and ..offers only limited intrinsic reward”. Higgs and Jones (2000 p.4) similarly emphasise the complexity of joint goals, describing healthcare as being “soft systems”, with “ill defined problems, goals that are complex and outcomes that are difficult to predict clearly”.

This importance of the task in joint working is also highlighted by West and Poulton (1997) who refer to the need for “task orientation”, and Hall (2005) who refers to work by Petrie (1976) who describes the concept of “idea dominance”, where a clear or recognisable idea of goal must serve as a focus in order to achieve successful outcomes. Also, Dhillon (2005) who refers to shared goals as being the “social glue” that holds organisations together. These authors thus confirm the need for the task and task objectives to be considered an important component of joint working.

## **ii) Teams and team process**

It has previously been mentioned in the section discussing the meaning of joint working, that government legislation driving the changes in staff working practice has used a variety of terms such as “teamworking” in documents referring to the need for staff to work differently. It has also been highlighted that there is currently considerable debate regarding whether different terms can be used to refer to different types of working practice, and if so what form these practices may take. “Teamworking” is a term in everyday common usage to describe joint working practice with “the ability to work in a team” a frequent feature of recruitment advertisements and job descriptions, references to the need for “team spirit” feature commonly in everyday vocabulary, and with the benefits of “teamwork” seeming to be generally assumed. However, whilst these assumptions are made, an analysis of the literature on teamworking from other disciplines outside healthcare contradicts this assumed knowledge of teamworking practice.

Salas et al. (2005) for example following an extensive review of the literature, report that they are still unable to clarify “what is teamwork”. Saltman et al. (2006) in a recent review of the application of the concept of teamwork to healthcare contend that the process of teamwork has not been made explicit in its application to healthcare, resulting in the possibility that the concept of teams may not be appropriate. Loxley (1997 p.70) highlights the need for a greater understanding of teamworking in a healthcare context. She refers to teamwork in healthcare as “a cosy word which everyone can cheer and in the cheering avoid the hard questions”. She argues that “teamwork” is largely rhetoric, creating a means of making a complex task seem more manageable. Enderby (2002)

similarly highlighted the frequent usage, but lack of clarity in terminology, reporting that the concept of teamworking in healthcare is “hard to foster, difficult to identify whether it really exists, elusive to monitor and frequently taken for granted”.

The literature describing and evaluating teamworking is vast, with, as Saltman et al. (2006) suggest, seemingly a tendency for a lack of full appreciation of the complexity and elements of process that underpin teamworking in the use of the term in healthcare. The literature on teamworking, for example work by Tuckman (1965), Middleton (2000), Sheard and Kakabadse (2002), Castka et al. (2003a), and Davoli and Fine (2004) highlights that the term if used accurately refers to elements of joint working described as “team process”.

Of particular significance to this study, is the use of team process elements to distinguish different forms of joint working practice within this literature. The elements are used to define two different forms of practice, namely the distinction of group working from true teamworking by authors such as Adair (1986), Larson and Lafasto (1989), Sheard and Kakabadse (2002), and Senior and Swailes (2004).

The importance of elements such as the number of individuals working together has been highlighted as being an indicator of different types of joint working, for example Larson and Lafasto (1989), Adair (1986), Senior and Swailes (2004). These authors concluded that a minimum number of two individuals was needed in joint working in order to be considered a team. Belbin (2004b) emphasised

that upper limit on size is important, and comments that six in a team is ideal. Edward (1997) similarly refers to the “maximum effective team size” as being eight to twelve members. Hackman (1990) reported that problems were created if the number of individuals working together was too large. Thus, the number of individuals working together seems to be an important factor in making distinctions between different types of joint working practice. However, although the literature suggests that it is an important factor, there is a lack of clarity amongst authors regarding what specifically is the maximum required number.

In applying this work to the current investigation, it is important to note that in evaluations of stroke services (Royal College of Physicians, 2002, 2004, 2006) there is reference to the need for teams to have a minimum requirement of a physician (doctor), nurses, physiotherapist, and occupational therapist attending team meetings, thus at least four members from different professional groups. The recommendation is made that there should also be speech and language therapy, dietetics, social work and clinical psychology, thus suggesting that the team should consist of at least seven members. Whilst recommending representation from the different professions however, there is no specific recommendation made regarding team size, or particularly upper staffing limits. The 2006 National Sentinel Audit (Royal College of Physicians, 2006) highlights the current large variation in staffing size to be found in stroke care teams, and emphasises the need for research to identify what the ideal numbers of staff might be.

In addition to the number of individuals, team dynamics is considered to be another feature of team process central to distinguishing between types of joint working practice. This is described by authors in terms of a “social system established” (Sheard and Kakabadse 2002), “interaction” (Adair 1986), and “organized cooperation” (Engel 1994). This element refers to the need for individuals working together to be in regular contact with each other and consider themselves as belonging to an identified team (Adair 1986, Senior and Swailes 2004). Although this aspect of joint working is considered important in the teamworking literature, it is noteworthy that in current evaluations of joint working practice in healthcare, and in particular in stroke care there currently seem to be no measures of team dynamics.

As highlighted above much of the work on team process has been conducted outside of the healthcare context, but it seems to be of value when considering types of healthcare joint working practices, and possible links between practice and outcomes. Work on team process and outcomes by Øvretveit (1997a, 1997b) is based on extensive work over a number of years as a consultant being called upon to investigate and advise on joint working practice in healthcare, and is thus of particular interest for this study and will be considered in detail. Øvretveit identified different types of working practice, based on the team process concepts of integration, team membership, process, and team management. He argues that by describing and categorising joint working on these aspects it is possible to make distinctions between type of practice in order to evaluate it.

Of particular significance for this study is his distinction of a continuum of working practice, with a network at one end of the continuum, and with a closely integrated team at the other. In contrast to authors in the previous section who also report a continuum of joint working practice he provides more specific details regarding the elements of practice that distinguish the different points on the continuum.

A key difference between joint working practice at either end of the continuum relates to the management and resource allocation of the team. In particular the distinction regarding whether they are co-ordinated professional teams, who are managed and resourced outside the team, or collective responsibility teams, who manage their own resources. Øvtretveit describes a fully functioning team as having a “one door entry” to all the services, where case allocation meetings determine management and clinical decisions, and describes variation from profession-specific management, where each member of the team is managed by someone outside the team from their own professional group, to a single structure where all group members, whatever their profession are managed by the same person.

Other important distinguishing features between a network and a fully functioning team concern the continuum of integration, which refers to the degree to which the team influences individual members decision-making. Another feature relates to the degree of permanence and stability between core members and extended team members. Finally, a last important element of team process distinguishing different types of working is the client pathway of care,

and the decisions made along the care process. This ranges from parallel processes, where each profession has their own pathway, but cross-refers, to reception-assessment-allocation pathways, where meetings are held to allocate assessment work, then meet again to allocate intervention work.

This work is significant in two ways for this study. Firstly, in its description of different types of joint working based on clearly described elements of team process relating to allocation of work, management, decision-making, team membership, and the process of care. Secondly it is important in the description of a continuum of joint working practice from networks to teams.

Reviewing the literature relating to team process suggests that current understandings of joint working in healthcare fail to encompass the complexity of elements of teamworking. The literature suggests that an understanding of the nature of the task carried out by the team, and examination of team process are key to evaluations of joint working practice and outcomes. Salas et al. (2005) for example support this importance of considering team process in evaluating outcomes. They report a link between team process factors and effective performance in high-risk environments such as healthcare. Thus, identifying the elements relating to team process in stroke care may be a significant factor in gaining an understanding of joint working practice.

### **iii) Leadership**

Kennedy (2006) links the need for strong leadership in healthcare to the avoidance of medical error and avoidance of failures in care such as outlined in



the Bristol Inquiry Report (Bristol Royal Infirmary, 2001). Adair (1986), Sheard and Kakabadse (2004) and Ødegard (2005) identify leadership as an important factor in regard joint working outcomes. Pethybridge (2004) in an examination of discharge procedures, also concluded that good leadership was vital to service delivery. Thus leadership is important to consider as potentially having an influence on the two healthcare outcomes linked with joint working presented earlier; that of improved care or improved service delivery.

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Leadership involves focussing efforts towards the common goal, and helping individuals to work together (Julia and Thompson, 1994). Leadership training is a key area within the NHS currently, offering clinicians training in leadership skills under the LEO (Leading and Empowered Organisation) initiative. Much of the early work reported in the literature in regard to leadership aimed to identify the components or traits of a “good leader”. It is now recognised however, that a great variety of personality types can be successful leaders (Middleton 2000). Some authors have drawn attention to the fact that leadership behaviour is not a single way of interacting but changes between situations. West (1994) for example emphasised that it is exercising appropriate behaviours at the right time that is the skill of leadership, requiring well developed interpersonal skills, good decision making and emotional resilience. Hackman (1990) also supported this notion that there was a need to change leadership style as conditions changed.

McElhaney and Briggs (2000) added further clarity to the finding that leadership is not a single set of behaviours or skills. They identified four common leadership styles, the traditional hierarchy, self-directed team, focal leader and

shared leadership style. This recognition of different types of leadership style and the need to change leadership according to conditions could be of significance in consideration of the different contexts of stroke care, with the right form of leadership required for the right environment in order to lead to improved performance in that context.

The literature on teamworking in the fields of business and industry has long considered that a “vertical” model of leadership was required (see Ensley et al. 2006), where teams had an identified individual who was the leader, and a formal leadership structure. However in recent years there has been recognition of new forms of leadership described as “shared” or “collective” with increasing attention being paid to issues of context, time and team development process (Day et al., 2006, Ensley et al., 2006). In healthcare there have been similar moves to recognise that a single leadership model may not be optimum in all situations. Davies (2000) for example argues that moves to joint working could be equated to different leadership styles of transactional or transformational approaches. A transactional leader has a strong sense of direction and makes an agreement with subordinates to ensure the task is achieved. A transformational leader is at the centre of a network allowing a vision to emerge.

Proponents of joint working have argued that a single leadership model is not in the spirit of changed working practice, where the contribution of all parties should be equal. West (1994) emphasised that leadership should not be the remit of one individual, that every person should take some responsibility. Toner et al. (1994) argued that there should be shared leadership functions, with leadership

rotating amongst staff. McCallin (2001b) proposed a model of shared leadership, describing it as the cornerstone of joint practice, and that “traditional models of team leadership are outdated in the health reform environment”.

Hewison and Griffiths (2004) argue that leadership is crucial to ensure that changes in the National Health Service happen, that leadership and management skills need to be developed in order to transform the quality of care patients receive. They outline the complexity of leadership in a health care system with an “ever-expanding framework of regulatory mechanisms”, which is at odds with an ideal leadership style that emphasises “risk and creativity”. In an organisation such as healthcare where professional groups have traditionally been differently accorded power and status (to be discussed further in the professionalism section) the challenge for change in traditional models of leadership is great. Together with the need for different types of leadership in different contexts, this move to transformation in leadership in healthcare seems to be under-researched, and offers a key reference point for this study.

#### **iv) Conflict and problem-solving**

Authors such as Davoli and Fine (2004) identify conflict resolution and negotiation skills as crucial elements of joint working. Finlay (2000) referred to operating in a healthcare environment as challenging and difficult, with potential for tension and conflict. The study describes “good colleagues” versus “bad colleagues”, “sibling rivalry”, where individuals compete for territory and recognition, and there may be a failure of individuals to live up to the ideal image. Dent-Brown (2000) describes situations where there can be divided, and

conflicting individuals, where separate “camps” have evolved, splitting into polar opposite views.

Authors have emphasised that conflict and problem-solving are inevitable or even necessary in joint working. Engel (1994) argued that the resolution of conflict was a key issue that needed to be managed, and that joint working could not be achieved merely by avoiding controversy. Julia and Thompson (1994) considered conflict as essential if used constructively. They argued that the way staff resolve conflict and reach decisions was a measure of effectiveness, with the diversity of views and opinions an important element in successful joint working. This positive nature of diversity is also emphasised by Davison (2004) who considered that particularly in decision-making, different knowledge bases have the potential for creating innovation and providing momentum for change. This will be further explored in the following section.

#### **v) Innovation and creativity**

It has been argued by authors such as West and Poulton (1997) that support for innovation is important in successful joint working. However, although considered to be a key element of successful joint working, innovation can also be associated with negative outcomes. Williams and Sibbald (1999) for example reported that changes to new working practices had the potential to inspire innovation, but also to threaten innovation. In their study exploring nurses perceptions of change in healthcare, they found evidence of creativity and innovation, but also “ambiguous spaces” where there was a sense of loss and uncertainty caused by changes. The background to the study section highlighted

that working practices in healthcare are at a point of considerable change currently, thus notions of conflict and problem-solving in a joint working context may be of significance.

#### **vi) Communication**

The most common element of working practice described in studies of joint working in healthcare, is that of communication skills (see for example Molyneux 2001, McCallin 2001a, Kilminster et al. 2004, Dielman et al. 2004, Ponzer et al. 2004). Lawson (2004) describes joint working as “a new way of talking”. Smith and Preston (1996) argued that “investment in communication training within the world of industry is a model from which the NHS could benefit”. Jeffery et al. (2005) discuss the importance of efficient communication strategies and techniques “to achieve higher levels of decision-making performance”, which is required in situations where there is complexity or uncertainty. Pethybridge (2004) used an interlinking model of leadership, communication and teamworking to represent aspects of joint working that affected decision-making. Boaden and Leaviss (2000) emphasised that joint working “throws up communication needs”, and that by developing skills such as good communication, any problems can be overcome. This links in with the discussion regarding conflict resolution outlined above.

Whilst associating enhanced communication with positive outcomes in joint working, authors also report that communication breakdown impacts negatively. Fitzsimmons and White (1997) for example discuss examples of failures to communicate between agencies and practitioners. Shaw et al (2005) also describe

poor communication in a primary care setting, which made it difficult for staff members to “share and relate”. Rider (2002) reports that skills for good communication are often not taught to students, resulting in poor working relationships between individual staff. Smith and Preston (1996) report findings showing that members of the same professional group experience fewer difficulties communicating with each other, thus there is greater potential for joint working across different healthcare professionals to need enhanced communication skills.

#### **vii) The individual healthcare worker**

In a consideration of joint working in healthcare, the literature emphasises that care is actually provided by a collection of individuals (Adair, 1986), and that the personal qualities and commitment of staff are key factors in joint working (Molyneux, 2001).

The elements linked to individual personality in the literature as key to successful joint working include: the importance of the individual ability to adapt to change (Engel, 1994), and an individual’s “willingness to collaborate” (San Martin-Rodriguez et al., 2005). Ruiz Ulloa and Adams (2004) emphasise the importance of considering an individual’s attitude, and report that where the process of developing work practice is not well managed, it can generate a negative attitude towards joint working in individuals. Freeman et al. (2000) described three “individual philosophies” in joint working of: the directive philosophy, the integrative philosophy, and the elective philosophy. The different philosophies

impacted on the way that individual staff approached a shared vision, communication, and role understanding and valuing.

In contrast to this work, which suggests the importance of individual healthcare staff personality in joint working, Castka et al. (2003b) argue that there is a misplaced overemphasis on the individual. They emphasise that it is the individuals, *along* with the team process, structures and environment that are important, not just individual factors alone. This need to consider the individual in the context of the working environment is also emphasised by Burch and Anderson (2004) who refer to a need for “person-organisation fit” – a need for a match between the person and the environment. Bradley and Herbert (1997) report that the mix of personality types and interaction between different types has a significant effect on working performance. It is important to note that the ability to match a person to an environment relies on management structures, which allow this.

Notions of respect and trust are another element linked to individual staff members, that the literature identifies as significant to joint working practice. Spector and Jones (2004) investigated the notion of trust in the workplace, finding that personal trust was linked to co-operation, performance and quality of communication in organisations. They suggest that the more an individual has a propensity for trusting others, the more likely they will be to attribute trustworthiness to a new colleague. San Martin-Rodriguez et al. (2005) agree that trust is a key element in joint working. They conclude that “professionals consider trust indispensable”, and identify that trust in ones own abilities, and

trusting others, depends on competence (skills and knowledge) and experience. They also discuss mutual respect as an area of importance. They argue that respect is based on knowledge and recognition of the contribution of other professionals.

Ødegard (2005) also found that respect and trust were important positive factors for joint working. She found in her interviews with professionals from a school psychology service that “respect” was a central word in quotations. Lawson (2004) describes the “social trust” that is required in collaboration, outlining the required give and take in establishing trusting relationships that successfully enables trust to be developed and risk and uncertainty avoided in joint working.

## **2.5 THE IMPORTANCE OF ORGANISATIONAL CONTEXT**

In the literature on joint working, for example Castka et al. (2003a), West, (1994) it is emphasised that there are three core dimensions, and that for effective joint working every dimension needs to be developed. The importance of the team process dimension and the individual dimension have been discussed, this exploration of the elements of joint working practice now turns to the third area, namely the organisational dimension.

Authors such as Senior and Swailes (2004) discuss the idea of the environment being an “external subsystem”, which affects the behaviour of individuals working together. They suggest that among contextual variables, an organisation’s structure and culture are the most significant influences on the ability of staff to operate. Of particular significance for this study is their



argument that different contexts can explain different degrees of effectiveness. Castka et al. (2003b) also argue that the effectiveness of an organisation must have congruence between people, process, structures and environment. They suggest that these factors represent the organisational culture. Costa (2003) links work outlined in the previous section to this, in their finding that trust was strongly related with team member's attitudes towards the organisation.

Healthcare service provision is subjected to many external influences such as legislation, professional regulations, management and financial decisions, over which individuals may have little or no control. Authors such as San Martin-Rodriguez et al. (2005), Mickan and Rodger (2005) and Cowley et al. (2002) identified that the individual activities of staff seemed far less significant than the overall culture, stability and long-term commitment to a service. Cowley et al. (2002) argue that multiple changes in the organisation of health services has mitigated against successful joint working. Gibbon et al. (2002) also highlight the impact of organisational conditions. Their study is of particular relevance to this work as it was conducted in three stroke units. They concluded that the level of management support for staff and external organisational factors had the most significant impact on joint working.

Echoing the background to the study section of this thesis, Boaden and Leviss (2000) highlight the major changes in structure and organisation within the NHS currently, impacting on the setting in which staff work, commenting that NHS organisations are now "awash with new demands over and above patient care". Bateman et al. (2003) also conclude that supporting staff to provide a new

flexible and responsive health care is likely to become increasingly important. Atwal (2004) found that organisational conditions such as workload pressure led to lack of time, creating the biggest barrier to joint working.

Writers such as Loxley (1997) have applied principles drawn from Systems Theory (Parsons, 1954) to discuss the influence and elements of institutional structures. Loxley outlines the core elements (Loxley 1997 p.78) as being an independent and holistic culture, autonomy and power sharing, and open boundaries. Patton (2002) describes “systems thinking” as a crucial aspect of organisational learning, also identifying a “systems perspective as becoming increasingly important in dealing with and understanding real-world complexities” (Patton, 2002 p.120).

Systems Theory has been applied further to healthcare in the Neuman Systems Model (Neuman and Young 1972), a model that has been used most extensively in the nursing profession. It develops the concepts of interplay between systems and an individual in terms of five variables. These are physiological, psychological, socio-cultural, spiritual and developmental. Memmot et. al (2000) argue that the model is a useful tool for joint working, as it operates on the premises of holistic healthcare, rather than being profession-specific.

Helme and Sills (2004) argued that “systems thinking” could take an understanding of the bigger picture, specific observations, understanding of individual boundaries, and notions of interconnectivity, and be used to create a better understanding of individual perspectives, learning techniques, and allow

for new ways of joint working. Payne (2000) also applied systems approaches, describing spheres of influence with boundaries, highlighting that systems theory was a useful way of representing the formal structures of an organisation.

The influence of Systems Theory can be detected in the work of Lee and Williams (1994), and more recently Bray and Preston-Shoot (2000). Lee and Williams (1994 p.86) describe the need to change the mode of joint operation when a problem progresses to “a higher stage of behavioural or social dysfunction”. They suggest that solutions to problems are found by “interrelatedness and synergistic processes”, by systemic approaches emphasising “openness, flexibility, integration, and synthesis”. Bray and Preston-Shoot (2000 p.144) refer to the “interprofessional system”, and the need to stand back and evaluate ones own and others contribution to the system in order to understand complex dynamics. This is a process which could be linked to shared mental modelling, which will be discussed in regard to professional knowledge.

The work of Engeström (2001) echoes this approach in his development of concepts from activity theory, to describe “human activity systems” where the patient is the object of the activity, and the system is construed as the team operating to provide care. Each activity system is seen in a network relationship to other activity systems. This development of activity theory seems to have application to health care provision in the current drive towards “patient-centred care” which will be discussed further in a later section, and is also important to this study in its description of network relationships between individuals.

Chaos Theory is closely allied to Systems Theory, in arguing for the understanding of systems as a complex whole. Authors such as Anderson et al. (2005) and Rambihar (2000) argue that healthcare organisations should be seen as “unpredictable and disorderly”, seen as “complex, adaptive systems” rather than “a well oiled machine” (Anderson et al. 2005). Complexity theory suggests that it is the interaction and interdependency among elements, as well as the unity as a whole that needs to be studied, with the key to understanding a healthcare system being “patterns of relationships and interactions” (Capra, 1996), “challenging our need for order and prediction” (Patton, 2002).

An alternative model that has similarities with both systems theory and chaos/complexity theory is provided by Elias (1978). Elias was critical of a “process reduction” approach to sociology which emphasised static, isolated processes within organisations rather than dynamic and interdependent networks. This work has been applied to the understanding of innovation and change in organisations, with an emphasis on social structures and processes, and recognition of the complexity and impact that these “social forces” exert. Elias proposed “game models” as simplified analogies of these complex social systems to describe the relationships between interdependent people.

Another way to explore organisational systems is to use the Network Analysis model. This model evolved from the principles of mathematics, specifically graph theory, which devises points on a plan and uses lines to demonstrate connections between them. Payne (2000) considers that this model relates well to joint working as “points” can be seen as individuals, and “lines” as

connections between them. It is then possible to see how connected the individuals are, and say something about relationships between them. This echoes the work of Engeström (2001) reported above who similarly emphasised the network relationships between individuals, and also the work of Øvretveit (1997b p.11) as mentioned earlier, in his emphasis on a continuum of working practice from network working to an integrated team, who contends that a network is the first point on a continuum of joint working practice.

Principles of the networking model such as exploring relationships between individuals in service networks, and using visual imagery data to represent relationships between individuals was thus influential in the design and data gathering for this study, as a means of analysing and comparing types of joint working in different organisational systems.

## **2.6 THE INFLUENCE OF PROFESSIONALISM**

Banham and Connelly (2002) quote a character from Shaw's "The Doctor's Dilemma" who states that "professions are a conspiracy against the public", and throughout the history of the welfare state the professions have played a central role. This discussion of the literature has drawn on studies from healthcare, but also work from other disciplines such as business and management in the exploration of the elements of joint working practice. As was highlighted in regard to the task and goal setting, a major distinction between joint working practice in healthcare and in other disciplines such as business and management is that in healthcare, workers have professional groupings and different

allegiances (Firth-Cozens, 2001). In a consideration of joint working in a healthcare context, the influence of professionalism is thus important to examine.

Southon and Braithwaite (2000) describe the key aspects of professionalism as being autonomy, and dominance over other groups. They define “professionalism” as being associated with tasks requiring a high degree of expertise, the freedom to control the management of the task, a system of ethics and professional standards. In order to address these needs professional organisations were developed to support practitioners in enhancing standards and ensuring standards of their colleagues. Saks (2000) describes as “social closure”, the move to legally underwritten self-regulation of the professions that excluded the unqualified, and gave power and status to the qualified. McNair (2005) emphasises that the codes of ethics that individual professions possess leads to divisiveness between disciplines. She suggests that training of health professionals should encompass a core set of “professionalism” values to erode professional barriers.

#### **i) Power and status**

Hugman (1991) emphasised the “social power” that professionals possess, with claims to a particular knowledge base marking professionals apart. It was this possession of a differentiated knowledge base that was a key basis for the definition of occupations as being “professional” or not. “Each profession has its own body of knowledge, skills and expertise” (Waugaman 1994), with autonomy of practice also being a key requirement.

In health care, there has been an evolving of professions over time, with medicine the most established, and still dominant profession (Page and Meerabeau, 2004, Hafferty and Light, 1995). Other professions such as nursing and the therapy professions (Physiotherapy, Speech and Language Therapy, Occupational Therapy) have struggled to alleviate themselves from a “semi-professional” status to full professional status (Saks, 2000). Historically there has been “an acute power gradient” between doctors and nurses, and a well-documented professional hierarchy continues to exist (Page and Meerabeau, 2004).

Hall (2005) discusses the struggle within healthcare for different professions to define its “identity, values, sphere of practice and role in patient care”. Beattie (1995) discusses the notion of “tribalism” in the healthcare professions developed as a result of professions evolving separately, with deeply rooted boundaries between them. Increasing specialisation due to expansion of knowledge has caused compartmentalisation and fragmented care (Memmot et al. 2000). Loxley (1997, p.52) highlighted that “the domains the professions operate in are subject to competition and challenge”, with professions “in competition with each other for territory”.

Joint working clearly presents considerable challenges to practices dominated by power and status considerations. A number of theoretical frameworks have been used to explain the preservation or potential eroding of these power and status assumptions. Loxley (1997) uses Social Exchange Theory to discuss changes required in joint working. She emphasises that in order to have successful social

exchanges there needs to be some benefit to participants, as well as sufficient power to be competent to deliver change, and open and organised structures for exchange. Gilbert and Bainbridge (2002) discuss some of the principles of Social Exchange Theory, without referring to it specifically. They highlight the need for individual professionals to take risks in assessing the balance between the costs and benefits of joint working.

An alternative theoretical underpinning is provided by Gilbert and Bainbridge (2002), who discuss the application of Co-operation Theory (Axelrod, 1984) to joint working. This theory suggests that individuals need to gain an understanding of each member's power, culture and language, in order to achieve change in knowledge, skills and attitude formation regarding joint working. Bond (1985) proposes a "taxonomy of co-operation", or a hierarchy of joint working. He emphasised that joint working was highest where individuals worked closely together, thus this links in with the discussion of team process factors such as frequency of contact described in an earlier section. Co-operation Theory emphasises the need for parties to co-operate for their own benefit (trust), the importance of equal power, and the likelihood of some kind of loss or punishment if co-operation does not happen. In social settings there may be the potential for loss or punishment, but healthcare offers a complex setting for evaluating costs and benefits to individuals.

As a significant feature of professionalism however, issues regarding power and status need to feature significantly in an examination of joint working practice. Hall (2005) emphasises the need for a "status-equal" basis between team



members for joint working practice. Lawson (2004) describes the need for “equitable relations”. He emphasises that equity is not the same as equality, as inequality inevitably leads to power plays, but in order to work together effectively individuals must treat each other equitably amid their inequalities. Hugman (2003) however argues that until the benefits of professionals moving outside their “tribal” circles are clearly outlined there is little incentive to change. Southon and Braithwaite (2000) declare the need to recognise the uncertainty and complexity inherent in health care, which requires professionalism to have a central role.

Some authors have endeavoured to incorporate changing healthcare delivery into new understandings of professionalism. Higgs and Jones (2000 p.4) for example discuss a new model for health professionals called the “interactional professional”, with a need for professionals to be effective in interaction with the key players pertinent to a case. They redefine professional autonomy as “independence in function.....combined with responsibility and accountability for one’s actions”. Rafferty et al. (2001) in their study of nurses argued that autonomy was important in joint working, and that organisations should “promote autonomy without fearing that it might undermine teamwork”. Catto (2005) argues that professionalism remains an important aspect of care, thus needs preserving in changes to practice. Hafferty and Light (1995) discuss the possibility of “reprofessionalisation” as individuals shift their identity and commitments from their profession to the organisation that they work in.

In another discussion of the nature of professionalism, Thompson and Mathias (1997) outline challenges for professionals today associated with the advent of demand for choice, the purchaser and provider model, and the demand for equality. They argue that professions have been forced to become less “inwardly focussed”, more public about their limitations, and more willing to cooperate and collaborate with others. Hafferty and Light (1995) similarly emphasise the need for change, wondering whether “we need to rethink whether autonomy should remain the pivotal issue in understanding professional dynamics”, and whether the “arrival of practice guidelines and protocols may well facilitate medicine’s loss of control over clinical activities”.

Doyal and Cameron (2000) emphasise the need to reshape the NHS workforce, as staffing problems, spiralling costs and increasing demands on the NHS have an impact. They suggest that in a radical reshaping of workforce:

“Some professions are likely to gain power and status, while others lose. Indeed some professions may not be sustainable in their current form, while other groupings are already emerging to meet new needs”.

In a discussion of new forms of joint working Loxley (1997) highlights that government policy documents regarding new ways of working have emphasised gains to the professions by joint working. The suggestion is that they will benefit by the sharing of resources, experiencing common challenges, and sharing mutual goals, needs and concerns. Beattie (1995) also emphasises the potential for positive benefits from changes in professionalism, suggesting how transforming education and knowledge could change cultures and boundaries enabling a redrawing of boundaries and a “republic of health”. Williams and Sibbald (1999) discuss the notion of a flexible generic worker, which would be

designed from a review of workload. They argue that a broadly based generic worker might result in a non-hierarchical approach to healthcare and genuine joint working. Shield (2002) similarly argues that education and training should be modernised to provide an “interprofessional practitioner” for older people. Shield concludes that improved healthcare delivery requires new ways of working for staff, with the workforce enabled to take on new roles and extend skills.

## **ii) Professional socialisation**

Professional differences exist as a product of training and philosophical approaches underpinning the professions (Fitzsimmons and White, 1997), with, as outlined above, practitioners trained to function both independently and autonomously within professional groupings. It is not clear from the literature how this process of development of professionalism occurs however.

The process of becoming a professional is referred to as professional socialisation (Ewan, 1988). It is a process of developing skills, knowledge, professional behaviour, and career commitment (Waugaman 1994). It is the process by which non-members of a profession are exposed to experiences and knowledge regarded by the profession as necessary for gaining entry, often the “unwritten rules” which allow membership entry, rights and status. Mann et al. (2005) refer to the aspects of professionalism that need to be developed as being “non-cognitive” with characteristics that have proven difficult to define and measure. Rees (2005) argues that there is not yet a complete theory of the development of professionalism. Goffman (1959 p.141) referred to “dark

secrets”, “strategic secrets” and “inside secrets” that help a group feel different from those not “in the know”. Fitzpatrick et al. (1996) emphasised the important influence of the practice environment and role models in the professional socialisation of student health professionals. Bromme and Tillema (1995) described professions as constituting their own cultural contexts within a society.

In a comprehensive review of the literature on professional socialisation Howkins and Ewan (1999) emphasise the complexity of the process, and the adoption of values, norms and stereotypes held by members of a profession. The contact hypothesis (Allport, 1954) has been used to explain inter-group relations and dynamics formed as a result of professional socialisation. Allport (1954) highlighted the conditions necessary for inter-group connection, in particular the importance of equal status, working towards common goals, institutional support, and frequent contact. The theory highlights that it is only through contact between members of different groups, that there can be the discovery of mutual similarities and change in stereotyped attitudes (Mandy et al. 2004).

### **iii) Professional knowledge and competency**

At the heart of each profession is its claim to competency in a specific field. Thompson and Mathias (1997 p.203) outline the need for professionals to acquire new skills in order to address greater demands and expectations. They discuss the general erosion of professional status since the 1980’s and the “shock that technical proficiency is not enough”. They highlight the need for professionals to possess skills more than the “narrow, cognitive and subject-specific ones”. As outlined in the background to the study section UK government policy such as

Agenda for Change and the Changing Workforce Programme is driving this agenda forward, with the emphasis on discrete competencies, rather than profession-specific skills, with the Skills Council being charged with establishing client care competencies based on care groups, rather than professional groups.

The notion of competencies is, however an area of debate, with argument that professional practice should not be reduced to mechanistic competencies. Walsh et al. (2004) argue that competency is a difficult concept to define, with competencies being restricted to understanding learner requirements, rather than performance of practice. They prefer use of the term “capability”, to describe work performance. Fish and Coles (2000) propose that there are two clearly distinct views of professional practice, the “technical rational” view and the “professional artistry” view. The first of these views practice as delivering care via a clear cut set of routines and procedures, which can be broken down into constituent parts, or competencies. The alternative view however describes practice as complex and multi-faceted, with individual interpretation, and professional judgement being all-important. Schön (1983) refers to the “grey areas of professional practice”. Higgs and Jones (2000) describe clinical reasoning in healthcare as an inexact science, with uncertainty and challenges.

As the primary means of distinguishing one professional from another, professional knowledge is a key concept within joint working. Hall (2005) describes the “cognitive map” that each profession possesses, a major component of the culture of each profession, which results in clinicians “looking at the same thing and not seeing the same thing”. Hall discusses the application of cognitive

learning theory to professional knowledge, suggesting that each profession may attract individuals with particular sets of cognitive learning styles and skills. Rogers (2004) discusses the way that professional knowledge is constructed, referring to Argyris and Schon's (1991) model of theory-in-use (norms which predict a certain behaviour in a given circumstance). This theory-in-use which is developed by practitioners as a result of experience, may be different to the espoused (or text book) initially learned and used theories. Rogers argues that practitioner theory-in-use which leads to the creating of unwritten norms and tacit rules, needs to be addressed in joint working as it creates differences in perceptions and assumptions.

Authors such as Boshuizen and Schmidt (2000) discuss the changes in professional knowledge that occur as clinicians become more experienced. There is often considered to be a continuum of practice from practitioner to expert practitioner (Dreyfus and Dreyfus, 1986), as a professional moves from dealing with structured problems in an analytical way, to being able to deal with problems in an almost intuitive way. Boshuizen and Schmidt discuss these changes in terms of knowledge restructuring, arguing that novice and expert knowledge structures differ in many respects, leading to differences in clinical reasoning decisions. Hilton and Slotnick (2005) argue that there is a continuum in professional practice from a proto-professional to professional, with the professional able to show knowledge, skills and "practical wisdom" (insight and judgements based on experience).

This work on the conceptualisation of professional knowledge is important for joint working, as knowledge sharing or transfer is a key aspect. D'Amour and Oandson (2005) propose a concept of "interdisciplinarity" where exchanges in the knowledge base of disciplines result in the development of new disciplines and a reforming of roles. Hubbard and Themessl-Huber (2005) highlight that joint working requires new ways of thinking, emphasising that it is through working practice that professional knowledge is produced. They discuss the ability of health professionals to share knowledge and exchange information about patients, arguing that joint working is not just about transferring information, but about creating new thinking. They propose that there is a need to focus attention on "how knowledge is created rather than upon how knowledge is exchanged", described as "knowledge synergy" by Kvarnstrom and Cedersund (2006). This work is of significance for this study, as it suggests that the way that professional knowledge is shared or exchanged may be a factor that distinguishes different types of joint working practice.

Hoopes and Postrel (1999) discuss the impact of not sharing knowledge, as destructive mistakes, which they term "glitches". They argue that specialisation places individuals in different cognitive universes, but that integration of practices leads to shared knowledge, co-operation and co-ordination, which improves performance. Nelson and Coopriider (1996) similarly saw a link between increased shared knowledge and increased performance. They highlighted that shared knowledge was especially critical in complex environments, and that the building of trust and influence was an important antecedent to achieving shared knowledge. They drew a distinction between

simple knowledge transfer between individual professionals, and knowledge sharing, where new forms of knowledge are created by dynamic interaction, a concept that can be linked with the development of shared mental models, again, as above suggesting that the way that knowledge is used and moved between different professionals may be of significance in joint working, and may be an indicator of different types of working practice.

Authors such as Jeffery et al. (2005) use the term “shared mental models” to refer to the creation of shared knowledge. They describe mental models as “cognitive representations or structures of the task....that are held in common by team members”, models will include elements of knowledge, skills and attitudes. They conclude that each healthcare practitioner does not need to know all the information that other staff have, but needs to have shared knowledge of the decision-making structure. They also support the view that there is a progression from a novice state to an expert state of mental modelling.

#### **iv) Professional role**

Role Theory is applicable to the field of healthcare, where individuals have a clear role by virtue of professional qualifications, and occupy a position within a social system. Role Theory concerns people and the behaviours that are characteristic of people in different contexts (Biddle 1979). Key concepts concern roles and social position/status, the expectations for role behaviour, the context in which the role is played out, the function of roles in social system, and roles as a means of socialisation and development of individual self-concept. It



is responsible for a vocabulary of terms and concepts that is widely used, for example notions of role conflict and role insecurity.

A well-used application of Role Theory has been in the work of Belbin (2000, 2004a, 2004b), which applied the concept of roles to the workplace and management teams. Belbin developed a framework of team roles, which he called the plant, the resource investigator, the co-ordinator, the shaper, the monitor evaluator, the teamworker, the implementer and the specialist. Belbin's model is widely applied in industry, however Payne (2000) argues that the application of Belbin's work to healthcare is limited by the full complexity of healthcare professional's roles not being reflected. Leathard (2003b) highlights that the framework does provide a context in which to understand joint working in healthcare, but it is the competencies of individuals, which are of equal importance to the role that they perform.

As outlined earlier, major government policy documents (The NHS Plan, DOH 2000, Meeting the Challenge, DOH 2000, National Service Framework: Older people, DOH 2001) relating to the NHS, refer to a need for role blurring, for traditional role demarcations to be broken down in a drive to provide better care. A central theme emerging from studies of working practice however concerns the need for role clarity and the development of role conflict (Smith and Preston, 1996). They describe the rapid pace of change leading to "defensiveness, the maintenance of professional barriers, and an unwillingness to be open". Williams and Sibbald (1999) found a "sense of loss and insecurity" among the professionals they studied, which related to boundary changes, causing

uncertainty in professional identity and aspects of role that created tensions. They found in the nurses they studied that there were expressions that “things were going too far”, and they report a lack of professional networking leading to demoralisation and sense of reduced autonomy. They concluded that the advantages of breaking down professional boundaries could be outweighed by uncertainty, isolation, poorer communication and increased stress.

In an echo of the previous discussion regarding Systems Theory, Humphris and Masterton (2000) argue that health need and workforce requirements necessitate a “whole system approach” to role development, with the opportunity to let go of past constraints. They contend that the professions need to evolve, and “may become almost unrecognisable in the nature of their role and function”.

An important consequence of role redevelopment is outlined by Dowling et al. (2000) who focus on the accountability and legal problems inherent in changes to professional boundaries. They suggested that there were issues relating to professional standards, legal accountability for negligence or harm, and risk management. They highlight that there is an urgent need for professional regulations to be re-examined, and educational and management strategies put in place. Lahey and Currie (2005) also discuss the implication of role redefinition. They argue that there is a danger of role confusion, leading to confusion of decision making, which would be “fatal in terms of liability”. They conclude that there is currently uncertainty around regulatory and medico-legal barriers to joint working practice, which produces a “high risk of the courts misallocating accountability”.

Biggs (2000) links changes in healthcare to post-modernity, as boundaries between groups become more permeable. He argues that a balance has to be found which respects expertise and responsibility, but which equally recognises interests and qualities shared with others. He raises the concern that in healthcare there is an increasing tendency to ignore structure and difference, to a state without fixed groupings, which is in a constant state of flux where “yesterdays decisions are forgotten tomorrow and responsibility is increasingly difficult to locate”. In many of the legislative documents relating to changing working practice (for example Department of Health, 2000, Department of Health 2001) there is reference to “role blurring”, removing role demarcations and traditional role boundaries in joint working, clearly there is a need for research studies to investigate how these reformations of roles may impact on working practice and care outcomes.

#### **v) Professional identity**

Identity can be closely related to role, as an individual identity is often enhanced by the working role (Hornby and Atkins 2000). Identity relates to the sense of being someone, and is built up from a number of sources including personality, identification with significant others, and the assumption of particular roles. Group identity derives from factors held in common by those in the group, which in healthcare could be belonging to the same profession, or being part of the same healthcare team. Hornby and Atkins (2000) assert that working identity is made up of three central boundaries of the person, the profession and the agency. They describe threats to working identity when practitioners feel that their role,

profession or agency is endangered as a result of change or new developments, as may be the case in joint working

Social Identity Theory proposes that part of an individual's self-concept is based on the identity of the group that they belong to. Abraham and Hoggs (1990) described social identity as "self-conception as a group member". They stress the need for a positive identity by an individual in their use of self-images to build a self-concept. Hind et al. (2003) describe a key concept of the theory as an "interpersonal – inter-group continuum", with at one end of the continuum individuals defining themselves by individual characteristics, and the other end individuals defining themselves by group membership, such as their professional group. This framework could potentially be applied to notions of a continuum of types of working practice, where members define themselves by individual profession or by service provider identity.

Self-categorisation Theory is distinct from Social Identity Theory, but is closely related. It is concerned with the key concepts of self and identity, but views individual and group identities as different categories, rather than as either end of a continuum, and is more concerned with the process whereby people conceptualise themselves in social categories (Hogg and McGarty 1990). Turner (1999) uses the theories to explain inter-group discrimination, where individuals favour their in-group over an out-group, which Mandy et al. (2004) related to professional stereotypes amongst healthcare groups.

Davoli and Fine (2004) discuss the complacency with identity in uni-professional working, and the challenges of working with professionals from other fields. They emphasise that “it is important that professional identities not become watered down...a successful collaborative process will enhance one’s professional identity”. Hornby and Atkins (2000) discuss the need for professional identities to be “readily knowable” in order for agencies to use them fully. They describe a process of “domain mapping” to help workers understand their own domain and that of others. They propose that practitioners who are secure in their own identity will have little problem mapping their own domain, suggesting that there may be different types of joint working practice as newly qualified practitioners may need to develop their own sense of identity as a practitioner and their “own domain” before they are able to successfully operate in a context of blurring of role and identity in joint working.

## **2.7 SERVICE USERS**

Thus far consideration of the elements of joint working practice and the impact of changes to practice has focussed on the professionals. It has been argued that use of the term “interprofessional working” to describe joint working implies a subordinate position for the service user, “they are being participants in something professional that already exists” (Payne 2000). Rather than only discussing the role of staff working in healthcare, Payne advocates involving service users in defining roles so that they can understand and work with decisions made. He presents a number of network models of joint working, with service users at the centre. This is in keeping with current healthcare policy in the UK, which emphasises that care should be centred around the patient, and that

there should be “a fundamental change in relationships with patients” (Department of Health, 2005). In order to facilitate this, there has been the introduction of care pathways to the NHS, which are intended to integrate and design services around the specific needs of the patient (Wilson, 1997), and government policy has set out the need for whole system change so that the NHS becomes “patient-led” (DOH, 2004). These policies are concerned with empowerment of patients, with patient choice, and with recognising the role of patients in their own healthcare (DOH, 2005).

In a discussion of the role of the service user, Bligh and Parsell (1999) emphasised that “the patient should now be placed at the hub of the multiprofessional healthcare wheel”. They argued that patients were at the bottom of a pyramid, and subjected to conveyer-belt medicine. Abreu et al. (2002) concluded that rehabilitation professionals, although including clients in team meetings, and referring to meetings as being “client-centred”, were minimally engaging them. They described clients as “the ritual ghost”, with a subordinate position and passive participation. Hackman (1990) found that the clients had some measure of influence on their treatment in the head injury service he studied, but found that the amount of influence the client should have was a source of tension amongst the healthcare staff. He emphasised that the ability of the client to choose which services they needed should influence the amount of influence that the client should have in decision-making. He reported that healthcare staff “often decide to limit the influence of the people they serve for reasons more to do with themselves than the clients they serve” (Hackman 1990 p.353).

Øvretveit (1997a) discusses how “patient power” and user participation have affected the way that professionals work together. He describes a shift in the balance of power to patients, occurring at a time when professions are becoming more realistic about what they can offer, and the increased role of users in care. Biggs (2000 p.367) makes a similar point in his assertion that “user participation suggests an increasing permeability of boundaries between professionals and non-professionals. Øvretveit (1997a) suggests that more equality between patients and practitioners can mean more equality between practitioners. He notes that the relationship between patients and practitioners has changed substantially in the last years, as more information is available to patients, with one of the effects of this increased information being the requirement for better communication between practitioners.

Approaches such as the Neuman Systems Model (described earlier in relation to the organisational context) offer methods of viewing client care in a more holistic way. Harbaugh (1994) contends that viewing individual clients in a holistic way represents the key to successful joint working, as it recognises that only a multifaceted approach to care, involving colleagues can be adequate. He presents a “model of wholeness”, encompassing physical, mental, emotional and social dimensions of life. He applies this model to the individual in context, which he contends help professionals to understand the “worldview that appreciates the interrelatedness of life” (Harbaugh, 1994 p.18).

In contrast to the substantial literature on staff working practice outlined in this review, there seems comparatively little reference in the literature relating to

patient perceptions of joint working to underpin the substantial changes in working practice and service delivery.

In a study describing patient views of joint working, Manthorpe (2003) reports that service users and carers consider that problems with joint working impact on care received. She discusses user perspectives as being ambivalent towards joint working, viewing it positively in theory, but having concerns regarding control and confidentiality. Williams and Sibbald (1999) reported that patients “don’t necessarily worry about who does the task, what they want is the task done by a competent person”. Calman (2006) reported that patients tend to focus on individual relationships with healthcare staff, and interpersonal or “human skills”, when asked to assess the care that they have received. DeBehnke and Decker (2002) reported from their review of the literature on patient satisfaction, that patients are most satisfied when they have a “lower perceived waiting time, receive information about their care, and are treated with kindness and courtesy”. Given this limited evidence of research investigating patient perspectives on joint working it is important to note the conclusion made by Banham and Connelly (2002), that in attempts to evaluate healthcare service delivery, the patient experience is the best indicator of whether a service is operating effectively.

## **2.8 CONCLUSIONS FROM REVIEWING THE LITERATURE**

This literature review has identified stroke as an area of healthcare that is adopting changing joint working practices, and has argued that currently the links between improved outcomes in stroke care and changes to working practice are unclear. The need for more substantial evidence for joint working practice



leading to either improved patient outcomes or improved service delivery in healthcare has been described. The review has explored current understandings of what joint working might mean, and has highlighted the debate concerning whether different terms describing joint working suggest that different practices can be identified. It has examined work from healthcare and from other disciplines regarding significant components that impact on joint working practice, and that may have the potential for differentiating between different types of joint working.

It has argued that there is a need for a greater understanding of these components of joint working, and a need for work to explore whether these can be used to differentiate practices. It suggests that different types of joint working practice need to be identified and fully described if links between changed practice and improved outcomes are to be explored. It also suggests that there is a need for a fuller understanding of the influence of elements of practice relating to professionalism in joint working, together with a need for further work to discern patient perspectives on joint working.

The next section will move on to consider the study that was based on the findings from the literature review, outlining the design, methodology and methods of data generation employed to address this need for further work in the area.

### **3. STUDY DESIGN**

Having outlined the broad research area and issues central to the research purpose, this section will move on to a consideration of the study design and the theoretical underpinnings for the chosen methodology. It will firstly outline the specific research questions that were formulated from reviewing the literature. From these questions it will then consider decisions regarding the chosen methods, and discuss issues of methodological rigour, before describing the methods of data generation employed.

#### **3.1 RESEARCH QUESTIONS**

Mason (2002) describes a process of moving from an understanding of the research area to formulation of research questions in terms of an “intellectual puzzle”, and the significance of the three key words “what, why and how” in formulating research questions. In this study, the literature review highlighted the “intellectual puzzle” regarding current lack of knowledge in identifying links between staff working practice and care outcomes in the field of stroke service delivery. It also identified confusion in terminology with the potential for different terminology to refer to different types of working practice. There was also the suggestion from other disciplines such as business and management that there was a need for a greater understanding of the complex elements of teamworking process in healthcare, together with a need to further explore the impact of professionalism and the service user perspective. These areas requiring further clarification suggested a number of specific research questions:

1. What are the significant elements of joint working practice with stroke patients?

2. Can the elements of practice be used to differentiate different working practices?
3. What are staff perceptions of benefits or losses associated with joint working?
4. How are working practices perceived by service users and staff members?

This study therefore sought to develop a greater understanding of healthcare delivery in the field of stroke care, by exploring joint working practice amongst staff that provide care to patients following a stroke. It sought to describe the elements of current joint working practice in detail, to explore whether different forms of working could be identified, and to gain an understanding of how joint working practices were perceived by the staff themselves and by the service users.

The investigation that was designed to address these questions consisted of three qualitative case studies, with a preliminary pilot phase to fully define the study methods. The three in-depth case studies examined staff working practice at different service locations providing care to stroke patients. As the literature review had highlighted the importance of context, the three studies were designed to encompass the different services that patients who have suffered strokes would experience as their care progressed from the initial acute stage to community care. This design section will explore the development of this plan of investigation, and discuss the theoretical underpinnings for the selection of the chosen methodology before outlining the methods that were employed to generate the data.

Morse and Richards (2002) emphasise the relationship among research questions, methods and desired results, describing “methodological purposiveness” and “methodological congruence”, as hallmarks of good qualitative research, as particular research purposes and questions lead the researcher to particular data sources and analysis strategies. With a view to achieving this, the decisions made in the design phase of this work to answer the research questions will now be considered, outlining firstly the theoretical underpinnings for the chosen research strategy.

### **3.2 METHODOLOGY**

This study utilised a qualitative approach to research design and methodology. However, using the term “qualitative” to describe the study actually “settles surprising little ... (and) covers a wide range of different activities” (Silverman, 2001 p.25). The term is often defined by what it is not; its methods are seen as the antithesis to quantitative or statistical research. There is not the space within this piece of work to discuss in detail the substantial debate concerning qualitative versus quantitative approaches. However the key issues will be highlighted in reference to decisions regarding design of this study.

Historically, the two traditions of quantitative and qualitative approaches have been seen as in opposition to each other, with researchers defining themselves in one “camp” or the other. Quantitative research was seen as the “gold standard” method, with qualitative studies dismissed as “unscientific”, and only studies measuring findings in numeric form being considered acceptable. It is being increasingly recognised however, that qualitative or quantitative approaches

should not be considered in opposition to each other, but should instead be viewed only as different strategies in undertaking research.

Meadows and Morse (1998) emphasise that the research method is determined by the research question. Methods are tools, which are available to select from, and each offers a different perspective of reality (ontology). Streubert and Carpenter (1999 p.3) describe qualitative and quantitative research as “different ways of knowing”. The researcher should therefore not be confined by being limited to a certain approach, but should select the most appropriate strategy to enable the research aims to be achieved (Meadows and Morse, 1998). This section will therefore continue by outlining the rationale behind decisions taken during the design phase, discussing the appropriateness of a qualitative methodology to answer the research questions posed.

It is suggested (Morse and Richards, 2002) that there may be two key reasons for using qualitative methods in a study. Firstly, because the research question requires it, and secondly, because the data demands it. Morse and Richards suggest that qualitative methods are appropriate in situations where: firstly, the researcher wants to understand an area where little is known or understanding appears inadequate, this is the case for the field of joint working. Secondly, if the purpose is to make sense of complex situations, this is the case for the stroke working environment. Thirdly, if the purpose is to learn from the participants the way they experience the environment, this study sought gain an understanding of service user and staff perceptions. Fourthly, if the purpose is to construct a theoretical framework, the literature review has described the debate concerning

different understandings of joint working and the need for greater understanding of the elements of joint working practice, offering the potential to develop a theoretical underpinning to the area. Finally, if the purpose is to understand phenomena deeply and in detail, as was the case for this study.

As mentioned above however, a “qualitative approach” is a broad term. Silverman (2001 p.38) discusses the difficulties in describing what qualitative research is, concluding that there is no “agreed doctrine underlying qualitative research”. He outlines different models and idioms within the field, and describes a number of preferences that qualitative researchers have: for naturally occurring data; for understanding meanings; for analysis of words and images; and for hypothesis generating research. He emphasises however, that this list of preferences is a “huge generalisation” (Silverman 2001, p38). These preferences however are able to offer a useful starting point for a consideration of the underlying rationale for this study design, and will be considered in turn.

#### **i) Naturally occurring data**

Qualitative approaches endeavour to describe social phenomena as they occur naturally; it is sometimes referred to as a “naturalistic methodology”, although Patton (2002) distinguishes naturalistic inquiry as only one form of qualitative inquiry. There is no attempt to manipulate or control the environment, or the actions of participants in the research. Qualitative approaches therefore offer the means of investigating complex social situations, such as occur in healthcare settings. They offer the opportunity to be “responsive to the needs of

respondents and to the nature of the subject matter” (Walker 1985, p.3), and are able to exploit the context of the data gathering.

For this study, the context has been highlighted as potentially important in a comparison of settings across a stroke care pathway. The literature review discussed the influence of organisational background factors as an important aspect of joint working and also highlighted the lack of evidence regarding joint working practices in the everyday healthcare environment. A qualitative methodology therefore offered the potential for exploring naturally occurring data in a working environment and gaining insight into background organisational factors.

## **ii) Understanding meanings**

Qualitative data is gathered through direct encounters with individuals. It aims to “provide an in-depth understanding of people’s experiences, perspectives and histories” (Spencer et al. 2003). Streubert and Carpenter (1999) emphasise that a qualitative methodology is particularly applicable in healthcare settings where there is a need to describe human values, cultures and relationships where subjectivity and interpretation are involved. The approach emphasises holistic analysis and explanations, “endeavouring to gain understandings of complexity, detail and context” (Mason 2002, p.3). Qualitative approaches are often referred to as being “interpretative”, seeking to understand the insider view of a social world (emic perspective). This study aimed to gain a greater understanding of staff and patient perceptions of joint working practices in the study sites, which as the literature review outlined, are a complex environment of individual

professional skills and attitudes. This suggested the need for a qualitative methodology to seek an understanding of this complex environment.

### **iii) Analysis of words and diagrams**

Qualitative research generally deals with talk rather than numbers (Pope and Mays 2000). It tends to yield large quantities of detailed data, which requires analysis, by sorting and categorisation. As the primary medium through which social interaction takes place, analysis of communication is central to gaining an understanding of a social world, such as in a context of healthcare where as the literature review outlined, communication between professionals is an important feature of care delivery. Silverman (2001) emphasises the importance of visual images in unravelling complex social processes, arguing that visual data helps to identify what is important in a context, allowing a greater understanding of a social setting. One of the primary purposes of this study was to investigate systems of communication and interaction in the study sites in order to help answer the research questions. Thus, the ability of qualitative approaches to utilise and compare different forms of evidence, offered the potential to gain a greater understanding of the social processes operating.

### **iv) Hypothesis-generating research**

In most qualitative studies there is no hypothesis produced at the beginning of the research, rather hypotheses, concepts or theories are produced (or induced) during the study. Mason (2002, p.173) argues that the main purpose of qualitative research is to “make convincing arguments” rather than seek solutions. Explanations or arguments are built from the data, during the data



gathering and/or analysis, in approaches such as inductive reasoning or grounded theory (Glaser and Strauss 1967). However, as Silverman (2001) emphasises, it is important that qualitative research is focussed, using concepts defined from a particular model. In the design of this study, the literature was reviewed to construct key concepts for the study, and to develop an understanding of the elements of joint working. The literature review highlighted the need for a greater understanding of healthcare working practice in establishing links between care and outcomes, suggesting a methodology for this study that had the potential to develop arguments and explanations regarding joint working practice.

This section began with the assertion that calling a study “qualitative” actually provides limited explanation, as there are many different forms of inquiry. Patton (2002 p.76) describes the “diverse terminology and contested practices” to be found within qualitative traditions, and emphasises how different perspectives and traditions lead to different questions and different analytical frameworks.

Patton (2002) describes one form of qualitative inquiry as being a reality-orientated approach to qualitative research, where the research questions seek understanding of what is going on in the real world, and “plausible explanations for verifiable patterns” (Patton 2002, p.91). Reality-orientated approaches endeavour to achieve accuracy and credibility of findings, and have many of the same values associated with quantitative philosophies in trying to achieve plausible claims, and rigour in studies.

Analytic induction is a type of realist-orientated approach, which begins with a proposition or hypotheses and then examines a case in detail to determine if the hypothesis is supported or not supported. Yin (1994) describes the iterative process in analytic induction of building up and testing statements or propositions, comparing against findings, revision of statements or propositions, and then comparing against other cases. Punch (1998) describes induction as central to all qualitative research, but the term “analytic induction” as describing a specific process of investigation where there is “systematic examination of similarities and differences between cases to develop concepts of ideas” (Punch, 1998, p.202).

The adoption of hypotheses or ideas prior to a study distinguishes this type of inquiry from other approaches in qualitative research, such as grounded theory, and has some shared language with post-positivistic quantitative studies and deductive methods. Punch (1998) emphasises, however that in qualitative studies there is a need for both deduction and induction, describing a “series of alternating inductive and deductive steps (Punch, 1998, p.201). Patton (2002) argues that similarities between analytic induction and post-positivistic studies associate this form of qualitative research with “accepted” and “credible” forms of experimental research, and for research such as evaluation and policy studies, where some forms of qualitative research may be demeaned, the reality orientated perspective remains widespread. This discussion of the reality-orientated approach, and in particular analytic induction will be returned to in later sections on methodological rigour and data analysis.

Qualitative approaches tend not to begin with formulation of a hypothesis to be tested, but begin with a social phenomena to explore. They “seek answers to their questions in the real world” (Rossman and Rallis, 2003). A key distinction between qualitative approaches, which begin with research questions, and quantitative approaches that begin with hypotheses, concerns the way that a priori frameworks are used. The conceptual frameworks and questions in qualitative approaches may be subject to change, modification and refinement, once the study has begun, making the approach iterative and emergent, rather than fixed and pre-defined. However as Rossman and Rallis (2003) emphasise, qualitative research should still be systematic, with a deliberate and conscious process of gathering data.

Having highlighted the need for the study to adopt a qualitative approach to finding explanations, decision-making then focussed on the selection of appropriate methods to generate and analyse data. The research questions required methods that would enable the impact of context to be discernible, that would allow comparison and contrasts to be made, and that would provide detailed, in-depth data to describe a complex real-life situation. The method was also required to have the potential to build explanations and arguments for the processes under study. A research strategy that seemed to offer the potential to fulfil these requirements was that of case studies, which will now be discussed.

### **3.3 CASE STUDIES**

Wilson et al. (2000 p.61) describe case study research as “the in-depth analysis of a single or small number of units... such as a person, an organisation or an institution”, fulfilling a main requirement for this study to provide in-depth data. Keen and Packwood (2000 p.51) propose that case studies are “valuable where policy change is occurring in messy real world settings”, as is the case in the changes to working practice for professionals working in stroke care. Yin (1994 p.13) in a comprehensive discussion of case study inquiry argues that the main characteristic of case study research is its real-life context, and that the boundary between the phenomenon and the context are not clearly evident. Context has been highlighted as a potentially important factor in this study.

In a classic text on case study research, Yin (1994) proposes that case studies are a research strategy that can encompass quantitative or qualitative methods. Stake (1998) similarly, argues that a case study is a choice of object to be studied, and is not a specific research method. Yin (1994) emphasises the importance of using multiple sources of evidence, and the benefits of prior development of theoretical propositions to guide data collection and analysis. In this study key features of working practice were highlighted during the review of the literature, which would be used to inform the study design. Rossman and Rallis (2003 p.105) describe case studies as relying on a variety of techniques, being “methodologically eclectic”, and extending comprehension of complex circumstances. Eisenhardt (2002) emphasises the use of the case study approach to understand the dynamics within settings, and the potential for theory building from case study data collection methods.

Case study designs can encompass single studies or multiple-case studies. Stake (1998) describes three different purposes for studying cases, an “intrinsic” case study, which is undertaken to gain a better understanding of an individual case; an “instrumental” study undertaken to provide insight into an issue; or a “collective case study” where an “instrumental study” is extended to several cases. Yin (1994) proposes that where researchers are seeking to study unusual or rare phenomena, single cases are the more appropriate design. Yin argues that the use of multiple-case studies enables the development of theoretical frameworks, but emphasises that each case should serve a particular purpose within the inquiry. Stake (1998), Yin (1994), and Eisenhardt (2002) emphasise the importance of selection of cases in case study research. As this investigation sought to examine joint working across a stroke care pathway three cases were selected; consisting of healthcare teams in acute care, specialist unit care and community care. The decision to use a multiple case design consisting of three separate studies will be discussed later in relation to sampling and methodological rigour.

The discussion of the study design will now move from methodology to method, outlining the methods that were employed to generate the data. The study design included a pilot phase, which was important in the development of the methods used in the main study. This pilot phase will therefore now be outlined before the main study methods are described.

### **3.4 THE PILOT STUDY**

Three thirty-minute pilot interviews were carried out prior to the commencement of the main study. There were three objectives underlying the rationale for including pilot interviews in the design. Firstly, the desirability of providing the researcher with experience of interviewing prior to the main study, to trial interview questions and method. Secondly, the opportunity to test a proposed visual image method, in order to judge whether it would be a useful data gathering tool during the main study. Thirdly, to provide the opportunity for the researcher to become familiar with recording, transcribing, and coding data using qualitative data analysis software. It was important to consider approaches to data analysis prior to the study, as there was a need to be clear how the data gathered would be analysed prior to collection.

The inclusion of a pilot phase in the study design is supported by authors such as Sampson (2004) who considers that pilots are under-used in qualitative approaches, with a tendency to link them to more positivist approaches. She particularly recommends the use of pilots to refine research instruments such as interview schedules, and this was an important consideration in the inclusion of a pilot phase in this work. Berg (1998) p.71) also supports the need for pilots in interview methods, highlighting the role of “pre-testing” interviews, to “assess how effectively it will work and whether the type of information sought will be obtained”, also “the importance of practice in order to become proficient” (Berg 1998 p.71).

As will be discussed in regard to ethics in the following section, it was necessary to develop an interview topic guide prior to commencing the study as it formed

part of the ethical approvals required. This potentially creates obstacles for qualitative studies where the ongoing iterative process may lead to change or refinement of initial research questions and methods. In order to address this potential difficulty in design, there was formulation of an interview topic guide prior to the main study as required for ethical approval, but with opportunities within the topic guide for refinement and change regarding specific questions to be asked. Specific questions within the topic guide were trialled during the pilot phase in order to develop the interview schedule for the main study.

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The participants for the pilot study were three postgraduate students studying in the department. The only requirement for inclusion was that participants had previous experience of joint working, and selection was based on the first three replies to an email request. The use of postgraduate students rather than health service workers will be discussed in the ethical approval section.

#### **i) Interview schedule development**

Berg (1998) describes the starting point for construction of an interview schedule as being the nature of the investigation and the objectives of the research. He describes the use of reading of the literature to develop general relevant areas, followed by the generation of lists of questions for each of the categories. This was the method employed for this study, where the initial phase concerned extensive reading of the literature, leading to the identification of key components of joint working. The interview schedule was then developed from these components.

It was important however to avoid developing a prescriptive interview format at this early stage, with lists of questions to be asked, as the interview methodology was designed to be a parallel method to observation, providing the means of checking observations made, and further exploring individual perceptions of observations made. Thus it was important that the interview content was able to be flexible, but it was also important that there was consistency between interviews carried out. An interview schedule with examples of questions within a semi-structured interview format offered the potential for this flexibility within an overall framework. Mays and Pope (2000) support this need to be flexible in their emphasis that qualitative interviews are unlike quantitative interviews as the order in which questions will be asked varies, the questions will vary, and further questions may be introduced as the interviewer “becomes more familiar with the topic being discussed” (Mays and Pope, 2000 p.14).

As outlined above, there were three key reasons for including a pilot phase in the design. These purposes will now be reviewed.

## **ii) Review of pilot interview objectives**

- **Increase interviewing skills and trial questions and method.**

The pilot interviews began by establishing which joint working scenario participants felt comfortable discussing. As the interview was time-limited to thirty minutes it was felt necessary to restrict discussion to a single instance of joint working in order to cover the areas outlined on the interview schedule. The interviews were tape-recorded from the point that the situation had been chosen. Mason (2002 p.75) emphasises the need to become accomplished in the



“practicalities of interviewing”, such as using the tape recorder and the first interview illustrated this need with some initial technical difficulties in using the tape recording equipment. She also emphasises the importance of good balance between talking and listening, and this was a pertinent learning point from the first pilot interview where researcher acknowledgement/agreeing expressions were found to be masking some of the participant responses in the recording.

Review of the questions asked during the interviews shows that of the eight areas on the interview schedule, six were covered in all three interviews. See Table 1. None of the interviews sought to elicit information regarding client/user involvement or communication systems. Client/user involvement could be considered to have limited relevance for the situations discussed, but the omission of communication systems was a weakness in the topic coverage and needed to be addressed in the main study.

**Table 1. Number of questions asked about each topic area.**

Interview	1. Organisation	2. Goal/Purpose	3. Conflict	4. Team process	5. Role/identity	6. Individual beliefs	7. Client/user	8. Communication system
1	5	3	4	5	8	8	0	0
2	16	1	2	7	9	4	0	0
3	5	1	1	11	4	6	0	0

The research diary records the following first interview reflections:

“Interview went all right, although time is quite short and unsure how much to let people talk and how much to keep them restricted on topic, can get some interesting comments if allow free talk”.

The interviews were of thirty minutes duration, and within that time the interviewer needed to keep some control of the interview to ensure topics were covered. Getting the balance right between restricting participant’s responses and encouraging free conversation was an important learning point for the main study.

The pilot interviews were designed to match the time planned for the main study interviews. It was envisaged that working health professionals would have limited time available, so the interview duration was kept to a relatively short time period. During these pilot interviews much of the early time was spent eliciting information about the structure and functioning of the organisation (in particular for interview 2 where 16 questions related to management structure), In the main study this information would be uncovered by informal discussion during the observation time and facts such as managerial and referral systems would not need to form part of the individual interviews (although perceptions of these systems would).

Price (2002) however emphasises the need for questions at different levels, which he terms “laddering questions”. Price recommends that interviews should start and end with questions about actions (what are you doing) as they are less invasive than knowledge questions (what do you think about), and the most invasive, philosophy questions (feelings/beliefs) which should occur in the

middle of an interview. Berg (1998) also highlights the importance of different types of questions. He recommends that “essential questions” should be combined with “throw-away questions” used to develop rapport.

The pilot supported the rationale that the primary purpose of the interview in the study design was to confirm observations made and to uncover participant’s understanding/perceptions. Observation and informal discussion would be used to gain as much understanding of the systems and issues as possible prior to carrying out interviews. An entry in the research diary following the second interview reads:

“Need to ask more about what participants think interprofessional and teamworking means, also more on role and identity, and what they would say was good or bad about their team”.

This serves to highlight the value of interviews in investigating individual perceptions, as a supplement to other forms of data gathering.

- **The opportunity to test a visual image task, to judge whether it would be a useful data-gathering tool.**

Once the situation had been selected, the investigator introduced a visual image completion task, which will be fully described in the main study methods section. The participants all were able to complete the task, with a little prompting. A lead in prompt to “draw me a diagram or picture of what the team looked like” was used with some follow up such as “if you had to put it on paper what would it look like” where participants were unsure what was being asked of them. As will be discussed later, the visual diagram completion acted as a supplement to gaining an understanding of the context that the participant was describing, as it

requires drawing of the structure of the team, and was well placed at the early stage of the interview.

Participants seemed comfortable completing it, and all returned to it without prompting at later stages of the interview to add extra points that had arisen during discussion, or to support their description. In particular it facilitated discussion of the first, fourth, and eighth areas of the interview topic guide, organisational conditions, team process and communication systems. It was felt to be a useful supplement to spoken information, offering further insight into the participant's perception of the joint working functioning, thus suggesting that it would be a useful tool to use within the main study.

- **Provide the opportunity for the researcher to become familiar with qualitative data analysis software, and data analysis.**

The three interviews were tape-recorded and transcribed in full using a memo scriber to aid transfer of spoken to written data. The word-processed transcripts were imported as individual documents into a new project in the qualitative data analysis software programme NVivo. The use of qualitative data analysis software will be explored later in this thesis. As the researcher was unfamiliar with its use prior to this study it was important to gain experience of entering data, the coding process, and in particular learning to use the software to retrieve data stored in order to begin analysis.

Having coded the pilot interview data, the options provided by the NVivo programme were explored in the areas of searching, showing and modelling.

Searching in NVivo offers a wide range of possibilities to support the analysis process with options for what and how to search, where to search and what to do with the results. It is possible to search the text, attribute values, make comparisons and look for patterns, and to examine relationships. All these possibilities were explored and practised using the pilot study data.

As the data from the pilot study was not intended to be included in the main study and participant consent precludes the reporting of the data, the results of this searching of the pilot study data will not be reported. The search tool in NVivo offers seemingly bewildering ranges of options, and it was extremely valuable to use the pilot study data to explore these prior to the main study to fully develop the data analysis strategy.

### **3.5 THE PROCESS OF ETHICAL APPROVAL**

In the design and planning of the study, ethical issues were considered fully. Ethical issues were first considered in regard to the pilot phase, which aimed to test the methodology and increase the skills of the researcher in carrying out semi-structured interviews. It was felt by the researcher to be unsatisfactory to use NHS staff time to take part in pilot phase interviews, which would not form part of the main study. By using NHS staff for this phase, it would also preclude use of a potential case study site. With a sampling frame that was small, by virtue of particular services and particular settings being specified by the research questions, and also constrained by ethical procedures discussed below, any reduction in numbers of potential sites was undesirable. For these reasons

the pilot phase was not included in the submission to NHS Research Ethics, and non-NHS participants were recruited for the pilot interviews.

The pilot phase interviews were carried out with postgraduate research students, who were studying in the researcher's department and who had previous experience of joint working. Ethical approval for the pilot phase was therefore obtained via the departmental research approval panel. The main issue in relation to ethics for this part of the study was in regard to the possibility of coercion of participants. This was addressed by using an email circular contact to potential participants, a form of contact that was non-threatening, and offered an easy option of not participating by non-reply.

As the main study was using NHS patients and staff participants, it was subject to NHS research governance procedures and ethical approval. As a multi-site study if sites were chosen within the same domain (Strategic Health Authority), one Ethics Committee would act as the Main Research Ethics Committee (MREC). If the work was considered to fall within a "No Local Investigator" remit, then research governance departments of each NHS Trust used as a study site would need to give approval, but there would be no requirement for Site Specific Assessment.

The investigation was approved by the local Research Ethics Committee, who acted as the MREC, and it was considered that the study did fall within the remit of No Local Investigator. The sampling of study sites was restricted to stroke services within one Strategic Health Authority (domain) in order to require only

one MREC, as ethical approval and Trust research governance approval was a lengthy process. By restricting the sampling frame in this way, potential difficulties can be created with generalisability of results (considered further in relation to methodological rigour), but as discussed in the section on sampling, the study used a theoretical sampling strategy, which selects study sites on the basis of pre-defined criteria. The small number of potential sites in the sampling frame had an impact on decisions regarding the pilot study, as highlighted above, but it was envisaged that there would be a sufficient number of potential study sites and diversity of sites within the one Strategic Health Authority to permit theoretical sampling to be possible.

An important ethical issue for the study related to confidentiality and the anonymity of participants, informed consent, and access to the data gathered. These issues have impacted on the way that the data is presented in this thesis, and study findings will be reported. Confidentiality of participants was crucial as information could potentially be sensitive, relating to individual views and perceptions, and to their interactions with work colleagues. As stroke services may have only a single representative from a professional group, it was important that their anonymity be protected in data gathered. In order to achieve this, the decision was made that findings from individual study sites would not be reported in isolation, but would be reported at the conclusion of the study, thereby avoiding individual sites being identifiable.

Thus, as will be reported in the findings section, whilst this work encompasses three separate case studies, the reporting of the data will not seek to identify and

describe each of the three studies individually, but will draw together the data into a single description and interpretation to preserve confidentiality and anonymity.

In approaching the sites, the researcher offered to feedback findings to sites taking part, either in writing or via a short presentation. This would only take place once data gathering had been completed and individuals could be anonymised.

Informed consent and access to data were requirements of the Ethics Committee approval, which specified the contents of patient and staff consent and information sheets. Informed consent has been an issue of debate within the field of observational studies, with discussion regarding how much and specifically what is told to participants before the study (see for example Rossman and Rallis 2003, Roper and Shapiro, 2000). Rossman and Rallis (2003 p.153) outline a continuum of overt to covert researcher roles, with different levels of how researchers portray themselves to participants. The field of ethnography, which grew from the tradition of anthropology, has long debated the ethics of covert observation, avoiding “contaminating research by informing subjects too specifically about the research question to be studied” (Silverman 2001 p.270).

In the consent and information sheets approved for use in this study, the title of the study and general purpose of the research was clearly stated, giving participants full knowledge of the research questions to be studied. Informants were also required to be given information regarding the use of tape-recorded



material, and the right to take possession and destroy this material at the end of this study if they chose.

In order to fulfil the requirements for ethics approval, it was necessary to provide full outlines of observation schedules, interview guides, and visual materials before commencing the data gathering. This use of a priori frameworks is considered by some qualitative researchers to act as “blinkers” narrowing the field of vision, and causing a researcher to view the world through a pre-determined lens. It also has the potential to impact on the iterative process of qualitative studies.

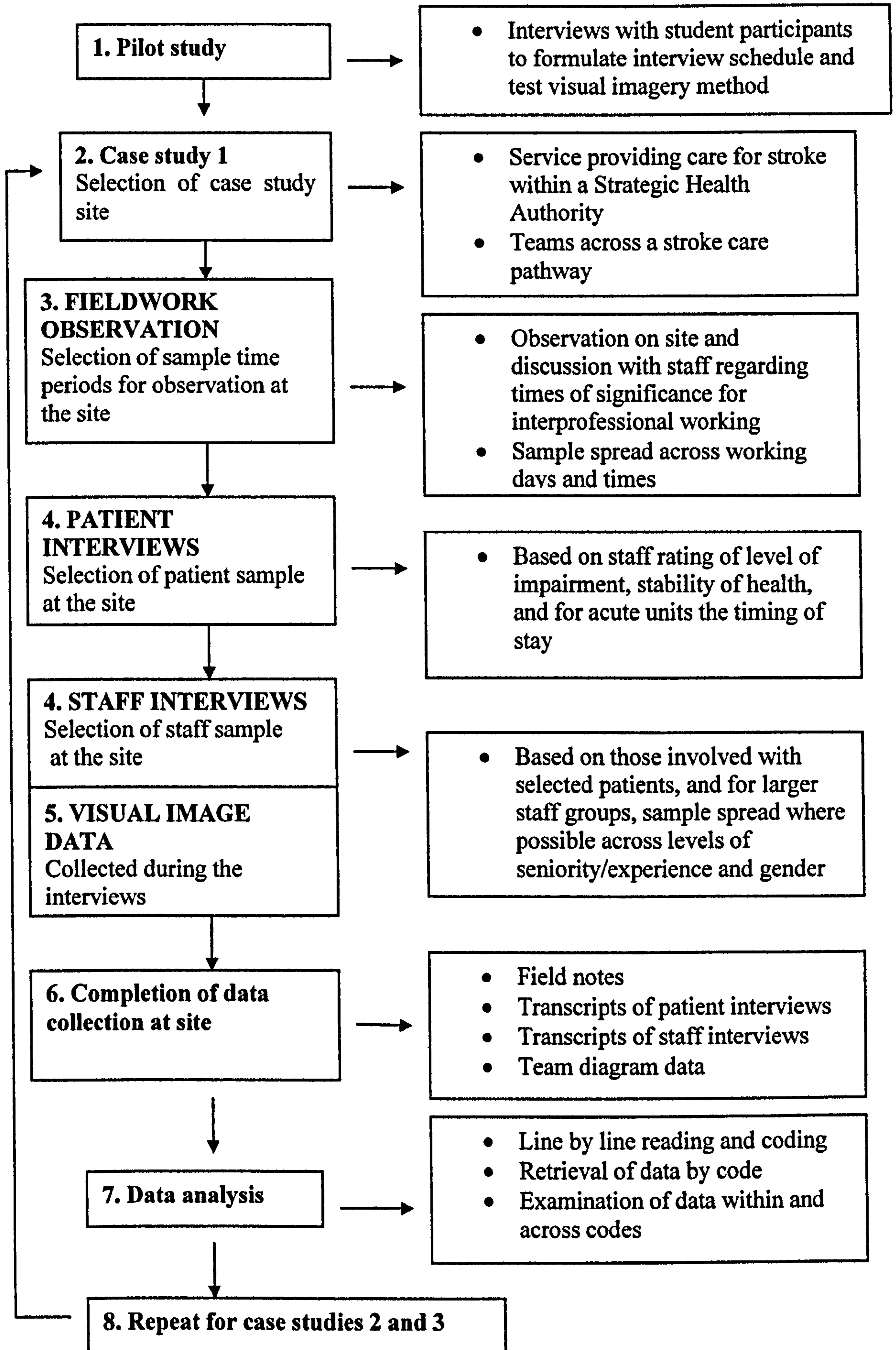
Once ethical approval had been obtained, it was necessary to obtain approval from each host site via the research governance procedures in each Trust. This required approval at Trust Board level in one instance, at medical and financial directorate level, and clearance in regard to criminal records and occupational health. Ethical issues are further described in the section that presents the findings.

### **3.6 METHODS OF DATA GENERATION**

Having described the theoretical underpinnings for the study design and methodology, and having described the pilot phase which developed and tested two of the methods of data generation to be employed, this thesis will now move on to a detailed examination of the rationale for and use of the study methods.

There were three qualitative methods employed to generate data regarding joint working practice at the study sites. As outlined previously the study utilised a multiple case study design, with phases of data gathering at the first site, followed by data analysis. This period of analysis was then followed by data collection commencing at the second case study site, and then finally the third. At each study site the same methods of data generation were used in the multiple case study design to allow comparison and contrast between data obtained from each location. The methods used for the three case studies were: firstly, fieldwork observation, secondly, interviewing, and thirdly, visual image data, which will all be described in detail in the following section. Figure 1 illustrates the process of data collecting at the three case study sites, with these three methods highlighted.

**Figure 1. The process of data collection.**



### **i) Fieldwork observation**

The literature review highlighted the need for studies investigating joint working in work-place settings. Wilson et al (2000 p.65) highlight that “participants may be asked about how they behave in certain situations, but there is no guarantee that they actually do what they say they do”. In order to gain insight into a social context at first hand it is necessary to enter the “setting”, referred to “fieldwork” by authors such as Bechofer and Paterson (2000), Burgess (1982) Rossman and Rallis (2003). Bechofer and Patterson (2000) consider that fieldwork is most appropriate where social order and culture are at the heart of a research question. They comment that “fieldwork provides the researcher with unparalleled opportunities to access these processes, and the meanings associated with them” (Bechofer and Patterson, 2000 p.97).

Mason (2002) offers a useful list of possible reasons why a fieldwork observation method might be appropriate for a study. The reasons most pertinent to this study are: an interest in the way social phenomena occur in the context of a certain setting; a belief that meaningful knowledge needs to be generated in natural or real life settings; a belief that explanations and arguments require depth, complexity and multidimensionality; a belief that the data required is not available in other ways; or finally that observation may be useful in a multi-method strategy.

Observational methods are not a single entity however. Bechofer and Paterson (2000) describe a classification developed by Gold (1958), which outlined a continuum of research from participation at one end, to observation at the other,

with two intermediate points of the participant-as-observer and the observer-as-participant. Other authors such as Atkinson and Hammersley (1998) and Yin (1994), also describe a number of different types of observation method, with a distinction between participant observation and non-participant observation being drawn. Observation methods are commonly associated with ethnography (see for example Roper and Shapira 2000), however observation can be used as a distinct method without being undertaken within an ethnographic approach (Mason 2002, Pope and Mays 2000).

During the design phase of this study, it was considered whether this work could be considered to be using an ethnographic approach. A definition of the term “ethnography” is the subject of controversy (Atkinson and Hammersley 1998). It is an approach principally concerned with culture, seeking to gain a deep understanding of beliefs and practices of a culture. Ethnography has been used to study organisations (see Silverman 2001), and seeks to understand how actions take place in a particular setting, with emphasis on rules, roles and relationships (Rossman and Rallis 2003) which could link with the research questions of this study. However, ethnographies are characterised by long-term immersion in the setting, seeking to understand social actions and what they mean to the actors involved.

Although the research questions include reference to staff and service users perspective of working practices, the primary purpose of the study is not to understand the values and beliefs of the staff studied, but to seek an understanding of one particular aspect of the settings namely staff working

practices with colleagues. Although, it could be argued that individual attitudes do have an effect on working practice as the literature review discussed, and the concept of a “team culture” is a commonly held belief. Ethnographic studies most commonly adopt a participant observation method, with some authors viewing participant observation as synonymous with ethnography (for example Roper and Shapiro 2000), a method that was not adopted for this study, which will now be outlined. The approach to observation adopted within a study is grounded in the role adopted by the researcher during the data gathering, which will now be briefly discussed.

#### **a) The role of the researcher**

As outlined above, some authors have endeavoured to draw a distinction between participant observation and non-participant observation, with the distinction relating to the role of the researcher in the field. Roper and Shapiro (2000) refer to “direct observation” as distinct from “participant observation”, and discuss the benefits of being able to change role as required. Walker (1985) describes the observer role as needing both involvement and detachment. Atkinson and Hammersley (1998) however argue that it is not possible to study the social world without being part of it. Silverman (2001 p.58) points out that “observers may change the situation just by their presence”.

Miles and Huberman (1994) discuss two possible sources of bias from “researcher effects”. Firstly, the effect of the researcher on the case (creating behaviours that would not have occurred but for your presence). Secondly, the effect of the case on the researcher (becoming involved in the site, so accepting

taken-for-granted versions of events). They suggest a number of ways to avoid these potential biases, such as taking some time to fit into the landscape by taking a low profile and keep thinking conceptually, translating personal or sentimental thoughts into more theoretical ones.

Writers such as Rossman and Rallis (2003) consider the role of the researcher to be key in qualitative studies, describing different degrees of participation, and decisions regarding how the researcher presents themselves to study participants. Mason (2002) discusses the need to consider the identity, status or role to be adopted, the impression to be created and how the researcher should act. She also highlights the importance of considering the development of relationships and gaining acceptance in fieldwork studies.

The decisions made in this study regarding the role of the researcher, hinged around the aim to focus on working practices, rather than clinical care. The study research questions focus on the ability to identify and describe the components of staff working practice, and the impact of those practices on staff and patients. It was not seeking to compare different working practices with clinical outcomes, as might an audit or a quantitative study, thus the study could be described as focussing on process rather than content of healthcare provision.

To facilitate clinical care issues remaining outside the remit of the study during the data gathering, the researcher selected an area of practice that was not an area of personal expertise. This decision was taken with regard to the fact that it precluded the ability to adopt a participant observer approach among professional

interactions. The decision to select an area outside of the researchers clinical expertise was also based on the potential for discomfort or reluctance amongst participants to be observed carrying out their practice, if they suspected that the quality of their expertise was being judged. This decision to use an area outside of the researchers expertise was supported by staff obvious relief when informed of the researchers clinical area once on site, when they expressed nervousness regarding being watched. Also, at the pre-entry meetings with the study sites to discuss their participation, the nature of the researchers clinical area of expertise was always sought by staff.

It could be argued that the role adopted during this study was significant in that as a qualified speech and language therapist the researcher was presented as a fellow healthcare professional, as well as a researcher. This dual role may have been influential in agreement by the sites to allow access, and in staff agreeing to participate in individual interviews as the “fellow professional” role may have been less threatening than the “researcher role”. This potential influence of the researcher role in this study will be further discussed in the evaluation of the methodology section.

#### **b) Field notes**

Written field notes are the material from fieldwork observations that is the data for analysis. Roper and Shapiro (2000 p.84) describe the need within the research experience to document “observations, conversations, feelings, and interpretations in field notes”. They report that researchers develop their own style of writing field notes, but emphasise that memory should not be relied on.



Pope and Mays (2000 p.35) also emphasise that clear and systematic recording is essential, and that memory needs to be aided by jotted notes made during observation whenever possible. Burgess (1982) identified the basic principles of writing field notes to be: setting aside a regular time and place; entries should contain date, time, location and details of those present; the researcher needs to consider what is being recorded and what omitted. Burgess distinguishes three main types of field notes. Firstly, substantive; giving details of events, informants, and the circumstances of the data. Secondly, methodological; including records of personal impressions of the situation and personal involvement, and the research experience. Thirdly, analytic field notes; containing some preliminary analysis.

Eisenhardt (2002 p.15) emphasises the importance of frequent overlap of data analysis with data collection, with field notes being “an important means of accomplishing this overlap”. Silverman (2001) echoes this need for analysis at an early stage in data gathering, suggesting that data are gathered and indexed in broad categories, requiring the research problem to have been carefully defined. He recommends the use of computer software programmes for this initial filing and indexing.

Authors such as Pope and Mays (2000) suggest that the recording of data can be structured around a list of items to observe and describe, using a coding form, although Silverman (2001) highlights the important argument that this could lead to a conceptual grid being formed which is hard to escape from. He recommends that if the structured approach is used it is important to return occasionally to the

original data to see if it could be reread in a different way. An alternative approach that is also suggested by Pope and Mays (2000) is to focus on critical incidents, as “it is a mistake to think that the observer will necessarily capture everything” (Pope and Mays, 2000 p.36).

Streubert and Carpenter (1999) identify two important principles in field note recording; the ‘verbatim principle’, and the ‘concrete principle’. The verbatim principle reflects the need to use the speaker’s exact words; the concrete principle requires that records should be documented without interpretation by the researcher. Roper and Shapiro (2000) suggest that keeping two separate notebooks enables researchers to separate these exact descriptions from interpretations, feelings and analyses. Pope and Mays distinguish these two different types of work as ‘field notes’ and a ‘field diary’ Rossman and Rallis (2003) refer to them as ‘the running record’ and “observer comments’. Roper and Shapiro (2000) suggest dividing a notebook in half lengthwise, with running notes on the left hand side, leaving space for analytic ideas, inferences and comments on the right hand side. They suggest the use of recognised notations, developed by Strauss and Corbin (1990), of using quotation marks for exact recall, apostrophes when paraphrasing, and no marks for recollection.

Where possible, audio recording may be used to supplement written notes to aid accuracy of recall (Silverman, 2001). This technique is used most commonly in the second of the research methods selected, that of interviewing, which the study employed as another method of data generation in a multi-method design.

## **ii) Interviews**

“Interviews are one of the most commonly recognised forms of qualitative research method” (Mason 2002). She suggests that interviews should be used: where research questions concern a need to explore participants perceptions, experiences or understandings; where the study seeks evidence of context and situation; where a study lays emphasis on depth, complexity and roundedness in data; and where interviewing may be used as one of several methods to explore research questions. All of these rationales were applicable to this study.

Silverman (2001) provides a comprehensive overview concerning debates regarding the “truth” of interview data, concluding that interviews offer a rich source of data in relation to individual understanding of the “world they describe” (Silverman 2000, p.113). Berg (1998) discusses different types of interviews according to the formality and structure of the interview format. The less structured the interview, the less the questions are determined and standardised before the interview begins (Pope and Mays (2000). Bechofer and Paterson (2000) stress that it is essential to do a number of pilot interviews in order to achieve competence and test the interview schedule. This recommendation was followed during this study, with three pilot interviews carried out on non National Health Service participants prior to the main study (as discussed in the pilot interview section).

In this study the semi-standardised interview format was selected, involving the implementation of “a number of predetermined questions and special topics” (Berg, 1998 p.61), which were devised from the key features of joint working

identified in the literature. Interviews were considered to be an appropriate research method to gain individual perspective and understanding of working practices, which would offer an important addition to the observation method. Semi-structured interviews offered the opportunity to check and gain further understanding of observations made, although as Berg (1998) describes, during the course of field research “unstructured interviews” can be a part of the observation method, akin to social “chit chat” between researcher and participants. The more formal semi-structured individual interview however, would be an opportunity to seek data that could be potentially more sensitive, and not forthcoming in the social environment with colleagues present, it would also provide the opportunity to seek “visual image data” (Silverman 2000) described in the next section.

### **iii) Visual image data**

Silverman (2001) emphasises the potential use of visual phenomena in qualitative studies. In this work two forms of data, which could be considered “visual” or “written” were proposed in the multi-method approach. The two forms were a diagram of teamworking, and a contact diary of individual interactions during a specified time period. The team diagram was drawn from work by Isard et al. (1987), who developed exercises for nurses to improve joint working skills. Also from the work of Payne (2000), who used a networking diagram model to describe different forms of professional interactions.

The contact diary was drawn from the work of Borque and Back (1982) and Burgess (1982) in relation to time sampling (discussed previously), where

routines may be identified in the research setting and observation focussed on behaviours at specified periods. In order to capture data occurring outside these specified times, which would otherwise be lost, it was proposed to ask participants to self-record behaviours outside these time-sampled periods. As with the interview method above, asking informants to self-record raises questions of “truth” and individual perception. As this study was investigating an area of depth and complexity, these different forms of evidence were intended to be used to inform understanding of the social situation, and for comparison and contrast, which will be discussed further in relation to methodological rigour.

#### **iv) Methodological rigour**

In qualitative research the researcher is the instrument by which data is gathered (Morse and Richards 2002). Silverman (2000) quotes Max Weber (1946) who pointed out that all research is contaminated to some extent by the values of the researcher. Wellington (2000 p.42) refers to the “researcher effect”, declaring it is time “to bury the myth of the neutral observer”. Miles and Huberman (1994), as outlined previously, offer suggestions as to how researcher bias may be reduced. They describe fieldwork experiences as “inevitably framed by our implicit concepts” (Miles and Huberman, 1994 p.9). Dey (1993 p.18) describes observations as “concept-laden abstractions from the flow of experience”.

Qualitative methodology is often criticised for lacking rigour, having an anecdotal quality, and failing to be representative. Gibbs (2002, p.5) discusses the underlying philosophy of qualitative research as being idealism, that “the external world consists merely of representations” and that there are different

views about what really exists. This is in contrast to quantitative realism approaches, which assume that there are indisputable facts and the task of research is to discover them. As outlined previously this study was embedded within a reality-orientated approach, which shares a quantitative goal of methodological rigour, seeking to uncover plausible explanations for verifiable patterns. In this form of qualitative inquiry there is a concern with getting as close as possible to what is going on in a setting, seeking confirmability, credibility and dependability of findings (Patton, 2002), but unlike quantitative studies, recognising that subjectivity and judgement are an inevitable part of the research process.

The two central concepts used in any discussion of rigour in research are firstly, “validity”, referring to the truth or credibility of a claim (internal validity) and the extent to which the findings can be generalised (external validity). Secondly, “reliability”, referring to the extent to which a study could be replicated, with both of these terms being drawn from quantitative methodology. Some qualitative researchers (for example Lincoln and Guba 1985) have argued that these terms are not appropriate for evaluation of qualitative studies, that positivist notions of reliability and validity contradict qualitative assumptions of reality. They replaced these terms with “truth value”, “applicability”, “consistency” and “neutrality”.

However, there is increasing recognition that although reliability and validity are problematic concepts, to claim that they have no place in qualitative research “is to place the entire paradigm under suspicion” (Morse and Richards 2002 p.168),

and as highlighted previously within a realist-orientated approach the need to provide credible explanations is paramount. Meadows and Morse (1998) developed the concepts of “verification”, “validation” and “validity” as a means to ensure rigour in qualitative studies. Spencer et al. (2003), in their “Framework for assessing research evidence”, discuss the wide range of “positions” regarding quality criteria for qualitative research. They developed alternative quality criteria of “the defensibility of approach”, “the rigour of conduct”, “the relationship of the researcher to the researched”, “the credibility of claims”, and “the broader impact and contribution of the study”.

Morse and Richards (2002) describe the key methods to ensure rigour as being; appropriate preparation; appropriate review of the literature; using appropriate methods and design; thinking qualitatively and working inductively; using appropriate sampling techniques; being responsive to strategies that are not working; appropriate pacing of the study; and finally coding reliably.

The notion of generalisability and representativeness is similarly controversial in relation to qualitative studies. Bechofer and Paterson (2000) contend that issues regarding representativeness can be resolved by a process of “comparison and control”. Silverman (2001) proposes that problems related to generalisability can be resolved by sampling procedures. Wilson et al (2000 p.57) however state that where sample groups are small “generalisability to a wider population is not an aim”.

As has been argued above, sampling strategies are important in a consideration of generalisability. This section will therefore now move on to a discussion of the sampling procedure, before continuing the discussion of validity and reliability more specifically in regard to the data generation methods employed, describing how these issues were considered in the study design.

### **a) Sampling**

“In order to develop and apply a workable method, it is necessary to have a well-defined population” (Borke and Back, 1982 p.91). However, research usually involves some form of sampling or selection from the population in order to address practical resource-based issues, and to achieve focus, which is particularly important for qualitative research, which is “about depth, nuance and complexity” (Mason, 2002, p.121).

This study required a number of decisions to be made regarding the selection of data to be studied. The literature review determined the population to be studied, namely services providing care to stroke patients. There was the requirement that services should be studied in different contexts, with care for stroke patients being provided in different contexts along a care pathway from initial in-patient admission to a hospital ward, to transfer to a specialist rehabilitation unit, and then discharge into the community. The first stage in the sampling strategy was therefore to select the sites for study across the care pathway.

Pope and Mays (2000) describe qualitative research as typically using a purposive sampling strategy:



“to select a group or setting, usually informed by prior knowledge and theoretical work, which is likely to demonstrate salient features and event or categories ... related to the research question” (Pope and Mays, 2000, p.34).

Silverman (2001, p.250) describes purposive sampling as “allowing us to choose a case because it illustrates some feature of process in which we are interested”. Some authors (such as Mason, 2000) use the term “purposive sampling” as synonymous with “theoretical sampling”, a term used in grounded theory (Glaser and Strauss, 1967). This approach makes selection on the basis of relevance to the argument or theory that is being developed, to “choose cases that are likely to replicate or extend the emergent theory” (Eisenhardt 2002, p.12).

In support of this need to link theory to sampling strategy, Silverman (2001) argues that sampling in qualitative research should all be theoretically grounded; by choosing cases in terms of theory; choosing ‘deviant’ cases, and modifying sample size during the research if required. He states that “purposive sampling” should only be used when “the purpose behind purposive sampling is not theoretically defined” Silverman (2001, p.251). Yin (1994) argues that selection of cases for multiple-case study should not follow a “sampling strategy”, but instead should use a “replication” logic, whereby cases are selected on the basis of either predicting similar results (literal replication), or producing contrasting results (theoretical replication). Eisenhardt (2002) also emphasises that the goal of theoretical sampling is to choose cases that are likely to replicate or extend theory. Miles and Huberman (1994) also agree that the choice of cases in multiple-case studies is made on conceptual grounds, adding confidence to the findings by looking at similar and contrasting cases. Morse (1998) considers the central principles to sampling in qualitative research to be “replication” and

“confirmation”, whereby inquiry is verified vertically (by replication) and laterally (by completeness).

For this study, sampling from the population of stroke services was carried out on the basis of theoretical (purposive) sampling. The sampling frame was defined by ethical requirements (outlined in the previous section), to services within a single domain (Strategic Health Authority). For convenience purposes this was required to be located within easy access of the researchers home and employment location. Within this frame, sampling was based on the requirement to have different contexts represented, where care for stroke patients was provided. The literature review highlighted the importance of the organisational context in joint working practice, and the tendency for studies investigating working practice in stroke to be conducted in hospital settings. As stroke care may be provided in acute hospitals, in specialist rehabilitation units, and outside hospitals in community care settings, these three contexts therefore needed to be included in the multiple-case study design in order to achieve completeness in sampling.

A second element to sampling was in relation to time. Borque and Back (1982 p.93) describe time sampling techniques as “structured but flexible methods to measure behaviour”. They outline the use of time-place observations, and diary methods to give an overview of behaviours under study. Mason (2002) describes decisions that need to be made regarding time and space. Burgess (1982 p.77) emphasises that within a social organisation activities may vary with time, describing time sampling as “a means by which the researcher can gather detailed systematic data in a social setting”. Burgess (1982) discusses the

importance of researchers considering the time dimension in fieldwork, highlighting the example of routines and shift systems in hospitals, which is of importance for this study. Pope and Mays (2000) emphasise that it is important to consider the representativeness of periods spent in the chosen setting. They stress the need to ensure adequate coverage of different time periods, collecting data on different days or at different times.

The design of the study incorporated two phases within it in response to this need to consider the time dimension. The initial preparatory phase of data gathering was intended to inform the time sampling which occurred in the second main phase. As with the need to sample working practices in relation to an identified sample of patients in order to give depth to the data, so it was necessary to sample time periods for detailed analysis. So an initial one-week preparatory phase was included in the design, before time sampled data was gathered during a second one-week time period.

A further sampling decision was in relation to sampling of individual patients that would form the focus of data gathering at the study sites. Yin (1994) describes “embedded” case study designs, in which there can be different units of analysis within a larger case unit, offering opportunities for further analysis. Focussing the investigation of joint working practices around care of individual patients enabled the study to achieve depth of analysis. Selection of individual patients was based on the principles of being “information rich” (Morse, 1998), meaning exemplifying characteristics of interest, and finally, “maximum variety

sampling” (Morse, 1998), deliberately selecting as heterogeneous a sample as possible. Morse, (1998) describes a good informant as:

“One who has the knowledge and experience the researcher requires, has the ability to reflect, is articulate, has the time to be interviewed and is willing to participate in the study” (Morse 1998, p.73).

The most significant of the above factors for this study is the “articulate” factor, as patients in the study sites chosen, by virtue of their presence in a stroke service would potentially have impairments of communication associated with a stroke. Patients with communication difficulties present a challenge to researchers, and may often be deliberately excluded from studies. As the researchers background is in working with clients with communication difficulties, it was intended that these patients with communication difficulties would be able to form part of the study group.

Maximum variety sampling was used to include participants with a range of healthcare needs following stroke, as severity of impairment could potentially be an important factor in the number of staff members involved in care, and objectives or purpose (two of the main factors in joint working identified in the literature review). For each case study site one patient with mild impairment, and one patient with a moderate or severe impairment (judged by the staff) was selected, and on the principle of information rich sampling, a third patient was selected as holding potential interest for the study.

Linked to the sampling of individual patients was sampling of staff working within the services studies. Sampling of staff for individual interview was on the basis of those providing care for the patients selected, and in the case of larger

staff groups such as nursing on the basis of maximum variety sampling, selecting a range of seniority/experience and gender. Although the interview data was sampled, the observation method employed meant that joint working practice for all staff was part of the study data.

## **b) Validity**

Maxwell (2002) outlines five categories of validity in qualitative studies: descriptive validity, a concern with factual accuracy; interpretive validity, what the meaning of settings is for the people in them; theoretical validity, an account's validity as a theory of some phenomenon; evaluative validity, the application of an evaluative framework to an account; and generalisability, the extent to which findings can be extended.

Authors such as Yin (1984) argue that a case study approach can address issues of validity. Yin proposes that construct validity issues (such as using subjective measures) can be addressed by using multiple sources of data, by establishing a "chain of evidence" during data collection, and by using informants to review draft reports, referred to as respondent validation or member checking (Pope and Mays 2000). Silverman (2001) however rejects respondent validation as an approach to establishing validity, arguing that it can suggest interesting paths for further analysis, but cannot be taken as validation or refutation of researcher inferences. In addition to asserting that a case study approach can address construct validity issues, Yin (1984) considers that external validity (generalisability) issues can also be addressed in case study research by using replication (more than one case study). Miles and Huberman (1994) whilst

supporting the use of multiple case studies, emphasise that by using multiple cases the qualitative researcher is not seeking generalisability to a larger universe, but is generalising from one case to another on the basis of a match of underlying theory.

Other authors take the view that rather than aiming to enhance generalisability by multiple case studies, they argue that the notion of generalisability, is an inappropriate concept to use in qualitative research, preferring to consider “in what sense a case study is representative” (Bechofer and Paterson (2000 p.48). They argue that using theory and an iterative process to guide the choice of cases to be studied achieves the goal of comparison, making it possible to say what the study is “a case of”. Silverman (2001) in similar vein describes the constant comparative method, in which investigators find another case to test out provisional findings, and also highlights the importance of deviant-case analysis, whereby researchers actively seek out cases or data which are contrary to previous findings. This is a technique commonly used in a grounded theory approach (Strauss and Corbin 1990). Sartre (1981) quoted in Denzin and Lincoln (1998 p.x14) states that:

“No individual or case is ever just an individual or case. He or she must be studied as a single instance of more universal social experience... to study the particular is to study the general”.

Meadows and Morse (1998) use the three terms “verification” (ways to ensure validity), “validation”(evaluation during the project inquiry), and “validity” (standard of the completed project). They suggest that verification can be achieved by using a literature review to inform the research, clear study design, the use of prior knowledge to test the emerging data, by sampling strategies such

as replication and theoretical sampling, and by ensuring that the sampling strategies fit the method used. They suggest that validation is supported by using multiple methods, use of two researchers coding, computer assisted data analysis, checking back findings with participants, and an audit trail. Having instigated means to achieve verification and validation, the outcome of validity is achieved by demonstration of trustworthiness.

In a comprehensive discussion of rigour in qualitative research, Silverman (2001) identifies appropriate methods for validating studies to be; analytic induction; the constant comparative method; deviant case analysis; comprehensive data treatment and using appropriate tabulations. Gibbs (2002 p.157) highlights the importance of checking for threats to validity by “inspecting the circumstances of the study as widely as possible” by for example assessing whether the setting is unusual, or events happen at an unusual time.

Authors such as Yin (1984), Bechofer and Paterson (2000) Pope and Mays (2000) advocate the use of multiple methods of data gathering in order to achieve greater validity. Triangulation is then used to compare data gained from these methods. Cohen et al. (2000) define “triangulation” as the use of two or more methods of data collection”. He lists six different types of triangulation, with methodological triangulation being one, which he describes as being either the same method on different occasions or different methods on the same object of study (referred to as a weak form and a strong form of triangulation by Bechofer and Paterson 2000).

The use of triangulation is also advocated by Yin (1994) who describes it as leading to a convergence of multiple sources of evidence. He concludes that triangulation addresses difficulties of construct validity as it provides multiple measures of the same phenomenon. Cohen et. al. (2000) list the most appropriate uses of triangulation, including: when a more holistic view is sought; where complex phenomenon require elucidation; where controversial aspects are to be studied; and in case study research.

In contrast to these advocates of triangulation, Mays and Pope (2000) contend that triangulation is controversial as a test of truthfulness or validity. They suggest that its main function is as a means of ensuring comprehensiveness of a set of findings. Silverman (2001 p.233) states that triangulation is “usually inappropriate” to qualitative research, arguing that different methods cannot give an objective “truth”, and that it is difficult to combine data into an overall whole. He concludes that by “counterposing different contexts” researchers are ignoring the context bound elements of social interaction. Morse and Richards (2002 p.78) are also critical of “misuse of the term triangulation”. They argue that using multiple data sources in a single study is not an example of triangulation, but that separate completed studies are required to gain the multiple perspectives necessary.

### **c) Reliability**

Mays and Pope (2000) stress the importance of a clear account of data collection and analysis in order to aid judgements regarding quality of a study. Silverman (2001) echoes this in his assertion that readers of qualitative research require



extended extracts from field notes, information on how field notes were recorded and in what contexts, and that reliability would be aided by using standardised methods to write field notes. Yin (1984 p.37) also advocates the clear documentation of research procedures in case study methods by using a case study protocol and by “conducting the research so that an auditor could repeat the procedures”. Wilson et al. (2000 p.151) discusses issues in reliability of qualitative studies in terms of the naturalistic view of the world as continually changing, and observer effect in observational studies, “meaning the same thing on different occasions may not actually mean the same thing for the people involved”. This makes change inevitable, causing dependability to be a problem. He suggests that multiple examples can give evidence of continuity or consistency.

#### **d) Conclusions**

Within the reality-orientated philosophy underpinning this study, the importance of methodological rigour to increase plausibility of findings was recognised and the objective was to get as close as possible to an understanding of the reality of the cases studied. In order to achieve this the design of this study utilised a multi-method approach, which some authors would argue contributes to establishing validity if the data from each approach is compared and combined. The primary aim of using multiple data gathering methods however was not in order to be able to make comparisons, but as has been outlined in previous sections, it was believed that each method had its purpose and was able to contribute to a greater understanding of a complex phenomenon, helping to answer the research questions. The use of a number of case study sites, and in

particular the adoption of theoretical sampling incorporating principles of comparison, and maximum variation were important in the sampling process. Schofield (2002 p.184) supports this, concluding, “study of several very heterogeneous sites would be more robust...than one emerging from very similar sites”.

The study endeavoured to select appropriate methods for data generation in line with the recommendations of Morse and Richards (2002) for methodological purposiveness and methodological congruence, and to make the rationale for selecting these methods explicit. In subsequent sections, there will be an emphasis on making data gathering and data analysis explicit to aid reliability as authors in the previous section suggest. Silverman (2000) highlights the importance of clear strategies in relation to validity and reliability, which will now be discussed in the following section, starting with theoretical underpinnings to the chosen data analysis strategy.

### **3.7 DATA ANALYSIS STRATEGY**

#### **i) Theoretical underpinnings**

Qualitative methods yield large amounts of unstructured data, with much of it being text based. The qualitative researcher needs to transform this “unstructured and unwieldy” material (Ritchie and Spencer, 2002) into a coherent and structured data set. Miles and Huberman (1994, p.2) argue that there is a need for clarity in analysis of qualitative data in order that quality of the research findings may be judged. They are critical of researchers who “still consider analysis an art form and insist on intuitive approaches to it”. Rossman

and Rallis (2003, p.272) propose that “analysis starts when you frame the research questions”. They outline the following key pointers to data analysis. Firstly, refer to the conceptual framework, but be open to new insights. Secondly, keep the research questions in mind. Thirdly, write all the time, analysis is better as an ongoing process. Finally, talk through your ideas, read what others have said, and be creative.

Other authors such as Denzin and Lincoln (1998) echo the need for data analysis to begin shortly after data collection commences and emphasise that it should continue as a concurrent process. Miles and Huberman (1994) view qualitative data analysis as consisting of three concurrent flows of activity: data reduction; data display; and conclusion drawing. Data reduction is the process of selecting, focussing, simplifying, abstracting and transforming the data. They describe the sequence of data analysis as: affixing codes, noting reflections, sorting and sifting through materials, isolating patterns and processes, elaborating a small set of generalisations, and confronting those generalisations with constructs or theories. Dey (1994) similarly describes qualitative data analysis as concurrent flows of activity, referring to a circular or a spiralling process between related processes of describing, classifying and connecting, which requires a “dialectic between ideas and data” (Dey, 1994 p.7).

An alternative term used to describe data analysis is “pattern identification” (Rossman and Rallis 2003). This term is important in its recognition that all researchers enter the field with a perspective that underpins the conceptual framework to be used in analysis of the data, thus rejecting the notion of

complete investigator neutrality. Rossman and Rallis distinguish two types of pattern matching: firstly, categorising strategies; which code and sort data, seeking similarities and differences, and secondly, holistic strategies which are more descriptive and offer narrative portraits, but accept that these strategies can be combined or blurred.

Mason (2002 p.150) uses the term “indexing” to describe analysis, suggesting that the key feature of all data analysis is “devising a consistent system for indexing the whole of a data set according to common principles”. Once indexed, the next stage is the retrieval of elements of the data for further analysis and manipulation.

The most common term used to describe the qualitative data analysis process is “coding”. Coding is the process of linking elements of text to theoretical or descriptive ideas, the building up of a “conceptual schema” (Gibbs, 2002). The term is however not unique to qualitative research. In quantitative research coding refers to the giving of a name to an extract of text so that extracts can be counted. In qualitative research in contrast, “the very process of identifying and connecting the passages of text and clarifying the concept ... is an important part of the analysis. (Gibbs 2002, p.58). Morse and Richards (2002, p.111) emphasise that there are different ways of coding but all “have the purpose of allowing the researcher to simplify and focus on specific characteristics of the data”. They distinguish three types of coding: topic coding; descriptive coding; and analytic coding. Topic coding, as the name suggests, refers to gathering material by topic, bringing sections of text associated with a particular topic together into a

named topic file to seek patterns in the data. Descriptive coding refers to information about the data gathered, such as research participants, places, or sites. The third type of coding, analytic coding, goes beyond the gathering and storing of data by topics, to a process of “creating and developing abstractions from the data” (Morse and Richards 2002, p.113).

Other authors also distinguish different types of coding, for example Miles and Huberman (1984), however in contrast to Morse and Richards (2002) who see “analytic coding” as a type of coding, they regard all coding as analysis. They highlight that “it is not the words themselves but their meaning that matters” (Miles and Huberman 1984, p.56) and that words have different meanings according to their context. Although emphasising that all coding is analysis, Miles and Huberman (1984 p.57) identify different levels of interpretation or analysis. Descriptive codes, where there is little interpretation, interpretive codes, and pattern codes which are “even more inferential and exploratory”.

So, although Morse and Richards (2002) and Miles and Huberman (1984) at first seem to be differing in their approach, both sets of authors are referring to the processing of data at different levels of meaning. From a purely descriptive method, which may be seen as a more surface analysis, to a deeper analysis where the researcher as the instrument of the analysis has a greater role in forming conclusions from the data. This “deeper analysis” is then where quantitative notions of validity and reliability may become more problematic, and further highlights the need for transparency and detailed outlines of the analytic style employed by qualitative researchers.

The qualitative literature (for example Gibbs, 2002, Morse and Richards, 2002) also emphasises the diversity of different approaches to qualitative data analysis, and the need for congruence between the method and the approach to data analysis. One of the key areas of difference between strategies concerns the method of creating codes, and whether to build codes inductively from the data (as in grounded theory methods) or whether to create codes based on a priori frameworks. Miles and Huberman (1984) report that their preferred method of creating codes is to create a “provisional start list” of codes prior to fieldwork. Patton (2002) refers to “sensitising concepts” – concepts that the analyst brings to the data.

Rossmann and Rallis (2003) describe a continuum of analytic frameworks, with variation in degree that researchers use prior conceptual frameworks. They recognise two sets of analytic strategies, one they refer to as “categorising strategies”, where the emphasis is on the development and presentation of analytic categories, and the other “holistic strategies” which are more descriptive, focussing on connections among the data in its context. They describe case study data analysis as requiring both categorising and holistic data analysis. Focussing holistically on an organisation, but with research question specifying the focus more closely and providing categories for analytic thinking.

In a discussion of different qualitative data analysis styles, Gibbs (2002, p.157) identifies methods which he terms “structured analysis”, which are “based on the idea of collecting and analysing data in a particular way”, and are “concerned with careful examination of the data for threats to validity” Gibbs (2002)

describes one of these approaches as “pattern matching” where a pattern of results is compared with a pattern predicted on the basis of previous knowledge and/or theory. The data is examined to see which theory best fits. The style may be linked with the multiple case study method employed in this study, which seeks to reduce threats to validity by replication, and where data is linked to specific cases. It is an approach usually referred to as analytic induction which uses cross case analysis to seek explanations (Patton 2002). Analytic induction was briefly described earlier in relation to the reality-orientated study philosophy, and the approach of examining prior hypotheses in relation to emerging data collection and analysis.

Other authors have described similar structured analytic styles. Miles and Huberman (1984) for example describe a strategy, which they call “pattern coding”, a means to identify emergent explanations, and themes. They describe this strategy as “meta-coding” to move data analysis from description to explanation. They identify a particular use of pattern coding in multiple case studies, where “it lays the groundwork for cross-case analysis by surfacing common themes and directional processes” (Miles and Huberman, 1984 p.69). Pattern codes are generated by looking for threads that tie together bits of data, by chunking and sorting data together. They are typically causes/explanations, themes, relationships or more theoretical constructs, which may be mapped on a visual display. As new data collected is added, patterns are checked to see if they hold for the new data, and rival explanations checked in a similar iterative process to analytic induction discussed earlier.

For this study where a priori features of joint working have been suggested from reviewing the literature, and where a number of potential frameworks to explain the relationship between terms have been developed, the principles of pattern matching and analytic induction were influential in the data analysis strategy. It was considered that these approaches would be helpful in achieving the aim of making comparisons between the types of data generated, and between the study sites with a view to generating explanations. Rossman and Rallis (2003) refer to the need for studies such as this one, which seek to compare and contrast to use categorisation strategies, to compare and contrast and to seek ideas and categories, with an emphasis on pattern identification over awareness of detail. However the awareness of detail is a critical aspect of any qualitative approach and is needed in order to avoid criticism of an approach to data analysis, which Morse and Richards (2000) reject as usually ending at a descriptive level without adding insight or understanding or creating theory.

Another approach that was influential in formulating the data analysis strategy for this study originates from the work of Ritchie and Spencer (2002). They describe a “framework” method of qualitative data analysis developed for applied policy research, which employs a structured analytic style. Pope and Mays (2000) describe this approach as tending to have more structured data collection, with an analytic process that is more explicit and informed by a priori reasoning than much other qualitative research. The process has echoes of a pattern matching approach, consisting of stages described as familiarisation with the data; identification of a thematic framework including emerging issues concepts and ideas; indexing where the framework is applied to the data; charting



of data using either themes or cases; mapping and interpretation of the data as a whole.

However, in contrast to the method employed in this study, in the Framework approach, the initial elements or topics emerge from the data in terms staying close to the data set because “imposition of concepts from existing literature related to the research topic...will distract analytical thinking at this stage” (Ritchie and Spencer, 2002). Thus whilst the approach was influential in suggesting a structured data analysis, the approach employed for this study was more open to the influence of concepts from the literature, particularly in its use of the “start framework” derived from the literature and the pilot study.

Morse and Richards (2002) consider the most crucial aspect of data analysis to be “abstracting”, the building of understanding from the data, and as outlined above are critical of approaches which seek to describe rather than analyse. They describe a process of “categorizing” followed by “conceptualizing” whereby researchers “think up” to higher level and more abstract concepts to build theories. They recommend the use of memos to store ideas, topics, themes and concepts as a study progresses. They highlight the need to record ideas and changes to ideas emerging, with modelling and visual display to assist the abstraction process, and support the use of computers to aid in processing and retrieval of data, which will be considered in the following section.

## **ii) Computer-aided qualitative data analysis**

The use of computers in qualitative research has been the subject of some controversy, with concerns being raised about the dangers of “more mechanical approaches to analysing qualitative data displacing traditional techniques” (Dey, 1993, p.4). Kelle (1997) discusses the fear amongst some qualitative researchers that the use of computers goes “against the methodological and theoretical orientations qualitative researchers see as the hallmark of their work”. Kelle argues that these fears have been created by misperceptions regarding the role of computers in data analysis, and that to use terms such as “computer-aided qualitative data analysis” is misleading. He reports that misunderstandings have been created by qualitative researchers endeavouring to represent the use of computers as achieving quantitative ideals of objectivity, rigour and statistical analysis, when the reality is that they are tools for “data storage and retrieval rather than tools for data analysis”.

Gibbs (2002, p.xxi) describes the advent of the use of computers in qualitative research as “nothing more than the fact that now almost everyone uses a word processor”. Gibbs (2002, p.11) describes the function of qualitative analysis software as “essentially a database”, highlighting that “the programme will never do the reading and thinking for you”.

Authors such as Silverman (2001) suggest the use of computers at the data gathering stage to aid in filing and indexing. Kelle and Laurie (1995) suggest that computer aided data analysis can aid validity of research findings by providing a stable coding system, enabling retrieval of all instances of particular piece of information. Lacey and Duff (2001) summarise the uses of computer

data analysis as data storage and management, data searching and retrieval, coding, developing and testing theory, and production of reports. Gibbs (2002) identifies the key use of computers as an effective way of handling data, enabling coding and retrieval of texts, to enable a researcher to examine features and relationships in the text.

As this study had the potential to generate large quantities of text material, from field note observations and from individual interviews, it was felt that the use of a computer software package would be helpful in the process of data storage, coding and retrieval. Lacey and Duff (2001) consider there to be three main packages used by researchers in a healthcare context, NUD\*IST, AtlasTi, and NVivo. NVivo was selected as it is able to manage data in a detailed (rich text) format, and is able to analyse small units of text (minimum unit is one character).

This selection of NVivo is supported by Gibbs (2002) who recommends the use of NVivo where the research is not a large-scale project, but where “fine grained analysis” is required and where an exploratory approach to analysis is required. NVivo encourages “constant playing with ideas and data” (Gibbs 2002, p.xxiii) and also enables the researcher to link coded text back to the context quickly. The key processes that it assists with are: organising processes; linking processes; coding processes; searching processes; showing processes; and modelling processes (Richards, 2002). These processes are contained within two key functions: the storing and manipulation of text within documents; and the creating and manipulation of codes (known as nodes in NVivo). The software supports the coding process at different levels of analysis outlined earlier, with

the ability to explore documents in fine detail, and perform topic coding, and also to assign attributes to documents and nodes as in descriptive coding. The search features and modelling features of the programme enable the software to go beyond a simple “code and retrieve” process to support creative thinking.

As highlighted earlier authors such as Morse and Richards (2002) emphasise the importance of memos and note making during data gathering and analysis to aid abstract thinking and the movement from description to abstraction. NVivo supports this well, with the ability to create unlimited memo documents, the ability to create notes and memos that link to individual sections of data, and the ability to create external links or data bites to for example references in Endnote, pictures or other documents. These features were used for this work, with memo documents being created, such as a “thoughts and ideas” memo and a “diary” memo established for use throughout the study.

The software allows for the creation of nodes prior to the importing of document data, a feature that was also utilised for this study. As outlined earlier, the creation of a priori frameworks needs to be treated with caution as it can lead to viewing data through a particular “lens”. Authors such as Miles and Huberman (1984) however recommend the creation of a provisional “start list”, a technique that was adopted for this work. The purpose of the literature review had been to identify key features of joint working, and the pilot study phase had the potential to act as an initial exploration of these features to form a “start list” of nodes prior to the main study, that could be updated and revised as the study

progressed. The process whereby this “start list” was created will now be described.

### **iii) Pilot study data analysis**

The pilot interview stage of the study was an important opportunity to refine the data analysis process, and the data gathered from these pilot interviews was fully transcribed and coded using the NVivo software, even though it was not to form part of the final study. The word-processed transcripts from the interviews were imported as individual documents into a new project in NVivo. A system of tree nodes was created as an initial framework, with nine “parent nodes” based on the main interview topic areas that had been suggested by the literature review. Elements, which the literature review suggested within each main topic area, were introduced into the framework as “Child nodes” subdividing the “parent nodes” to create an initial framework consisting of thirty-two nodes.

Once this framework had been established, the pilot interview transcripts were individually coded by careful reading on a line-by-line basis akin to a pattern matching approach to analysis as discussed previously. This method of coding, when nodes are used to connect material together from different documents is described as “non-serial” by Gibbs (2002). Kelle (1995) describes this as “signpost coding” as the codes are pointers or signposts for ideas or concepts.

As the line-by-line coding progressed, transcribed data was coded to established nodes in the framework where appropriate, but where data could not be linked to an established node a new free node was created. At the conclusion of first

coding of pilot interview one, nine new free nodes had been added. The same procedure was followed in coding pilot interview two and three, adding new nodes as required. In most instances the coding was “exclusive” (Gibbs 2002), as passages were coded at a single node.

Following coding of the three documents the nodes were revisited and all nodes that had no data coded to them were removed. This was followed by further analysis moving free nodes into already created nodes as “children”, creating more structure and hierarchy in node trees, as recommended by Gibbs (2002).

The research diary entry for this period of analysis records:

“Managed to relocate all of the free nodes within tree structures which I was pleased with, indicates that bits are starting to fit together and make sense”.

Further revisits were made to the data to check consistency of coding across the three interview documents. By hiding the coding stripes bar when analysing the document it was possible to code sections again to check consistency with prior coding.

Where there were difficulties in coding, these were noted to see if nodes could be collapsed together or expanded. One area for example, where coding was noted to be difficult was in relation to team process and professional role. The “team process” data was found to have more aspects to it than originally envisaged requiring the nodes in this category to expand from two to ten to precisely clarify the aspects contained within it. All but one of the original categories expanded their number of nodes contained within them during this process.

At the conclusion of the coding, forty-two nodes were established within a framework of seven “parent nodes”. See Table 2 for the complete node listing. This framework from the pilot interviews was taken forward to be the start framework for the main study.

The procedure for data analysis employed during the main study followed this process outlined for the pilot data, and will be further described in depth in a later section evaluating the methodology and data analysis strategy. The reason for placing it there rather than here is related to the parallel and iterative process of data gathering and analysis, where findings from each of the three study sites were used to inform analysis of findings at subsequent sites, thus the data analysis process for the main study will be more meaningful if described following presentation of the findings.

**Table 2. Node listing from the pilot study**

1	<b>(1) Organisation</b>
2	(1.1) /Organisation/structure
3	(1.2) /Organisation/manager
4	(1.3) /Organisation/Location
5	<b>(2) Conflict</b>
6	(2.1) /Conflict/how
7	(2.2) /Conflict/what
8	(2.3) /Conflict/solution (problem-solving)
9	<b>(3) Team process</b>
10	(3.1) /Team process/role in team
11	(3.2) /Team process/training
12	(3.3) /Team process/contact frequency
13	(3.3 i) /Team process/contact frequency/time spent together
14	(3.3 ii) /Team process/contact frequency/full time or part time
15	(3.4) /Team process/power
16	(3.5) /Team process/group support
17	(3.6) /Team process/time
18	(3.7) /Team process/decision making
19	(3.8) /Team process/Goal~purpose
20	(3.8 i) /Team process/Goal~purpose/what is
21	(3.9) /Team process/leadership
22	(3.10) /Team process/status
23	<b>(4) Professional</b>
24	(4.1) /Professional/how long qualified
25	(4.2) /Professional/team member versus profession
26	(4.3) /Professional/knowledge+ skills
27	(4.4) /Professional/role and identity
28	(4.4 i) /Professional/role and identity/know boundaries
29	(4.5) /Professional/autonomy
30	(4.6) /Professional/professional perspective
31	<b>(5) Individual</b>
32	(5.1) /Individual/previous exp
33	(5.2) /Individual/what ideal
34	(5.3) /Individual/personality
35	(5.4) /Individual/respect
36	<b>(6) Client</b>
37	(6.1) /Client/who decides care
38	(6.2) /Client/who decides discharge
39	(6.3) /Client/client outcome
40	<b>(7) Communication</b>
41	(7.1) /Communication/good communication
42	(7.2) /Communication/bad communication



## **4. FINDINGS**

Ethical considerations necessitate that the study sites and the participants within each site remain unidentifiable. This therefore requires that the three case studies are not reported individually, that individuals cannot be linked to specific sites, and that care be taken within this discussion of data to ensure that potentially identifiable information is excluded. This presentation of the data from the three case studies will therefore not be on a study-by-study basis as might typically be expected in multiple-case research, but will be considered in terms of presenting data relating to the elements of practice highlighted across the three separate investigations. Thus, although the data from the three separate studies are presented within this section, the particular source study that the data emanate from will be masked in an overall description. This form of data presentation whilst ensuring that individual studies are not identifiable will still however permit comparison and contrast to be made between the sites, a key element of qualitative data analysis discussed earlier in regard to methodological rigour (Bechofer and Patterson, 2000, Denzin and Lincoln, 1998).

### **Considerations**

In presenting the data it has been necessary to reach a compromise between volume and completeness. This work, in common with many qualitative studies has produced large volumes of data, and in order to assist brevity for the reader it has been necessary to provide only a sample of illustrative data in the main body of the text. In order to assist the reader in gaining an understanding of the occurrence of example data throughout the data set, the convention of giving

frequency indicators suggested by Mason (2002) has been adopted where appropriate. The appendix contains the data in coded categories which may be accessed to provide further examples where required, and a table is provided giving numerical data regarding instances of data for each code and for each document (see appendix 5). Selection of quotations for the body of the text has been made on the basis of firstly, providing a range of different types of source where possible (i.e. patient interview, staff interview, field notes, visual imagery), secondly, different participants within the staff and patient groups, and thirdly, paying attention to examples that are “negative instances” (Gibbs, 2002).

Within the presentation of data names have been changed to ensure anonymity, with use of “X” and “Y” to replace real names. Information which could potentially identify a location has also been substituted. For example terms regarding service delivery which are used specifically within one service and thus could be identifiable, have either been changed or where this has not been possible, the information has been taken out and replaced by “#”. The convention of using ‘...’ to illustrate pauses in speaking has been adopted to try to preserve the flow and meaning of the speakers.

A tradition of much qualitative research is for the use of “thick description”, where large sections of prose are presented to illustrate points made, and dialogue between participant and researcher is provided to give a context for extracted information. In presenting these findings, as highlighted above, considerations of length have required that data in the body of the text be significantly condensed. Qualitative studies typically provide transcripts of

interviews and field notes that may be referred to in an appendix section. In this study however, preservation of anonymity and confidentiality has been paramount, and the decision has been taken that in similar vein to not reporting the study sites individually, that transcripts of interviews and field notes should not be provided in the appendix section of this thesis as it will be in the public domain. Unlike extracts that may be anonymised by the methods described above, complete scripts could lead to identification of the study sites and potentially individuals within the sites. For this reason the appendix contains the data coded by node only, rather than full transcripts of the documents. The transcripts are available from the author separately if requested. Information regarding the documents that form the data is given in appendix 4.

As discussed in a previous section outlining the data analysis strategy, there are different levels or types of qualitative data analysis (Morse and Richards, 2002, Miles and Huberman, 1984) that move the data from purely description to meaning. In recognition of this, findings from the study will be presented firstly in this section as descriptive data, before presenting interpretation of the data in a subsequent section.

Data for the three investigations was collected from study sites within a single UK Strategic Health Authority. The studies encompassed a typical patient pathway for stroke care, from acute hospital ward, to specialist rehabilitation unit, to community care. One study was located on a ward within a large general hospital, and was designated as the stroke ward in that hospital. A second study was based in a specialist stroke unit within a smaller community hospital, a

location that was used as an intermediate point between acute hospital care and discharge into the community. The third study investigated a designated community stroke team that whilst based in a hospital-sited office, provided patient contact most frequently in the patient's home location, or on some occasions in a hospital out-patient department.

The typical care pathway for stroke patients in the region that this study was based within, was initial emergency admission to an acute ward, followed by a period of specialist rehabilitation when they were considered to be "medically stable", followed by discharge home or to a nursing home. All three case studies examined were designated as providing specialist provision for stroke care, but only the community service was exclusive to stroke, with other medical conditions forming part of the service remit in the other two locations. At each location there was a variety of staff from different professions, together with non-professionally qualified staff described by various terms, but performing an "assistant" role. The predominant staff groups involved in care for patients following stroke were nurses, medicine, physiotherapy, occupational therapy, clinical psychology, speech and language therapy, dietetics, and social work.

See Table 3 for a summary of the data gathered. See Table 4 and 5 for a breakdown of the study participants amongst staff and patient groups.

**Table 3. Summary of the data.**

	<b>Study one</b>	<b>Study two</b>	<b>Study three</b>
Observation hours (field notes).	45	33.5	42
Meetings attended (field notes).	3	4	3
Staff interviews (interview transcripts)	16	13	8
Patient interviews (interview transcripts).	3	5	3
Diagrams completed during staff interview	7	3	4

**Table 4. Breakdown of staff interviews by profession, experience and gender.**

<b>Profession</b>	<b>Years qualified</b>		<b>Gender</b>	
Nursing	Less than 1	1	Male	2
	One to two years	1	Female	8
	Three to five years	0		
	Six to ten years	3		
	More than 10 years	5		
Physiotherapy	Less than 1	0	Male	1
	One to two years	1	Female	5
	Three to five years	2		
	Six to ten years	2		
	More than 10 years	1		
Speech and Language Therapy	Less than 1	0	Male	0
	One to two years	0	Female	4
	Three to five years	2		
	Six to ten years	1		
	More than 10 years	1		
Occupational Therapy	Less than 1	0	Male	0
	One to two years	1	Female	7
	Three to five years	1		
	Six to ten years	1		
	More than 10 years	4		
Other professions (Medicine, Dietetics, Clinical Psychology)	Less than 1	1	Male	1
	One to two years	0	Female	3
	Three to five years	2		
	Six to ten years	0		
	More than 10 years	1		
Assistants (staff not professionally qualified)	Less than 1	1	Male	1
	One to two years	0	Female	5
	Three to five years	3		
	Six to ten years	2		
	More than 10 years	0		

**Table 5. Breakdown of patient interviews by severity, gender and age.**

Mild impairment	5
Moderate impairment	5
Severe impairment	1

Male	8
Female	3

Under 50	2
Over 50	9

Data from the studies was in the form of predominantly text, with some visual image data. The process of data analysis was described in relation to the pilot study data in the study design section, and will be reviewed in depth in the evaluation of methodology section, but it began with transcribing of the text from audio recordings or field note observations, followed by a process of coding (or indexing), enabling elements of text associated with the same element or idea to be linked together. The coding was initially based on the a priori framework, which evolved from the pilot study.

The previous section discussing the data analysis strategy emphasised the importance of not being constrained by a priori frameworks, and this was an important consideration during the data analysis process. Coding was carried out in parallel to the data gathering for each study, and in an iterative process of data gathering, examination, gathering of new data and re-examining previous data, the framework was revised and added to as new data was incorporated. As the work was based on a multiple case design, an important element of the data analysis process was at the conclusion of the three separate investigations, when

data from the completed study was reviewed and in a process akin to analytic induction described previously, data from the first study was compared and contrasted with data from the second and third studies in an iterative process. As a final level of analysis at the conclusion of all three studies data was retrieved by each coded domain using the NVivo node browser. Thus, data within the domain and within each element was reviewed, with re-coding and new codes being added as the analysis proceeded.

At the conclusion of the data gathering and examination process, some nodes that had been present in the “start framework” been combined or even removed, some subsidiary codes (child nodes) had been added to or re-grouped to form a suggested framework of 26 elements of practice. Parent nodes had also been added to or combined in the data analysis process to form the final framework, suggesting that the 26 elements of practice were grouped within six main categories or domains within the data.

In the following section this descriptive data will be summarised and presented within the six parent nodes or domains that were developed by this process. The main domains for joint working practice suggested by the data are:

- **The organisation**
- **Team process**
- **Communication**
- **Professionalism**
- **The individual**
- **The service user.**

The subsidiary (child) nodes will also be discussed within each parent node in the following sections. The first area to be described is data relating to the organisation.

#### **4.1 THE ORGANISATION**

The initial stage of the data gathering for each site was an observational phase, where the investigator spent periods of time on site, gaining an understanding of the working environment, and observing interactions between the staff. The organisation was also an area that was explored during the individual interviews (see appendix 1 for interview schedule). Within the individual interviews, staff were asked specifically about how they were managed and about how their work within the unit was organised. There were also informal conversations with staff during observation periods that were recorded via the field notes.

Within the parent node or domain of ‘the organisation’, five elements (child nodes) emerged, relating to: firstly, organisational conditions; secondly, location; thirdly, time; fourthly, management; and finally, context, which will now be described.

##### **i) Organisational conditions**

A count of the number of passages coded to each node indicates that the organisational background featured as the most significant element within the data, with the “organisational conditions” node featuring as the node with most passages coded to it within the data (235), and being the node present across the



most number of documents (58). Complete data for this node is listed in Appendix 8:1.

Working hours across professions varied at the hospital based sites, with nursing staff working within a shift pattern system, and other staff working a “traditional working day” pattern. This difference in working pattern meant that at these sites nurses were the only staff regularly providing care to stroke patients on evenings/nights/weekends, with joint working restricted to “normal working day” hours of around 8.30 am to 5-5.30 pm. The only exception to this was when patients required urgent medical attention. The study participants reported that this difference in working hours had a significant impact on joint working:

“Because of the hours we work that divides us.. and the way we work.. they’re down there.. um I mean obviously there have got to be notes and that but because of the shifts we work.. and the weekends obviously the nursing team it’s a different .... group of people..” (Document 'individual interview 8' Section 41.1, Paragraph 161).

“I think somebody said that therapy staff only work traditional hours, like physios start at end of a morning....is really the start and then they finish at half four five, whenever. So maybe at teatime we might have a patient who because when it gets to that time of day and they are a bit more tired and their swallowing difficulty might be more prominent at that time of day, but you’ve got no speech and language therapist to assess.” (Document 'individual interview 3' Section 21.1, Paragraph 84).

“And they’re (nurses) always here when you come in...at 7 o’clock in the morning and we always speak to them then...whereas physios...saunter on about nine...” (Document 'individual interview 19' Section 0, Paragraph 232).

“Physios only work days....and OT...and they don’t work weekends..... which I mean I used to find that very disappointing because I used to enjoy physio, and when it got to Friday you knew you weren’t going to get any more while Monday.... so you’d to rely on nurses if you could do certain things helping you.” (Document 'patient interview 17' Section 0, Paragraph 198).

The other variation linked to working hours was in regard to full time versus part time working, with some professions having a part-time presence in the site, with

others having at least one member of staff there on a full time basis, an element identified as significant by some of the participants:

“If there isn’t as much opportunity to work together, then you can’t share as much and you do have to do...it naturally becomes more uni-professional because you haven’t got the other people to work with... (Document 'individual interview 15' Section 39.1, Paragraph 156).

“I will say that it’s a bit tricky at the moment.... we have an office # so there’s supposed to be some cover for the other wards.... um ...at the moment there are some staff shortages so I’m actually having to cover everywhere, so I’m noticing that that it makes a big difference from my point of view, because communication wise, it’s everything takes a lot longer cos I’m not able to attend all the handover type meetings.” (Document 'individual interview 12' Section 7.1, Paragraph 28).

The length of time that individuals were present in the unit also varied in terms of working patterns. Some professions such as medicine and physiotherapy operated a rotational system for their junior staff where staff worked on the unit for a limited time and then moved on to another location. Other staff groups such as nursing did not operate a formal rotational system but did move members around as staffing needs required, and operated a shift system, which varied staff presence in the team on a day-to-day basis. Other staff groups such as speech and language therapy and dietetics tended to have less planned staff variation (although, as with all the professions sickness, maternity leave, and staff career movement lead to staff changes) for example:

“One of them was a bank nurse so is only on the ward for a short time”. (Document 'field notes m' Section 0, Paragraph 12, 68)

“There should be another two and a half days of cover and then another whole time post and some provision for ward cover although she’s off sick at the moment”. (Document 'individual interview 12' Section 14.1, Paragraph 56).

Participants highlighted differences in working patterns:

“I’ve been here #...the other OT is a locum OT, um... the physios.. there’s one been here nine months on rotation...the senior has been here #

probably.... um...cos the physio's been rotating in.." (Document 'individual interview 15' Section 42.1, Paragraph 168).

"They're always moving them you know..." (Document 'patient interview h' Section 0, Paragraph 226).

"Sometimes staff's jiggled about so tomorrow there's not enough on # so I'll go on to #, but not knowing about the particular patients I'm not much good...." (Document 'individual interview 21' Section 0, Paragraph 52).

"There's some people...there's some rotational....staff who I wouldn't go for information on ...cos maybe I don't know them well enough.....or I don't know how they work or I don't think they appear to be as specialist....but regular therapists who are there all the time they are specialist...they are the ones that I'd....we've only got odd ones who are regulars...all the rest move on...." (Document 'individual interview 36' Section 0, Paragraph 116).

Staff at all the study sites reported that they were undergoing organisational change in response to government-led or employer-led policies, with sites reporting changes to number of beds, mixture of patient types, staffing, and organisational policies and procedures such as discharge criteria and length of stay requirements. Organisational change at the time that this study was being carried out was reported particularly in regard to hospital lengths of stay, and the impact that this would have on the way that the staff operated:

"In a way we are, the NHS is changing really about that because there is drivers to say you know average lengths of stays and things like that...from me as consultant...slightly different for me cos I have to be conscious about average lengths of stays and what are the costs and tariffs and payment by results and things like that...so there is drivers there that you have always got to have in the back of your mind." (Document 'individual interview 16' Section 21.1, Paragraph 84).

"Our managers higher up have an impact on that ...but in each area will have their specific issues as to what... service they are trying to provide...but depends on government initiatives as well isn't it...and targets that they are meeting..and how the managers are responding to that...isn't it I suppose." (Document 'individual interview 22' Section 0, Paragraph 64).

"I think because of the changing focus of everything...um..so for particularly they want us to focus on....the immediate period of time after discharge and not necessarily focus on three years down the line....when people feel that

they are progressing...so I think that sometimes the goal posts change....um....but part of that is from what the government want....so it's kind of like having to change your practice...." (Document 'individual interview 34' Section 0, Paragraph 140).

Staff described the impact of organisational change on the formation and functioning of joint working:

"When it changed to more patients it took a bit of a battering and we are just in the process of coming back up from that and I think yes it is good, it was excellent, it's back to being good again.. (Document 'individual interview 10' Section 29.1, Paragraph 116).

"I think when it happened there was...I mean this isn't just in terms of the stroke unit...the whole sort of therapy services in the trust...cos it was a lot of change...there was a lot of resentment." (Document 'individual interview 22' Section 0, Paragraph 48).

Staff were concerned at the impact of changes, but also at resources available, and levels of staffing on the sites, and the impact that staffing levels had on their working life:

"But you should work as a team and sometimes on afters if there's not enough staff.. it doesn't work cos if you've only three or four staff you can't divide like that." (Document 'individual interview 8', Section 32.1, Paragraph 128).

"It's fine if you've got the resources elsewhere ...in the community to continue um...all the beds...but # ..... all the waits in social care...ultimately..social services...what can we do about that....out of our control...." (Document 'individual interview 23' Section 0, Paragraph 132).

"I think that I would.....um...it would be nice...and we've said this for so many years, and it's never quite happened...for us all to be seeing the same patients at the same time....but with lots of waiting lists...and waiting times...we've very rarely get to the point where we all go in together ..." (Document 'individual interview 30', Section 0, Paragraph 164).

All staff on all sites did not voice concerns about limited staffing, there were also some instances of staff making positive comparisons between staffing in stroke services and other locations:

“Having said that, when that was decided the patient numbers were fewer, I think there were # plus we didn’t always have full occupancy at that time, so to have a dietician spend all that time was quite a luxury really, it was usually the case that were on and off, so I think from the point of view of interprofessional working this is perhaps the one place that I’ve worked where that does become more possible, here.” (Document 'individual interview 12' Section 6.1, Paragraph 24).

“I think it’s that ratio of staff to patients is better here” (Document 'individual interview 15' Section 39.1, Paragraph 156).

## **ii) Location**

The working environment and location of staff varied both within and between the sites studied. There was variation as to whether staff were based on the ward, based in separate profession-specific rooms, based in another area of the hospital, based in a shared office, or based outside of the hospital. The location of staff both to each other and to the patients seemed to be a significant factor, which impacted on joint working practice. “Location” was coded to 61 passages across 26 different documents, (see Appendix 8:2. for complete listing) for example:

“I think the fact that we are all together, based together helps, because I think as soon as you start segregating people off into rooms it’s naturally harder, you can’t help but talk to each other, and I think that’s a good thing.” (Document 'individual interview 10' Section 46.1, Paragraph 187).

“Cos we’re based on the ward...as well I do have a big sense that I do feel more a part of an MDT as I said before as an OT group.” (Document 'individual interview 22', Section 0, Paragraph 118).

“Being in the same room I think.....more than being in the same building because even within the same building...there are barriers.” (Document 'Individual interview 33', Section 0, Paragraph 164”).

Some staff reported being constrained by a less than ideal working environment:

“I will be honest that because the # and # don’t share an office...in an ideal world we should share an office...but we can’t fit in one room....” (Document 'individual interview 24', Section 0, Paragraph 30).

There was only one instance in the data of staff reporting negative factors associated with a close location:

“I think here cos we’re based on the ward you can’t if ... if you need to get your paperwork done you do get interrupted and things to, to help out with a transfer or what have you which in a way is good, cos you can input straight away, but if you weren’t there then they’d be able to sort it.” (Document individual interview 2b Section 72, Paragraph 144).

### **iii) Time**

Staff often linked constraints on joint working to issues of time, and expressed concern at the need to balance patient contact time against joint working time. Staff meetings (usually referred to as MDT or multidisciplinary team meetings) for example were identified as an important decision-making forum, but staff expressed concern at the time taken up by them during a working week. “Time” was coded to 54 passages across 21 documents, (see Appendix 8:3. for complete listing) for example:

“It is extremely time consuming, not that that matters.” (Document 'individual interview 3' Section 30, Paragraph 60).

“In the # it says therapy goals...cos to be honest I just see my bit and I don’t look at anybody else’s bit..which maybe I should....but I just don’t have the time.” (Document 'individual interview 25', Section 0, Paragraph 84).

“We don’t generally go in for goal setting...cos we haven’t got time..” (Document 'individual interview 19' Section 0, Paragraph 116).

### **iv) Management**

There was variation between the study sites in terms of organisational conditions relating to management structures. Within each site individual staff varied in terms of their line management - whether they were managed via a same-profession management route, a team management route, and in some cases staff were managed simultaneously via two or even three different routes. Differences in management also led to different employment conditions i.e. employed by the

service provider itself, employed by a different part of the organisation, or even by a different organisation.

Staff also differed in terms of supervision systems with assistant (non qualified) staff being supervised by a senior staff from any profession, but professionally qualified staff being supervised exclusively by a more senior member of their own profession. This was reported as problematic by staff and in some instances required supervision systems outside of the site where there were not more senior same-profession individuals available. “Management” was coded to 80 passages across 25 documents, (see Appendix 8:4. for complete listing) for example:

“Operationally I would say I am managed by X but professionally stroke clinically by Y..... it does make me feel that I am pulled in two ways.” (Document 'individual interview 10', Section 2.1, Paragraph 8).

“Because they are managed differently to us they're not in the same meetings...you know.” (Document 'individual interview 24' Section 0, Paragraph 30).

“There can be difficulties....particularly when there are problems within this team ultimately I am...I have to go back to x if there are any problems....um....because she is my line manager so if the team leader wanted me to do something then really it is about...if it is anything unusual then it really needs to go through x before it comes to me so sometimes there could be a conflict of interest but usually it's resolved...” (Document 'individual interview 33', Section 0, Paragraph 40).

“Cos it's very apparent that certainly the AHPs that are employed by a different organisation see their loyalties with their employing organisation...” (Document 'individual interview 34', Section 0, Paragraph 72).

#### **v) The context**

One of the research questions was regarding whether the service delivery setting impacted on joint working practice, and the three case studies offered the opportunity to compare three different contexts for stroke care provision.

“Context” was coded to 41 paragraphs across 20 documents, (see Appendix 8:5. for complete listing). Staff working at the hospital-based sites viewed joint working in the community as more problematic, for example:

“You cannot work as interdisciplinary there as you can here simply because of the dynamics of the service, demographically you can’t all go in to somebody’s home in the same way as you work here..” (Document 'individual interview 10' Section 34.1, Paragraph 136).

“I’ve worked in the community which was completely different...way of working....cos you work basically on your own when you’re in community.” (Document 'individual interview 20' Section 0, Paragraph 133).

However this view of community services as offering less potential for joint working was not universally shared:

“When I worked in intermediate care...there was more...much more blurring... there was...the first one who went out...did this this and this...it didn’t matter who it was.....um...” (Document 'individual interview 24' Section 0, Paragraph 58).

Staff perceptions of working practice between hospital and community settings was that the contexts presented different challenges:

“I think that that is the pressure of clearing beds probably from an acute sense...the medical situations have to be sorted.....the social situation is sorted so the person can cope.....at ..the basic level that they need to cope at at home....and then they are discharged...I don’t think that they have the luxury of looking at any other of their needs so when you get out in to the community you tend to find....a lot more....particularly adjustment emotional issues are picked up far more in the community than they are in hospital...” (Document 'individual interview 34' Section 0, Paragraph 124).

“I think community does require more skills...um...broader skills you know...I’m not saying that a community physiotherapist is any better or worse than an in patient physiotherapist...just different...the pressures of working in ...treating in patients is that you’ve got ...you probably see twenty times as many patients as you do in community....but in community you’ve got the driving ...you’ve got the time management...you’ve got the ....all the emotional baggage with patients who have got no one else to speak to....um..it all comes back through you..so you have more skills...wider generally....um I would say...” (Document 'individual interview 33' Section 0, Paragraph 212).



## 4.2 TEAM PROCESS

At all three sites staff frequently referred to “the team” and identified themselves and other individuals working with patients at the same location as team members. However the numbers of individual that were present at the sites and thus who had the potential to be considered to form “the team” varied in terms of number between in the region of 20 and 50 (specific numbers not given as potentially identifying). Also, ascertaining which staff could or could not be considered to be part of “the team” was challenging for the research, as involvement of staff in day to day care was variable, with a wide range of specialist services called upon at times in response to individual patient need, particularly in the acute hospital setting. The staff on site who regularly worked with each other and thus in terms of definitions from the literature outlined earlier, could be considered to form “the team” encompassed the following professional groups, See Table 6.

**Table 6. Team members.**

Nurse
Doctor
Physiotherapist
Occupational Therapist
Speech and Language Therapist
Social Worker
Dietician
Clinical Psychologist
Stroke co-ordinator
Counsellor
Assistant (non professionally qualified staff referred to by variety of titles)

It is important to note that the study found that there was a large group of other professions who also could have involvement in care of stroke patients, who were present at the study sites on infrequent occasions, or who were mentioned by staff during observations or interviews. These professions were used for example for advice, specialist opinions, further testing/investigations, and drug supply, with patients usually needing to leave the study site to access these services in other parts of hospitals or other hospitals or other specialist clinics. Other individuals who were associated with “the team” included: pharmacy, radiography, orthoptics, audiology, district nursing, and consultants in neurology, dementia, cardiology, and prosthetic limb services, together with voluntary services and agencies. These other individuals were not in regular contact with the participants, and were not based within the locations being investigated and were therefore not included in the study. The participant’s perceptions of these individuals was also that they were not core to service delivery and were therefore not perceived to be part of joint working at that location, even though they could have an important influence on patient care.

As the literature review had highlighted the importance of elements of team process in making distinctions between types of working practice, this aspect of the study was important in terms of gaining an understanding of who was perceived by staff to constitute “the team”, and how much time individual members of staff spent working with other professionals.

The individual interviews with staff and patients helped the study to establish who was perceived as being “the team”. The visual image data gathered during

the individual interviews also helped clarify who was involved in patient care at each site, and team members versus other professionals providing care. This important function of the different data sources as comparators in the data analysis, especially the role of the visual image data will be returned to below. The observational periods spent on site provided an important means of identifying which professions could be defined as being in regular contact and in particular, attendance at staff meetings was a helpful way of establishing which professions could be considered to be team members. The literature review had suggested that regular contact was an important aspect of team process, and data describing contact frequency was significant in the findings.

#### **i) Contact frequency**

It is important to note that frequency of joint working was linked by some staff to the working location, described earlier in relation to the organisational domain.

“Contact frequency was coded to 56 passages across 26 documents, (see Appendix 8:6. for complete listing) for example:

“Therapists were just people who went on to the ward came off the ward come on to the ward and came off the ward, whereas the nursing staff were based on the ward and there has been a history of kind of not amalgamation between therapy and nursing staff. I think cos we’re based on the ward that helps... because we’re seen as part of the ward rather than people who come drifting in off the ward” (Document ‘individual interview 11’ Section 7.1, Paragraph 28).

“Going back to you saying who would I closely work with..and yes it is the physios but again on here I have more involvement with all members of the MDT compared to if I was working somewhere else...and cos we’re based on the ward...as well I do have a big sense that I do feel more a part of an MDT” (Document ‘individual interview 22’Section 0, Paragraph 118).

The study originally planned to use a contact diary to gather data describing how much time staff spent working with other team members. This method of data

collection proved to be too difficult or too time consuming for staff to volunteer to complete (discussed further in evaluation of methodology section). Instead, staff were asked to estimate how much they worked on their own and how much they worked with other professionals in a typical working week, during the individual staff interviews, with a wide range of variability reported, between individuals, between different professions, and between individuals within those professions depending on their level of seniority:

“50-50 or 60-40 70-30 depending on what it is.” (Document 'individual interview 2' Section 76, Paragraph 152).

“I would put the nursing a bit less actually, I would put it about 60-40.” (Document 'individual interview 3' Section 90, Paragraph 181).

“For me it would be 90% nursing and 10% other people.” (Document 'individual interview 7' Section 38.1, Paragraph 151).

“Probably half and half...that’s me personally I think it depends ...what your role is...I think I do more teamworking and liaising cos I’ve got the specialist post here..” (Document 'individual interview 29' Section 0, Paragraph 188).

Staff discussed when and why they would work with others from their own profession. Physiotherapists tended to frequently work with other physiotherapists, and staff linked this to the nature of their work, which often required more than one person:

“I tend to work with the other physios quite a lot cos we tend to... we see patients together anyway cos they need two people.” (Document 'individual interview 25' Section 0, Paragraph 16).

Joint working amongst the therapy professions (Physiotherapy, Occupational Therapy and Speech and Language Therapy) was reported to take place regularly in the locations studied:

“We try and do a lot of joint working...like joint washing and dressing..so we’ll work on their alignment while the OT’s looking specifically at the washing...um...yeah we do do a bit of joint assessments...certainly...joint

further assessments down the line..certainly...um...talking to patients about goal setting..we try and do that...together.” (Document 'individual interview 24' Section 0, Paragraph 54).

“I could walk towards a patient with a spoon and the physio will go...oh let's do some positioning...work cos the speech therapist is about to see them...so we'll position them now...we'll do some positioning work so that they're in position for the speech therapist.” (Document 'individual interview 29', Section 0, Paragraph 112).

Links between the therapy professions, and the nursing and medical professions at the hospital sites however seemed less strong:

“Certainly some nurses you get on better with than others...or you do have a relationship with, or they know your name and others...I couldn't tell you who they are....and the doctors ...consultants..some of them I don't even know what they look like.” (Document 'individual interview 27' Section 0, Paragraph 76).

“On a typical day it would be mostly qualified...nursing staff...we hardly ever get to chat with physio or OT...” (Document 'individual interview 21' Section 0, Paragraph 150).

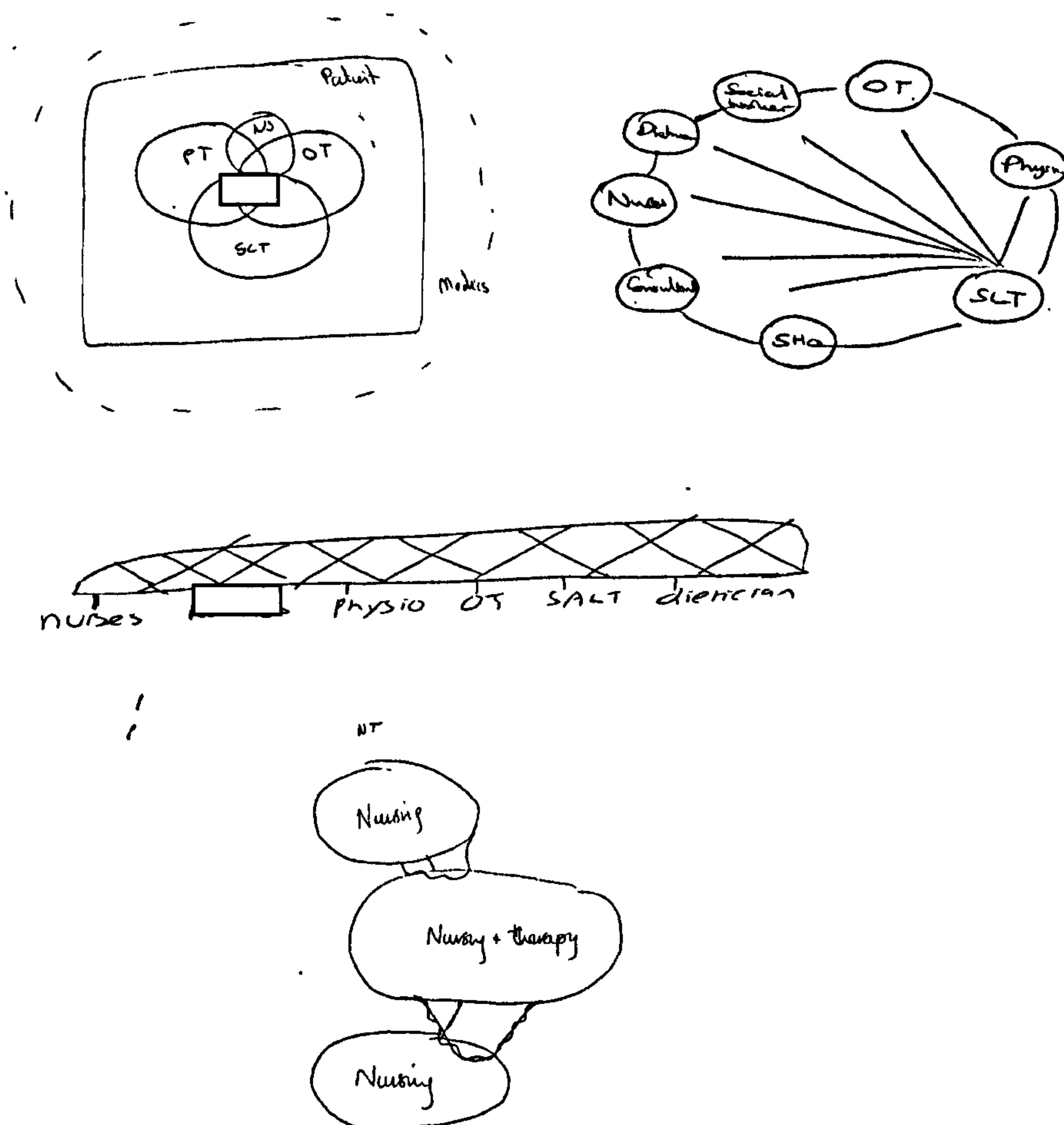
“It's usually (other) nurses who you've got most to do with...” (Document 'individual Interview 20' Section 0, Paragraph 12).

## **ii) Teams within a team**

Whilst staff mentioned “the team” frequently in discussions, referring to the complete set of staff at the site, this was contradicted by the visual image data. When asked to draw a picture or diagram to represent “the team”, the most frequent image of “the team” drawn by staff was of circles or segments of staff grouped together by individual profession, which were then linked to staff from other professions (see Figure 2 and Appendix 6). This representation of the staff on site as professional groupings linked to other professional groupings became increasingly apparent as the data gathering and analysis progressed, and an additional node was added to the start framework called “teams within a team”, which gathered together data relating to sub groups within the larger staff group

at each site. The data contains 51 passages across 28 documents coded to this node “team within a team” (see Appendix 8:7. for complete listing).

**Figure 2. Visual image data showing the team comprised of linked individual professions**



The data presented in the earlier section relating to organisational conditions highlighted the difference in working patterns between different staff, especially between the nurses and the therapy staff. These differences in employment potentially created subgroups within the larger team, which could be an

individual profession group, or an allied health profession group, and this was reported to be the case by staff during interviews:

“There’d be lots of little teams so there would be therapy medics....nursing...pharmacy..dietetics...uh....etc and we all interlink with each other...but I am also aware we...all have little links out of the team...so to the main dept.” (Document 'individual interview 24' Section 0, Paragraph 122).

“Perhaps two bubbles maybe so we’ve got maybe the therapists on the one hand I’d include myself in that... and then perhaps the nurses on the other side...with kind of communication between them...sometimes gets broken.” (Document 'individual interview 12' Section 46.1, Paragraph 184).

“The therapists are there as one team, the nursing and #s are there as another team.” (Document 'individual interview 6' Section 15.1, Paragraph 60).

“So....I suppose we are .....lots of little teams..so we aren’t truly integrated....one could argue..we work together...but we don’t have one manager over the stroke unit that manages us all..” (Document 'individual interview 24' Section 0, Paragraph 46).

In the data there are some examples of therapists and nurses developing a closer relationship. This seemed to be in order to present a “united front” against medical staff, and related to issues of status and power, that will be discussed further in relation to professionalism, for example:

“It’s usually the nurses and therapy staff that get together and say sign that sheet...” (Document 'individual interview 7' Section 47.1, Paragraph 187).

“We really have to fight our corner from a therapy side to keep those patients in because they wouldn’t be safe to go home, but I think...because of...because I suppose we are quite strong as an interprofessional team or a therapy and nursing team that because we know what those patients problems are, in depth and the medics don’t.” (Document 'individual interview 11' Section 26.1, Paragraph 104).

### **iii) Support**

The data was examined for evidence of other support networks, like that employed by nurses and therapists, operating within the sites. “Group support”

was coded to 16 passages across 15 documents (see Appendix 8:8. for complete listing). At two of the locations the therapy professions met separately prior to staff meetings to prepare amongst themselves:

“Therapists as last week had previously met before this meeting to decide goals.” (Document 'field notes 4' Section 0, Paragraph 2).

“We can guide the medics into what might be a more appropriate ..” (Document 'individual interview 11' Section 26.1, Paragraph 104).

At these two sites, the therapy professions seemed to provide the support for each other, but at all sites staff referred to “the stroke team” as a source of support:

“We all need to support each other...and have opportunities to discuss what’s going on..” (Document 'individual interview 27' Section 0, Paragraph 84).

“I used to think is the MDT ideal....interdisciplinary working...is that idea..did it come about because it is good for the patient or...did it come about because it feels good for the....clinicians cos it’s certainly a much nicer way to work for the clinicians...much more supportive..you know....” (Document 'individual interview 29' Section 0, Paragraph 116).

#### **iv) Benefits to staff**

Along with support, the opportunity to discuss patients at staff meetings and on other occasions was a key benefit of joint working identified by staff. In their reports of the benefits of being able to have discussions about patients, the factor of location, the proximity of staff (discussed earlier) is alluded to in enabling these discussions to take place. See Appendix 8:9 for complete node listing, for example:

“On traditional wards you might be waiting a few days before physio can come and see them, whereas on this unit the physio is here and as soon as that patient has come, it can be like oh, we’ve got this patient, how shall we move them, and then there’ll come and see em, and you’ve always got somebody based on this unit to ask, rather than having to fill in a load of contact forms, and things like that.” (Document 'individual interview 4' Section 5.1, Paragraph 20).



“If I’ve got any queries or problems or anything I just go to bottom of ward and say excuse me you know.” (Document 'individual interview 9' Section 8.1, Paragraph 32).

“Benefits to staff” was the 8<sup>th</sup> most frequently occurring node, being coded to 105 passages across 33 documents. Associated with the opportunity to discuss patients with other professionals, was the reported benefit of having additional information and receiving knowledge from others at the site, which enabled staff to better provide their own profession-specific care. This reported benefit more specifically could be associated with the staff presenting a consistent “front”, or helping problem-solving and clinical decision-making, or alternatively gaining a more complete “whole person” view:

“I think that assessment and management of the patient..I think that social management of the patient is important as well cos we...have cases where....the relatives are in a lot of distress obviously with people having had strokes and we have to know how to manage them and it’s no good if were all saying different things to them or some of us are giving lots and lots of reassurance that everything is going to be alright and someone is saying they’ll never be able to walk again...we need to know and decide amongst ourselves what the story ....is....really to be consistent...” (Document 'individual interview 29' Section 0, Paragraph 112).

“For me it is better, cos you get information from everybody, you are not relying on your own decisions, you can get information from other people.....” (Document 'individual interview 7' Section 21.1, Paragraph 85).

“I could see the major benefits in doing that and I’d come away from one hour of a session maybe with an OT maybe knowing more than in four or five of my sessions on my own trying to think.. well is it due to this or due to this..” (Document 'individual interview 10' Section 12.1, Paragraph 48).

#### **v) Decision-making**

Some staff described the benefits of joint working to be associated with shared decision-making. They highlighted the individual professional responsibility of traditional working patterns, and reduction of this feeling of

individual responsibility in joint working because of “team decision-making”, which they saw as of benefit to both themselves and patient care. Together with the “decision making” code, there were also two separate codes added for “who decides discharge”, and “who decides care” which contain data relating more specifically to these decisions, and will be discussed later in the section presenting data specifically regarding the patient role in care. “Decision-making” referring to data concerning perceptions of decision making amongst the staff, and was coded to 34 passages across 18 documents (see Appendix 8:10), with some participants referring to their perception of “team decision-making” as being a reduction in individual decision making or responsibility (see Appendix 8:40), for example:

“A shared responsibility and um you don’t feel isolated when you are making a decision.” (Document ‘individual interview 10’ Section 15.1, Paragraph 60).

“I like that cos you can work closely, share the responsibility, get somebody else’s perspective..” (Document ‘individual interview 22’ Section 0, Paragraph 118).

“You don’t feel isolated when you are making a decision.. for example in MDT, if you are thinking.. oh I want them to stay here a bit longer, and I know that I can go and discuss it with the others and put my point of view and they’d think well I can see that and you get the support of the team. You don’t ever feel like you as an individual are making a decision anymore, which has to be better for the patient hasn’t it..” (Document ‘individual interview 10’ Section 15.1, Paragraph 60).

At two of the three sites individual participants identified the weekly staff meeting (referred to at all sites as “the multi disciplinary team meeting” or “MDT”) as the main forum for decision-making:

“Arrived when discussion going on re how to handle changes to the ward round. Ward round has been changed to #. Agreed that someone from therapies would go to ward round, take it in turns and whoever goes to ward round would then go to MDT. Would try to ensure that any

decisions taken re discharge go to MDT for final discussion.” (Document 'field notes 3' Section 0, Paragraph 1).

“It’s all done over regular meetings, like we’re going to try and aim for this now... and we’ll soon move onto that.” (Document 'individual interview 8' Section 12.1, Paragraph 48).

“Often discharges can move faster when we have these MDTs cos we’ve got the OT and physio and social worker there...and OT can say we need another week...physio can say we’ll be discharging and then it’s down to medical staff to finish off the final testing...” (Document 'individual interview 19' Section 0, Paragraph 160).

The MDT was declared as the main forum for this decision-making but often decisions seemed to be being made outside the meeting, and the meeting served as a formal “ratification” or “rubber stamping exercise” which required the presence of a member of staff of the medical profession:

“Afterwards I wondered what the objective was that the meeting had fulfilled, apart from the medic being informed. The therapists and nurses were aware of the goals for each patient, it did help to clarify management in terms of meetings for review and discharge.” (Document 'field notes 4' Section 0, Paragraph 3).

“A lot of decisions are made at MDT, but then if I think.... oh we’re not doing a lot for this patient, I’ll go down to the physios and say... I’ve been looking at Mrs smith and I think she’s improved a lot, what do you think, do you think we’re getting any nearer discharge, and we do it that way as well.” (Document 'individual interview 7' Section 44.1, Paragraph 175).

“Once a week when it’s MDT...that we can guide the medics into what might be a more appropriate ..” (Document 'individual interview 11' Section 26.1, Paragraph 104).

This function of the doctor in relation to decision-making will be discussed further in a later section on professional roles. At the third study site, the meeting had a different form from the other two with a more information sharing and training element, rather than decisions regarding patients under the staff’s care. This different role of the meeting seemed to relate to the open-ended nature of treatment at one site, rather than the need to reach decisions regarding the conclusion of intervention and transferring the patient on at the other sites:

“Emphasis seemed to be on patient discharge as soon as possible - need for throughput, asked for decisions on them by the next meeting.”  
(Document 'Field notes 12' Section 0, Paragraph 7)

“The team currently have no discharge policy unless a patient is only being seen by one member of the team..some of the patients are kept on for years, and the team has been criticised for not having a strict policy.”  
(Document 'Field notes w' Section 0, Paragraph 8).

In contrast to patient management decisions, the decision-making regarding ongoing care of patients, such as type of intervention, specific treatment goals and assessment was the domain of individual professions, although as highlighted earlier there was some discussion of goals amongst the therapy professions who could be considered to form a team within the team. In the data it is interesting to note that the text coded to decision-making exclusively describes care management decisions such as discharge and transfer, with no examples of discussion regarding ongoing treatment.

An element of team process that can be linked in particular to decision-making regarding care management is leadership. Leadership was also identified as an important potential factor in team outcomes and effectiveness in the literature review.

#### **vi) Leadership**

The sites studied differed in their leadership models, with one having an identified leader who was based at the site, one had no identified leadership but which had leaders operating amongst subgroups based on professional seniority, and another site had a leader with managerial function but no stroke patient caseload. “Leadership” was coded to 35 passages across 18 documents, with the majority of documents coming from a single study site (see Appendix 8:12.). At

two of the sites staff perception was that leadership functions were housed within the senior staff, even though one of these sites did have an identified person who was referred to by staff as the “team leader”. Leadership was thus complex, for example:

“There might be certain people you would identify as leads cos of the depth of knowledge of experience and expertise, in that but that doesn’t mean to say that you can’t still have a team approach.” (Document 'individual interview 16' Section 11.1, Paragraph 44).

“Because we are multidisciplinary you’ve got this situation where there’s myself and other members of multidisciplinary team, leaders on the same level.” (Document 'individual interview 3' Section 4, Paragraph 8).

“ Think it’s really easy for a physio or an OT to lead because they are here all the time.” (Document 'individual interview 10' Section 9.1, Paragraph 36).

“On each side we’ve got the team leaders....which is the staff nurse.” (Document 'Individual interview 18' Section 0, Paragraph 36).

Even though the situation seemed complex, there is only one example in the data of an individual raising slight concern regarding this lack of clarity of leadership role:

“It’s difficult really cos they’ve all got their own separate jobs, but # would be our leader and # manager to a certain extent would be leader of physios and.. OTs because #’s the main manager, so should be leader, although they’ve got their ..... but as a ward unit really I would have thought # would be the main leader, and then everybody else....” (Document 'individual interview 5' Section 30.1, Paragraph 121).

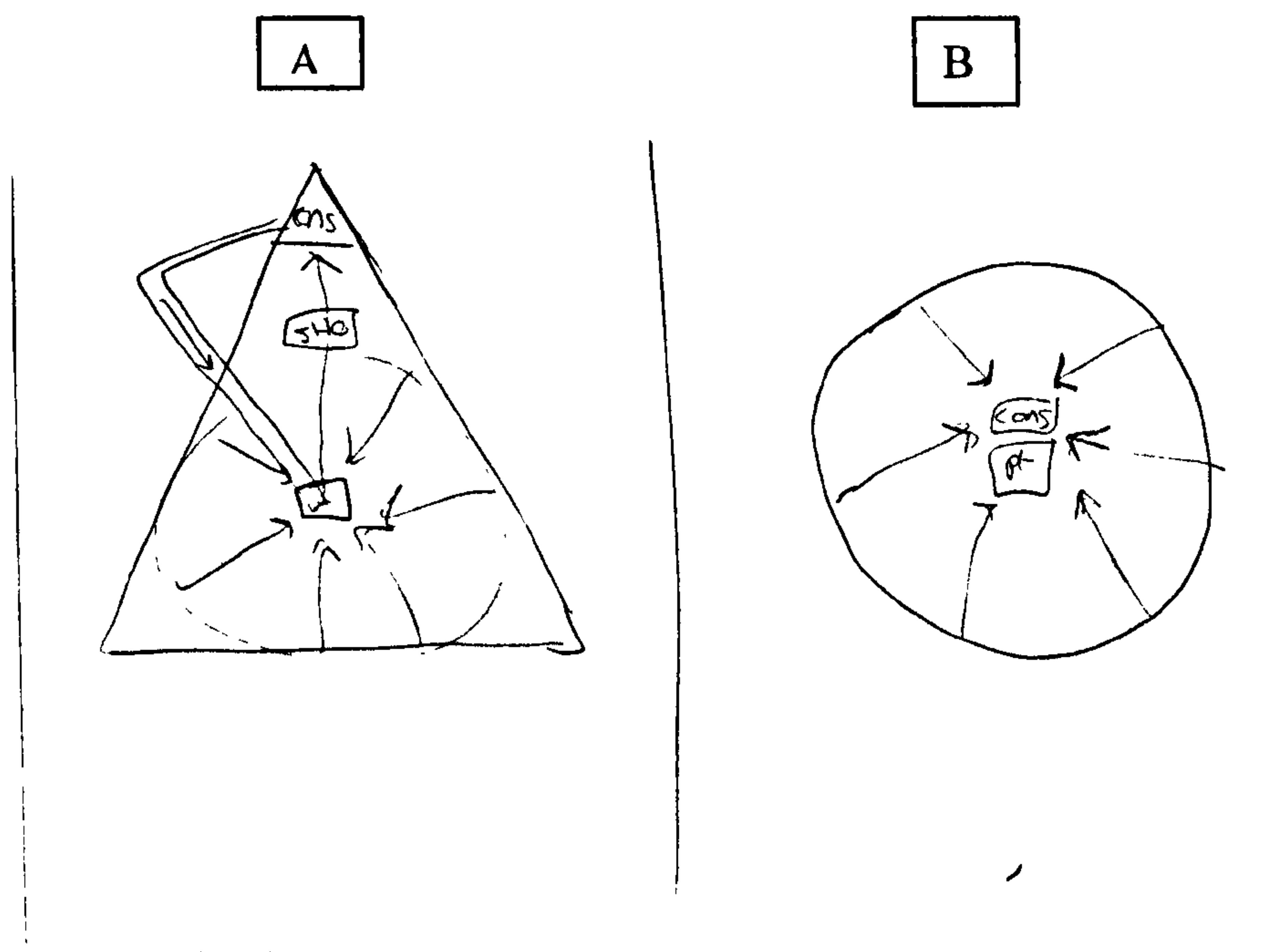
At another study site, there was an identified team leader and staff talked about the benefits of having a leader:

“My personal opinion is that it doesn’t work without having a leader.....there are another couple of teams in the # and they haven’t got a leader and they struggle and they really struggle.” (Document 'individual interview 34' Section 0, Paragraph 220).

In 11 of the 14 visual image data drawings representing the team (see figure 4 ‘B’ for example, and Appendix 6 for other examples) the team is drawn as a flat,

circular structure, without hierarchy. In the one example of a hierarchical team drawn (see Figure 3, 'A') it was emphasised that this was only how the influence of one particular individual (a consultant) led to the team operating for some of the time in this way, and normally it operated as 'B'.

**Figure 3. Hierarchical versus flat team structure**



In discussion while they were drawing the image staff tended to emphasise that their view of the team was that members were all equal. At two of the sites there appeared to be leadership within subgroups, but leadership itself seemed to be less clear. At the other site there was a clearly identified team leadership role, but for all sites leadership was not seen as being a dominant position:

“I don’t think it is like a hierarchy thing, you know like when you get your job description and there is that hierarchy. I think everybody in this team is like, they’re all important, and they all play their role.” (Document ‘individual interview 4’ Section 17.1, Paragraph 68).

“It should be a circle with everybody in it..I don’t think it should be ...a hierarchy ...a sort of pyramid with the consultant at the top....the rest of us at the bottom...I think that’s wrong.” (Document 'individual interview 26' Section 0, Paragraph 196).

“I think there’s different levels... cos I think there’s different levels of skills and different levels of input.. but... we are all working to the same thing aren’t we.” (Document 'individual interview 8' Section 28.1, Paragraph 113).

## **vii) Group norms**

Having highlighted the limited time available, and need for individual staff to prioritise time, the data was examined for evidence of group norms or expectations of behaviour. This code featured in 24 passages across 16 documents (see Appendix 8:13). The only expectations reported seemed to relate to expectations for attendance at the multi disciplinary team (MDT) meetings, and this seemed to be an expectation, but not enforced:

“Afterwards while making a drink before doing an interview I said to the SLT that there was good attendance and she said that attendance was required.” (Document 'field notes 1' Section 0, Paragraph 3).

‘No SLT present for MDT - consultant asked and was told by OT didn’t know where they were or if they were coming.’ (Document 'field notes 16' Section 0, Paragraph 7, 101).

“Early morning meeting, just physios and one OT this morning who phoned to see where SLT was but base didn’t know. Dietician arrived after meeting had started.” (Document 'field notes d' Section 0, Paragraph 1).

“Some uncertainty where everybody was....four staff were having a separate meeting to discuss a patient and arrived late into the meeting.” (Document 'field notes 4' Section 0, Paragraph 1).

There was little other data relating to expectations or “unwritten rules of behaviour” operating within the sites, apart from two members of staff who

referred to “the culture” of the site, describing elements of functioning that were not formalised:

“You see in our team there is no gossip...then there’s no...nobody discusses negative things....it’s just cut off...now why that happens I don’t know.....” (Document ‘individual interview 15’ Section 53.1, Paragraph 212).

“Certainly a culture here of well that might be wrong, but what are we going to do about it...rather than examining the wrongness of it....I mean people in this team rather than that’s gone wrong, rather than making a big thing of it, like, would you like a hand....would you like this...or... it’s very much that sort of thing...people look for how they can help each other rather than ha ha it’s their turn to have that...I had that last week as well....” (Document ‘individual interview 15’ Section 55.1, Paragraph 220).

#### **viii) Goal/purpose**

The literature review highlighted a key distinguishing feature of team process as being related to the purpose or goal that is pursued, and also discussed the complexity of identifying goals in healthcare, making this an important area to explore within the data. “Goal/purpose” is the fifth most frequently occurring node, with 129 passages coded across 39 documents (see Appendix 8:11 for full listing).

Staff were asked, during individual interviews how they would describe the goals for the patients that they were working with. They were then also asked to elaborate whether they felt that they were working to team goals, profession-specific goals or both. The goals described by the staff were of five different types: firstly, to enable patients to leave the hospital (for two of the three settings), secondly, to provide a high quality of care, thirdly, to achieve a satisfactory patient outcome, fourthly, patient-centred goals, and finally goals associated with an individual’s specific profession,



a) Goals related to going home/discharge from hospital

For many staff in the hospital settings the goal or purpose of their work related to the patient being discharged from that location:

“To make sure they’ve got a safe discharge to wherever they may be going to, but all the relevant areas have been covered to get them to that point.” (Document 'individual interview 2' Section 32, Paragraph 64).

“Generally the team goal is what the plan for discharge will be....so um...as a full team in mdt ...then that is the question we will get by the consultant....you know what are the plans for discharge....how long are you gonna work towards it.” (Document 'individual interview 26' Section 0, Paragraph 72).

“My aim is to get home as soon as I can to my family in hopefully as fit a state as I can be.” (Document 'patient interview a' Section 36.1, Paragraph 145).

b) Goals relating to quality of care provided

Other staff described goals more in terms of giving the best care to the patients while they were receiving input from them:

“To improve and maintain the highest standards of care, um, for patients, carers and all sorts staff, to provide a environment in which people are safely and successfully nursed to make as good an improvement as they can, um, working with patient relatives, other members of nursing staff, but also other member of multi disciplinary team.” (Document 'individual interview 3' Section 2, Paragraph 4).

“We’ve all got that shared information and then we can provide the best care hopefully, and is that is what we do.” (Document 'individual interview 6' Section 3.1, Paragraph 12).

“Working towards the same things and sharing different ways of how it might be achieved....” (Document 'individual interview 27' Section 0, Paragraph 52).

c) Goals relating to patient outcome

Some staff saw the purpose more in terms of the outcome for the patient, looking towards the future and future level of functioning.

**“The goal is for every patient in this unit to become a useful member of that community again and for us as a team to enable that to happen.” (Document 'individual interview 1' Section 28, Paragraph 56).**

**“To get them back to as normal as possible.” (Document 'individual interview 5' Section 1.1, Paragraph 4).**

**“I see our team aim as just as being able to work together to enable the patient you know to get back to as much a normal sort of you know state as possible.” (Document 'individual interview 12' Section 3.1, Paragraph 12).**

#### **d) Patient-centred goals**

**Some of the staff highlighted the role of the patient and the family in the care received, describing the importance of the patient and family perspective, or describing the goals as being “patient centred” or “patient focussed”:**

**“We’ve all got the same aim, the same goal, that is to work together really, it’s patient focussed.” (Document 'individual interview 7' Section 1.1, Paragraph 4).**

**“On the whole the common goal is to be able to allow.... It’s got to be patient focussed and it’s got to allow, provide the rehab in the best way that we can and cater for that individual, cos sometimes what we might want as professionals might be different to what the patient and the family want.” (Document 'individual interview 11' Section 2.1, Paragraph 8).**

**“My common goal I suppose on reflection that’s a common goal of the team is to be able to provide patient centred rehab....” (Document 'individual interview 11' Section 1.1, Paragraph 4).**

**Staff described the challenges associated with patient-centred goal setting:**

**“There isn’t anything sort of written down....there isn’t anything in writing....I think all of the team is....very much in to what the person wants...and they are quite people focussed and they’ll try their best where they can to work the goals around the people...but where we come unstuck sometimes is where that goal is unrealistic...” (Document 'individual interview 34' Section 0, Paragraph 132).**

**“I don’t see how you could have a standard answer to that question....I think each patient would answer differently as well....so there you go...vagueness....” (Document 'individual interview 31' Section 0, Paragraph 80).**

Also there was a feeling of a difference between goal setting in a community setting and a hospital setting:

“I think it is very much like that in community....though it...very much the patients are in charge of what’s going on....whereas on a ward....when I worked on a stroke unit before....um...I think you are very much in a position of authority whether you like it or not...you are....and basically at the end of the day you are working with that patient to get them home...whatever that takes...so long as they are fit enough....to go home and they are going to be safe...that is what you are working towards...and I don’t think necessarily that the patient’s goals come in to that greatly....until they get home and it’s right...what do you...where do you...want your life to go...what do you want to achieve....I don’t think they get the chance to come up with that until they come home....” (Document 'individual interview 30' Section 0, Paragraph 156).

“(In community) you tend to set broader goals.....um....probably you can get very stuck in a rut in terms of....your physiotherapy objectives.....whereas patients may want...to go outside a bit more which could be seen as an integration type thing...that could fit into anyone’s category really....it could be an occupational therapy issue but I think it’s broader because you are working in the community....um...as opposed to in patients or...even musculo skeletal where you are perhaps trying to increase range of movement in a joint....whereas perhaps your goal for a stroke patient is to get them going to a day centre.” (Document 'individual interview 33' Section 0, Paragraph 112).

e) Profession-specific goals

During some interviews staff considered site goals, but went on to emphasise how this linked or did not link with goals that they as a professional would set, with some staff describing how the goals would fit together and others emphasising the difference between profession-specific goals, or the difficulty of setting a joint goal:

I suppose that is the overall goal...nurses would talk more about medication and continence and things....and physios would talk more about mobility...and transfers, and OTs would talk more about what we call activities of daily living, so that’s washing dressing cooking...everyday things like that.” (Document 'individual interview 15' Section 14.1, Paragraph 56).

“There is ...I..again to be honest I rarely look at them...cos the goals are mainly...from..set from a rehab side...mainly set from the therapy point of view....and that’s usually set by the therapists...yeah it’s discussed in the MDT, but they normally set the goals...and work towards them....that’s

their part of the job if you like..." (Document 'individual interview 23 Section 0, Paragraph 80).

"I think the doctors sometimes come from a different angle...than the therapists...especially depending on which consultant it is...I mean x goals are when can they go home when can we discharge them...and....what is their medical problems and do we need to organise this investigation ..or do we need to assess that...whereas the therapy goals...are walk with one stick twenty meters by next week....I suppose they are quite different goals..." (Document 'individual interview 25' Section 0, Paragraph 92).

#### **ix) Training in joint working**

This variation between types of goals described, and reported difficulty in formulating shared goals could be associated with a need for training in joint working practice. The data was analysed for information relating to the sites or individuals receiving specific support to enable them to function as a team, the final area of team process to be described. There was great variability in training reportedly received, with some staff reported no formal training in joint working practice. In the data there were 40 passages coded to "training" across 23 documents, (see Appendix 8:14.) for example:

"No." (Document 'individual interview 1' Section 84, Paragraph 169).

"Not that I can ...(remember)." (Document 'individual interview 6' Section 30.1, Paragraph 124).

Some staff reported that they had received input when undergoing their initial professional training:

"When I first started my training we did about what is a team, things like that, and I think that were it." (Document 'individual interview 4' Section 12.1, Paragraph 48).

"I am sure they did....I cant pinpoint exactly...I don't think it was touched on a lot...probably only one lecture if that." (Document 'Individual interview 19' Section 0, Paragraph 4).

"Not really it were.....it were like mentioned about teamworking...we've got to work as a team...and there were some communication units..." (Document 'individual interview 21' Section 0, Paragraph 98).

Some staff reported examples of training that they had received, but were unsure of the value of it:

“Not specifically on teamworking. We’ve had time out days... that have helped us address and respect different professional areas, and get a perspective into what their priorities might be as opposed to what your own individual professional priorities might be. So I think that gives you some insight, but it’s coming back into the workplace and applying it....” (Document ‘individual interview 11’ Section 36.1, Paragraph 144).

“It was about different ways of working and who you are in the work place quite broad things you know about different management styles and things like that.....it was all kind of team building exercises and post it notes everywhere..it was really good....LEO...that was it..I thought it was really good...don’t know about the application of it..but you know..in practice..I didn’t really have a focus for applying it...” (Document ‘individual interview 14’ Section 31.1, Paragraph 124).

#### **4.3 COMMUNICATION**

A search of the data reveals the frequent occurrence of the word “communication” within the interviews, and field notes with a count of 121 instances of use of the word in the data. This suggests the significance of the element of communication in joint working. In the a priori framework “communication” was given a single coding, but as the data gathering progressed the frequency of occurrence and different forms of communication led to the creation of child nodes within this parent node, gathering together material relating to formal and informal communications, written communication versus spoken, and the notion of confidence in communicating. There are 109 paragraphs coded to the general node of “communication” across 32 documents, with data relating to “formal communication”, “informal communication”, and “written communication” totalling 154 paragraphs between them. “Good communication” was frequently a feature of staff discussion regarding their work with colleagues, and featured strongly as a response when asked during the

individual interviews what was considered to be the most important attribute for good joint working, for example:

“I think communication has got to be somewhere at the top at the list..but being able to communicate to other people and being able to listen to what other people are saying.” (Document 'individual interview 11' Section 15.1, Paragraph 60).

“I suppose the fairly obvious ones of communication...well I say it's obvious but actually you know not everyone has that kind of approach I suppose.” (Document 'individual interview 14' Section 27.1, Paragraph 108).

“It's hard to put into words isn't it...a good team member...somebody who you can actually talk to...probably take a bit of criticism if you need to....and should all have the basic knowledge....but there again we do have these trainees to teach them...you know the novice....but that boils down to communication again doesn't it...you know putting your knowledge across....” (Document 'Individual interview 18' Section 0, Paragraph 178).

#### **i) Formal versus informal communications**

As mentioned above, during the data gathering it became apparent that different types of communication were occurring within the study sites, which could be classified as either formal or informal communication exchanges between staff. Staff described the importance of formal, planned communication episodes, at scheduled “MDT meetings”, and scheduled “handover meetings”, often seeing them as the main means of communication between different professionals. “Formal communication” was coded to 30 passages across 13 documents (see Appendix 8:15. and 8:16), for example:

“The main mechanism is through the MDT meetings...that's the formal mechanism for joint working.” (Document 'individual interview 29' Section 0, Paragraph 36).

“Well, it's nursing....well when you get here at seven you've got your hand over between night staff and morning staff....and same in the afternoon...morning staff hand over to afternoon staff....” (Document 'individual interview 20' Section 0, Paragraph 44).

“They all work together... because when they do the handover they are all told what’s been happening on the ward.. during the day and that.” (Document 'patient interview c' Section 13.1, Paragraph 50).

Although these formal channels were considered by staff to be an important focus of communication, and tended to be the most commonly reported means of communication between individuals, there was also informal communication occurring at the study sites. These informal communications linked with the location of staff, and the ability to be in contact, thus can be associated with the organisational conditions data reported earlier. The frequency of occurrence of data coded to “informal communication” suggested that this may have been the most significant communication channel, as data coded to “informal communication” occurs more frequently than “formal communication”, with 75 passages across 31 documents, for example:

“It might not necessarily be a meeting... it might just be passing on corridor.” (Document 'individual interview 8' Section 19.1, Paragraph 76).

“I’ve always felt that having a bit of a ten minute gossip at the nurses station...does the world of good - it doesn’t even have to be around the patient...it does a world of good around how the team works....” (Document 'individual interview 24' Section 0, Paragraph 102).

“Standing by desk were two physios and two OT’s.....out at nurses station a physio talking to a nurse.” (Document 'field notes 15' Section 0, Paragraph 1).

“I don’t pick up things in passing...the way that I do here...and you can pick up an awful lot in passing...you don’t even realise.” (Document 'individual interview 14' Section 10.1, Paragraph 40).

“There’s a lot of informal stuff going up...especially with the physio and the speech person and maybe a bit with the nurses....that’s a quick chat but not actually formalised...” (Document 'individual interview 27' Section 0, Paragraph 92).

There was evidence that the informal communication systems were also perceived by the patients:

“Yeah...teamwork...they all communicate cos they know what each other’s done....they say oh you’ve got to do so and so and oh yeah...she told me this....or if...you have improved they say oh yeah we had a talk about you this morning.... (Document 'Patient interview J' Section 0, Paragraph 242).

The importance of these informal communication systems was further emphasised by the data suggesting that formal mechanisms may have limitations:

What I have learned since I’ve been here is....you have to just lay yourself open and you say this is what I’m doing...and you have to be able to do it informally....sort of not save everything up for MDT....cos it’s too quick...it’s too quick so you have to be finding people out and making time...to speak to people...time to speak to relatives....” (Document 'individual interview 26' Section 0, Paragraph 112).

“That weekly MDT meeting is the time we all sit down although it does feel very much that it is the consultant being god and people don’t necessarily speak out..what they’ll say to you..informally is very different to actually what gets said...in there which I find very frustrating..people become more reticent in that environment...” (Document 'individual interview 27' Section 0, Paragraph 92).

Also, informal communication systems were significant as part of team process elements, in the formation and functioning of close working relationships, for example:

“Again thought about the ability to chat informally and get on with other people, need to have this ability to get on in this team.” (Document 'Field notes w', Section 0, Paragraph ).

“You know often stop to have a bit of a chat....and they know you then...and if they’ve got a problem...or they’ve ...they will come and ask you...whereas if you’re the strange person they never talked to..” Document 'individual interview 24' Section 0, Paragraph 106).

It is also important to note that informal communication systems were linked by staff to the sharing of knowledge and skills that will be discussed in the following section considering professionalism, for example:

“It’s amazing what you learn from just having two minutes talking with this person who got that person up this morning...gave them a wash....and oh...right they’re doing that...you’re having problems with that..” (Document 'individual interview 24' Section 0, Paragraph 118).



## ii) Written communication

A means of formal communication that was used at all the sites was written information, with 49 paragraphs coded across 20 documents in the data (see Appendix 8:17), for example:

“We’ve got us diary any things ... washing and dressing practice... what physios do in a morning.... so in communication it’s writing down yeah....” (Document 'individual interview 9' Section 12.1, Paragraph 48).

“No it’s just the main diary...well you’ve got a doctors book for each side....and then you’ve also got a diary as well....and then there’s a diary on reception...so there’s a lot of things...” (Document 'individual interview 20' Section 0, Paragraph 52).

“Above the bed it just says the patients name, the diet, um...and if there’s any messages from physio or OT, for example this patient can walk one way to toilet with supervision to one..” (Document 'individual interview 21' Section 0, Paragraph 64).

“They do a daily record of you....in the book.... yeah...they must write miles...” (Document 'patient interview f' Section 0, Paragraph 188).

Whilst there were seemingly many different forms of written information available, it was interesting to note that staff frequently described the limitations of written communication systems:

“I’m not sure about the #..I have a lot of issues with those....but ...nice idea..but in practice you spend...you know sort of half an hour trying to find the bit in the notes that you want... I think it would be clearer to ...if we all had our own sections but in ....within the same file...cos it’s there..the information is there cos ...they need to read what I say but it can be designed ...” (Document 'individual interview 23' Section 0, Paragraph 76).

“Even writing in the # that everyone can read it’s still worth telling a nurse that you have done such and such or you are waiting for equipment...or whatever..” (Document 'individual interview 27' Section 0, Paragraph 112).

“The # is a great idea...unfortunately nobody reads it...in my experience.... it’s a shame cos you know everything...well a lot of people write down what they do in it and ....but it ...like I say it’s not always read.” (Document 'individual interview 26' Section 0, Paragraph 104).

It seemed therefore that whilst considerable time and effort was being directed to these written forms of information transfer, there was a tendency for more informal systems of information transfer to be the more significant amongst staff who worked closely together. However for staff in less frequent contact, or where there was a less stable working group, written forms of information transfer seemed of importance, for example:

“Yes cos the nurses have...such a high turn over its easier for them to refer to something...” (Document 'Individual interview 25' Section 0, Paragraph 52).

### **iii) Confidence**

Confidence can be linked to an individual's personality, in the data however staff most often linked confidence to the communication aspects of joint working. The data contains 39 passages coded to “confidence” across 20 documents, (see Appendix 8:18) for example:

“Meeting depended on individuals speaking up and not waiting to be asked, and being confident enough to give opinion or ask questions.” (Document 'field notes a' Section 0, Paragraph 41).

“It is getting their confidence up so I think if somebody is not confident they are not going to communicate and if they don't feel that they have the skills then they are not going to, they'll probably be anxious and not come across as they naturally would if they felt confident with what they we're doing.” (Document 'Individual interview 2' Section 54, Paragraph 108).

“Not too quiet....you have to be a bit assertive...you've got to chase doctors....you can't sit in the corner and be quiet....you just wouldn't get on..” (Document 'individual interview 19' Section 0, Paragraph 212).

“I think as well if you are confident in what you are doing you can then convey your plans to other people...” (Document 'individual interview 25' Section 0, Paragraph 176).

Staff highlighted that confidence was often linked to length of professional experience, and recalled changes in their own level of confidence and thus ability to work jointly:

“I feel...more confident in my role from when I first came....I’m more vocal and if things upset me...I’ll say something..” (Document 'individual interview 20' Section 0, Paragraph 149).

“I think you need to be confident in your own abilities of your profession...I think you need to know where you’re coming from first.” (Document 'individual interview 25' Section 0, Paragraph 180).

“As you get more experience, you get more confident.” (Document 'individual interview 7' Section 18.1, Paragraph 73).

This increased confidence with years of working experience links in with professional development and will be further considered in the following section. Having presented the data relating to team process elements within the study sites, this data description section will now move on to the consideration of elements relating to professionalism.

#### **4.4 PROFESSIONALISM**

The literature review discussed the definition of a professional and the history and origins of professionalism. It highlighted the claim to a particular body of knowledge and skills as a core element marking professions apart. The data relating to knowledge and skills will therefore be the first area described.

##### **i) Knowledge and skills**

In relation to professional knowledge, staff discussed the importance of exchanging knowledge and skills and the benefits of this sharing of knowledge for them. The data also highlights the significance of depth of knowledge, with staff linking differences between professions as being a difference in level/depth

of specialist knowledge. The “knowledge and skills” code was the fourth most frequently occurring code in the data, occurring in 134 passages across 39 documents, (see Appendix 8:19).

Staff described the importance of exchanging information and skills in joint working, for example:

“Skills of information sharing/swapping seems to be a key point again - sharing of profession specific information.” (Document 'field notes b' Section 0, Paragraph 2)

“Cos we work in such a close interprofessional team then we all learn from each other.” (Document 'individual interview 4' Section 5.1, Paragraph 20).

“Sharing information, and knowledge, yeah.... I mean I am always going down there and asking therapists what they think, um can you tell me about this because I’m not quite sure, so there’s always that sharing of knowledge as well.” (Document 'individual interview 7' Section 9.1, Paragraph 37).

“That is where I got a lot of my learning really...my sort of stroke knowledge was by working...so closely together with other professions.” (Document 'individual interview 26' Section 0, Paragraph 48).

They also highlighted the importance of depth of knowledge, as being an important marker in distinguishing professionals apart from each other, for example:

“You need the background knowledge to be doing what you’re doing effectively....I think...I think it probably does come down to effectiveness...I mean anybody can go and sit...with a patient and do some language stimulation but not everybody knows why they’re doing it in which case...they might not be quite on the right track.” (Document 'individual interview 29' Section 0, Paragraph 172).

They wouldn’t have the knowledge or the clinical decision making skills to be able to base why you might be going down that road on say a physio treatment side. That’s when things have to be fed back up and somebody who has got the specialist knowledge say, be able to filter that down.” (Document 'individual interview 11' Section 19.1, Paragraph 76).

“I think you can do up to a certain level and I think that nursing auxiliaries are a good example, that yeah it works at a level, but you cannot dilute that depth of knowledge.” (Document 'individual interview 10' Section 26.1, Paragraph 104).

“Other people have got them skills to assess patients but not that specialist what that OTs have got.” (Document 'individual interview 4' Section 19.1, Paragraph 76).

The linking of individual professions with having greater *depth* of knowledge and skills rather than *particular* knowledge and skills raised the question of how junior staff who may have recently completed training fitted in to the locations studied. The sites studied, included staff who had worked in stroke care for many years (see Table 4 for breakdown of staff participants by number of years qualified), and who had been able to absorb knowledge from other professions over these years. Elements of the data relating to this area were gathered under a node called “how long qualified” (see Appendix 8:20) with 49 paragraphs coded across 21 documents.

Within this node an element that was highlighted by staff was the importance of seeking guidance from senior colleagues, for example:

“When I first started I could communicate with people but it was having the confidence with your skills and things, so I probably just communicated with my senior, and then the information would be passed on through them rather than through me.” (Document 'individual interview 2' Section 50, Paragraph 100).

“I think when you are newly qualified you um you link to someone more experienced, and sort of follow them really.” (Document 'individual interview 7' Section 18.1, Paragraph 73).

Staff also described how their joint working practice had changed as they had gained experience, for example:

“I think the development of it comes alongside so many other things as well. You've got to be grounded in your actual discipline first I suppose

in order to be able to contribute in a team.” (Document ‘individual interview 14’ Section 5.1, Paragraph 20).

“So...when you first qualify that’s what’s on your mind...what’s my plan what am I doing with this patient...you tend to think of yourself more...but then...the more experienced you get..you’re more comfortable with what you’re doing physio wise and you think a bit wider...oh I need to speak to so and so about this...I need to refer on about that...lets have an MDT on it....lets have a case conference...I think the more experience you get the more...um efficient you get and thinking more widely around...around exactly I need to get this patient going up the stairs or...something...more around how are they going to get home...do I need to speak to the OT...what’s happening with social services...community physio...” (Document ‘individual interview 25’ Section 0, Paragraph 164).

## **ii) Professional role**

In the starting framework professional role and professional identity were formulated as separate coding categories. As the coding process progressed it became apparent that separating role from identity was proving difficult, so the categories were combined. Data relating to the role of each of the individual professions will now be described, before moving on to an examination of roles and boundaries.

Professional knowledge was discussed in the previous section in relation to professions being distinguished by different depth of knowledge. This section will present data that represents an alternative view, that it is the type of knowledge and skills that determine the role and identity of each profession rather than the depth, and considers descriptions of working relationships between individual professions and other team members.

### **a) Nurse role and identity**

Data describing the role of the nurse in the sites studied could be considered as relating to one of two knowledge and skill areas. Firstly the nurse role as

personal and basic needs care, and secondly the nurse role in relation to medicines and medical needs. Data relating to these two areas will be presented first, followed by data describing working relationships between nurses and other staff. Data coded to “nurse role” is the most frequently occurring of the professional roles, being present in 37 documents, with 110 passages, (see Appendix 8:21) for example:

- **Knowledge and skills -Personal and basic needs care**

“Well after we’ve received hand over....our goal would be to get patients up, give them...washing and dressing...get em ready for breakfast.” (Document 'Individual interview 17' Section 0, Paragraph 10).

“Well....I don’t know...can I say...bum wiping.....uh..well we do do all the hands on cleaning and that of patients...” (Document 'individual interview 19' Section 0, Paragraph 176).

“Then we’ve got the nurses. Three shifts oh they’re good, ring the bell and they’re there. Take you to, well you see I’ve got to have somebody take me to the toilet, and then they go and then ring the bell and they come back. It might be somebody else and bring you back to wherever you want to be.” (Document 'patient interview c' Section 7.1, Paragraph 28).

“A lot of the care can be extremely personal, and defined as nursing roles.” (Document 'individual interview 3' Section 60, Paragraph 120).

- **Knowledge and skills - Medical needs**

“I think it’s that they think you’re a nurse so you’re things medical and pressure area care and things like that as opposed to rehab the actual rehab.” (Document 'individual interview 5' Section 15.1, Paragraph 60).

“Nurses would talk more about medication and continence and things.” (Document 'individual interview 15' Section 14.1, Paragraph 56).

- **Working relationships**

“I only know the way therapy do it.. and .. I think sometimes nurses have care plans and they have ways of doing things and a way of working that I think sometimes is very different to how we would work.” (Document 'individual interview 10' Section 54.1, Paragraph 219).

“The uniqueness of the nursing role is that it is over a 24 hour period.” (Document 'individual interview 3' Section 54, Paragraph 108).

“I almost feel that nursing are the main bit in the middle as they have the fewest links out...they don't have a main department....they tend to be the ones right in the middle of everything...that are there all the time..” (Document 'individual interview 24' Section 0, Paragraph 122).

“Nurses have traditionally been led by consultants and the way of their training and their practice and everything is all tied in.” (Document 'individual interview 10' Section 56.1, Paragraph 227).

“We pull everything together we're the ones in the middle.” (Document 'individual interview 8' Section 38.1, Paragraph 149).

For each of the other professions within the sites, data will now be presented describing first of all knowledge and skills, and secondly data describing relations between that profession and other staff.

#### **b) Physiotherapy role and identity**

In the data there are 67 passages coded to “physiotherapy role”, across 22 documents, (see Appendix 8:22) for example:

- **Knowledge and skills**

“Physios would talk more about mobility...and transfers.” (Document 'individual interview 15' Section 14.1, Paragraph 56).

“Oh she's been doing exercises and making me do exercises to get me legs moving, and then they walked with me one at the front and one at the back, and then two at the side and then I had one walking with me, and then I walked with a stick, but that didn't work out.” (Document 'patient interview c' Section 7.1, Paragraph 28).

“Physios did taught her...cos you start...by what they call transferring ...that's transferring you from bed to chair....and umm...I must have been a difficult case so they had to train me wife on how to move me from bed to chair...and physios trained her in that...” (Document 'patient interview h' Section 0, Paragraph 254).

- **Working relationships**

“Well they tell the nurse what to do..” (Document 'patient interview b' Section 7.1, Paragraph 28).



“It’s usually the physios who do an assessment...you know as to the moving and handling.” (Document 'individual interview 20' Section 0, Paragraph 92).

“The main people I thought were the physios....” (Document 'patient interview h', Section 0, Paragraph 36).

“OT and physio from my point of view seem to be...but maybe that’s cos I don’t totally understand the difference...of what they do anyway.” (Document 'Individual interview 29' Section 0, Paragraph 160).

### **c) Medical (doctor) role**

There are 80 passages coded across 31 documents for “medic role”, second in number to “nursing role”, a large number considering that at two of the sites patients were required to be medically stable to be transferred there, and that one of these sites had no doctor as part of the team. See Appendix 8:27 for full node listing, passages contained in the data are for example:

- **Knowledge and skills**

“Medic talked mostly about drugs/medication and was the one who completed case notes. Admitted that he had not seen some of patients and apologised at end for being slow as he wasn’t up to speed with them.” (Document 'field notes 13' Section 0, Paragraph 16).

“Yes we sometimes will look at the consultant as having to do the doctor bit..” (Document 'individual interview 22' Section 0, Paragraph 134).

“Well they just assess you again and see what’s happening.” (Document 'patient interview b' Section 50.1, Paragraph 204).

“I’ve seen doctor x once or twice, I don’t see him no more...” (Document 'patient interview d & e' Section 0, Paragraph 229).

“We know what those patients problems are, in depth and the medics don’t because they only come on...you know... if that patient needs any medical input...or once a week when it’s MDT...that we can guide the medics into what might be a more appropriate..” (Document 'individual interview 11' Section 26.1, Paragraph 104).

- **Working relationships**

“Medic and consultant seated to one side of room, medic in window seat seemed a little distant physically from all others, and often missed or chose not to take part in discussions, only becoming involved when directly asked a question or asked to make a recommendation regarding further treatment.” (Document 'field notes a' Section 0, Paragraph 39).

“Medic arrived nearly half an hour later, entered room with no apology for lateness, but “who are we up to”. OT offered to move to one side, consultant took over case files.” (Document 'field notes n' Section 0, Paragraph 6).

“The consultant is primarily concerned with the patient.” (Document 'individual interview 25' Section 0, Paragraph 196).

“Nurses emphasising need for medical confirmation of discharge for patients indicated, and other team members also using medic as discharge tool, and using medic as authority figure to give emphasis to information or decisions made e.g. talking to difficult relative.” (Document 'field notes n' Section 0, Paragraph 6).

“What could have been a very effective meeting with the doctor...backing up what we are saying it came away ...it felt like ...oh I'll investigate this standing lark then...maybe we can get...and that is one area where I feel where the medics just haven't a clue what we do half the time..” (Document 'individual interview 24' Section 0, Paragraph 86).

#### **d) Speech and Language Therapy role**

The data contains 31 passages coded to “speech and language therapy role” across 17 documents, (see Appendix 8:23 for listing) for example:

- **Knowledge and skills**

“Well what she tried to do was....to get you get you talking about something which you're interested in...then she can assess what needs to be done.” (Document 'patient interview h' Section 0, Paragraph 104).

“Yeah I saw her last week.....but basically I've stopped...she give me one or two exercises to do....to try and to practice your voice....cos the main thing you might think...why do you need a big voice....but uh...the main thing is calling for the nurse in the night.....yeah.” (Document 'patient interview f' Section 0, Paragraph 144).

“Well she's been helping me to swallow.” (Document 'patient interview c', Section 11.1, Paragraph 40).

- **Working relationships**

“In fact it’s speech therapy that they’re least likely to need....if anything...when I go to the MDT meetings I’m often only involved with a few patients whereas OT and physio will be involved with the whole caseload pretty much....” (Document 'individual interview 29' Section 0, Paragraph 124).

“I would say that if anybody had a communication problem I think the others made a very good guess at what they think is wrong and I think they can identify problems that in the past might have been overlooked if they are quite discrete, which is excellent, and that’s where I see it benefiting them, but in the end they are never going to be able to find out the exact nature of the problem and where to start helping it...” (Document 'individual interview 10' Section 24.1, Paragraph 96).

“If somebody is struggling with a swallow, when I go and see them think oh... are they on thickened fluids, or oh... how are they swallowing so I can feed back to the SLT cos they’re not going to be there all the time.” (Document 'Individual interview 2' Section 62, Paragraph 124).

**e) Occupational therapy role**

The data contains 56 passages across 21 documents coded to “occupational therapy role”, (see Appendix 8:26 for full listing) for example:

- **Knowledge and skills**

“OT role in the meeting was to give information on preparation for home.” (Document 'field notes m', Section 0, Paragraph 16).

“It’s well who co-ordinates the whole package who’s really there to sort it all out to make sure they go home with everything that they need..and that to me feels a bit hit and miss...kind of ..often the OT picks that up.” (Document 'individual interview 27' Section 0, Paragraph 112).

“Aye we have....to cook...an egg and pour boiling water and that....that’s it...cos I don’t visit (unintelligible) aye and there’s a home visit n all isn’t there.” (Document 'patient interview d & e', Section 0, Paragraph 63).

“Well they try, they try to get you to fit in to civilisation...like you did before you know, so you don’t have any accidents and the rest of it...and they do a lot in your house...that’s what I’m waiting for now... I went home for them to you know to.....take me home for the day last thursday....took me home last thursday...” (Document 'patient interview f' Section 0, Paragraph 80).

“The skills of moving and handling is particularly something I learned from OT’s you know all my handling of the upper limb....hasn’t come

from anybody within the physiotherapy team...it's come from OT's." (Document 'Individual interview 33' Section 0, Paragraph 196).

"Physio and OT we're sort of working towards um...similar goals so from a physio point of view it's much more physically based where ....we translate that into a functional....um..thing..." (Document 'individual interview 30' Section 0, Paragraph 96).

- **Working relationships**

"I asked the OT whether they always lead the meetings and apparently most often they did, didn't know why particularly, whether it was because of dominant personality but usually did, physio also joined the discussion and agreed that it was most often about going home issues which OT would take the lead with." (Document 'field notes 0' Section 0, Paragraph 1).

"I actually feel it's important for me to put my five pennies in to shout ..in a way...in a way I am shouting for him...in a way or shouting to progress with where are we going cos it's very complex." (Document 'individual interview 27' Section 0, Paragraph 84).

"Because so many of my patients have cognitive and memory problems and because that has such an impact on whether there's barriers to recovery for speech that we've ended up doing joint assessments together...." (Document 'individual interview 31' Section 0, Paragraph 188).

#### **f) Other professions**

The data relating to other professions has been combined due to small numbers of occurrences (20 passages for dietetics, 18 passages for psychology, and 6 for other professions such as social work). See Appendix 8:24 and 8:29 for full listing, examples include:

"Say if you're looking at somebody whose got memory problems you'd be looking at using neuropsychology and neuropsychological assessments which is the skills that we bring...." (Document 'individual interview 13' Section 20.1, Paragraph 80).

"So yeah occupational therapy they do some cognitive assessments...um..nobody else does therapy..nobody else..I think other people have knowledge of psychological approaches..behavioural approaches and things like that but really they'd be asking us for guidance." (Document 'individual interview 13' Section 21.1, Paragraph 84).

“Then there’s been a what do you call her, I had words with her... she was asking questions, count down from 20 and can you remember this... do you want to talk about it.. but I said no.. if I have any problems I can work them out...cos when the doctor offered me some prozac I said no way.” (Document 'patient interview c' Section 19.1, Paragraph 74).

“As dieticians maybe we are a little bit kind of out on a limb, really, we’re often not in a true multidisciplinary team...” (Document 'individual interview 12' Section 43.1, Paragraph 172).

“She’s been working out whether to have soft or like mash or...” (Document 'patient interview c' Section 12.2, Paragraph 46).

### **g) Assistant role**

At all three sites there were non-professionally qualified staff, who were used to support the qualified staff and continue care programmes set. They were referred to by different terms at each site, and could have a wide variety of backgrounds, although the most frequent background was a nursing assistant or care staff. See Appendix 8:28 for full node listing. These staff carried out a range of duties, using knowledge and skills from all the professions at a site:

“I think the common denominator is the assistants, who come through therapy and have an insight into what hopefully have an insight into what we do from the therapy side, have an understanding of what each of our professions....” (Document 'individual interview 11', section 8.1, Paragraph 28).

They were often viewed by staff as being an important link between the individual profession. Here again, as with the “teams within a team” discussion, the visual image data is helpful in exploring the role of these assistants within the declared teams. In some of the visual image data they are placed centrally in the team diagram, and this was echoed in staff descriptions of assistants as occupying a central or co-ordinating role:

“I think the (assistants) on the ward are the glue that hold everything...together”. (Document 'individual interview 24', Section 0, Paragraph 106).

“I think we’re the ones who try and see whether they are all working together....” (Document 'individual interview 8' Section 37.1, Paragraph 148).

In addition to their central or co-ordinating role, they also had importance as their role was emphasised as providing the ongoing continuity of care:

“The assistants are the ones that are seeing these patients 24 hours seven days a week, and often they are the ones that will come back and say, so and so has got a problem transferring..or you know towards the end of the day they’re not great...and... have we noticed this...” (Document 'individual interview 11' Section 33.1, Paragraph 132).

“The assistants are invaluable in providing information about how people are doing and they are with the patients throughout the day.” Document 'individual interview 12' Section 41.1, Paragraph 164.

“Because I may not have contact with the patient for a month or so by which time....things change and the assistants see it changing...” Document 'Individual interview 33', Section 0, Paragraph 96.

A summary table showing the predominant features of each role described above is presented below.

Table 7. Perceptions of individual roles.

Nurse	<ul style="list-style-type: none"> <li>● Personal and basic needs</li> <li>● Medical needs</li> <li>● 24 hour care</li> <li>● Co-ordinator</li> </ul>
Physiotherapist	<ul style="list-style-type: none"> <li>● Mobility</li> <li>● Moving and handling</li> </ul>
Doctor	<ul style="list-style-type: none"> <li>● Drugs/medication</li> <li>● Assessment</li> <li>● Discharge decisions</li> </ul>
Speech and Language Therapy	<ul style="list-style-type: none"> <li>● Communication</li> <li>● Swallowing</li> </ul>
Occupational Therapy	<ul style="list-style-type: none"> <li>● Preparation for home</li> <li>● Moving and handling</li> <li>● Functional physical needs</li> </ul>
Other professions	<ul style="list-style-type: none"> <li>● Eating</li> <li>● Psychological therapy</li> </ul>
Assistant	<ul style="list-style-type: none"> <li>● Knowledge from all professions</li> <li>● Link/co-ordinator</li> <li>● Ongoing/continuous care</li> </ul>

### **iii) Role boundaries and blurring**

As a key area of government policy (highlighted in the background to the study section), the data was searched to find reference to professional boundaries and any blurring of professional roles. The data indicated evidence of a blurring of boundaries between the occupational therapy and physiotherapy professions, and some evidence of nursing taking on a role that encompassed elements of the therapy professions. The data contains 39 passages coded to role blurring, (see Appendix 8:31), with staff describing evidence of boundaries becoming less clear, for example:

“Here it has at times gone the other way...in that actually boundaries are getting slightly blurred.....um...because the home visit for example is an area which is predominantly the OT...area and it’s for us to set it up for us to decide who goes...and it gets very much on here like it’s a joint thing with the OT and physio.” (Document 'individual interview 22' Section 0, Paragraph 108).

“I don’t think... for us on here there’s the clear boundaries cos we have multidisciplinary working that’s how well it works...cos ...you talk to a team of people and they will give you their opinions.” (Document 'individual interview 16' Section 10.1, Paragraph 40).

“I mean there are things that aren’t clearly defined...that’s not necessarily a bad thing...there are things that are not clearly defined..this is a physio role..this is an OT’s role..we sort of share it..and whoever is working closely with the patient does that....but you know...things like transfers and um...and that sort of thing .....some people might say ADL is really an OT side and mobility is really physio...but I mean I’ve got to look at how the patient gets to the toilet...and that’s mobility...and similarly the physio...got to look at...if the patient can stand but if the patient can stand and wash themselves, or can they stand and make a cup of tea so we do overlap a lot...” (Document 'individual interview 26' Section 0, Paragraph 36).

Some staff linked this blurring of roles to availability of staff, or time availability, for example:

“I mean that’s very much blurring of roles..cos we’re not here at night.” (Document 'individual interview 24' Section 0, Paragraph 58).

“You could take on that role without really knowing what it’s about....so I think it partially comes about....the most important thing is knowing what people do...how complex their jobs are...and I think that although I can do certain aspects of that....I know I am not as good as an ot...and experience...similarly if someone from a more speech point of view....if I go and see somebody and they’re dysarthric I am quite capable of giving them basic dysarthria exercises.....I know that the speech and language therapist is not going to be there for another couple of days...and I am quite happy with um...how to help people with their language....” (Document 'individual interview 24' Section 0, Paragraph 66).

“A little bit, I would say there is role blurring on here.. I think when it’s necessary there is.. if people are around.. then you don’t necessarily need to have to although.. you do try and engage other people in trying to help you make that decision even though it’s not necessarily their role... I think if you’re the one that’s there, if you are the one doing something with them, and it naturally imposes upon you to do aspects of for example, cognitive aspects, if it means spoiling that session if it means waiting for an ot to do it, but then go to them afterwards and say look I did this I think it’s something we need to discuss together.” (Document 'individual interview 10' Section 18.1, Paragraph 7).

In contrast to this reduction in defined roles, the data also provided evidence of role clarity amongst staff and clear boundaries between professional groups, often linked to the depth of professional knowledge, described earlier. In the data 143 passages (the third most frequently occurring node) are coded to “role and identity – know boundaries” (see Appendix 8:30), with staff reporting that professional role boundaries remained clear, for example:

“All professions seemed to have clear role, each looking to other where appropriate e.g. a question asked by family. Physio movement, OT provision of equipment, nurse advising on medication and daily care e.g. toileting and washing.” (Document 'field notes g' Section 0, Paragraph 2).

“I know what my job is...and I know what other peoples job is...I think... I don’t overstep the boundaries and I don’t think they do either.” (Document 'individual interview 7', Section 11.1, Paragraph 45).

“We’d all expect to do something about it but people would go to the person they would know would be the best source of identifying what to do about it. So here there’s not conflict with people deciding without going to the right person first...” (Document 'individual interview 15' Section 17.1, Paragraph 68).



“Well I wouldn’t ever walk somebody that I knew the physios haven’t walked...” (Document 'individual interview 15' Section 21.1, Paragraph 84).

“For example I might sit down and look at the psychological and emotional needs of a person but there comes a point where you might think to yourself that’s as far as I can go I’ve acknowledged that, made that a goal but I need to refer on to the person that’s best placed.” (Document 'individual interview 16' Section 5.1, Paragraph 20).

“I was just thinking that what you are talking about...is knowing each others roles and competencies is almost depth of knowledge....that what marks each profession apart is actually...everybody has got this genericy surface bit but that once you get...into this real depth of competence...that’s almost where you have got the boundaries....” (Document 'individual interview 24' Section 0, Paragraph 68).

“Well obviously it’s profession led...cos physio and OT are not always the same.....yeah...cos they’re two different professions you see...but they all look for the same thing....and you know...they all talk...but you know physios obviously....see physio side...OT...OT side and so on....”(Document 'individual interview 35' Section 0, Paragraph 68).

#### **iv) Professional identity**

In the introduction to this section it was noted that role and identity had proved difficult to distinguish in the data, so the coding category had been combined. Rather than distinguishing professional role from professional identity, data relating to a distinction between an individuals’ professional identity and their team membership identity became apparent, gathered together under a node titled “team versus profession” (see Appendix 8:34.). As has already been mentioned, the visual image data frequently contained an image of the sites as being a number of professional groupings within an overall grouping – described in this investigation as “teams within a team”.

During the interviews this was further explored by asking participants where they felt their loyalties lay, to the team or to their profession. It has already been

mentioned that staff frequently referred to “the team” in discussions, and it is notable how throughout the presentation of data from the staff interviews, that the term “the team” has been used by staff to describe their working site. In contrast to this espoused team membership, it is interesting to note that there was variation amongst staff as to whether they saw their identity as a team member or as a member of their profession, with size of team, and frequency of contact mentioned as important factors in an individual’s perception of themselves first and foremost as a team member or a professional practitioner :

“I do see myself as part of the physio department....but um..I probably feel my loyalty is more to the stroke unit than the physio department as a whole because it is too big....” Document 'individual interview 24' Section 0, Paragraph 30. Document 'individual interview 30', 2 passages, 400 characters.

“I would say probably slightly a larger percentage to the team...than to the OT service cos I am based here and these are the people that I work with every day....but um...yeah I am still sort of....” Document 'individual interview 30', Section 0, Paragraph 36.

“Primarily I am a physiotherapist and my responsibilities are to the patient.” Document 'Individual interview 33', Section 0, Paragraph 48.

#### **v) Professional power and status**

In the a priori framework power and status were proposed as two separate coding categories, but during the data analysis process these two nodes were merged together as the data suggested that they were inextricably interlinked. The data that was coded to power and status was often also classified within two other nodes (inclusive coding) with links being made to the medical role, and also links to decision making. The influence of power and status in the study sites was therefore related to the role of the medic and especially related to decision-making. “Power and status” features as the ninth most frequently occurring node in the data, with 96 passages across 34 documents, (see Appendix 8:33).

References to power and status in relation to the profession of medicine are for example:

“Written in notes by consultant. Decisions re discharge seem to be taken solely by the consultant, one occasion when he seemed to have put back discharge date, only staff nurse knew about it, no-one else.” (Document 'field notes a' Section 0, Paragraph 39).

“MDT meeting has been moved from today to tomorrow. The decision was made by the consultant”. (Document 'field notes c' Section 0, Paragraph 2).

“There has to be a discharge form which the medics have to sign.” (Document 'individual interview 7' Section 46.1, Paragraph 183).

“But then he (the consultant) deemed that he'd do ward round first and then come to mdt cos he wanted to know what was happening from his perspective but then when we tell him anything what impact is that gonna have on his practice...so that's the thing that medically what's happening is more important than anything that we're gonna tell him about them anyway.” (Document 'individual interview 10' Section 56.1, Paragraph 227).

“The doctor says right don't do it I won't do it.” (Document 'patient interview a' Section 24.1, Paragraph 97).

In the data there are some examples of staff reporting that the particular context of stroke care impacted on traditional power and status assumptions, and all but one of the diagrams of the teams drawn showed the teams as flat non-hierarchical structures (see Figure 4) this was also confirmed by staff descriptions:

“I don't see a consultant being at the top of the tree... because I see that 99% of the time we can manage without one.” (Document 'individual interview 10' Section 59.1, Paragraph 239).

“It should be a circle with everybody in it..I don't think it should be ...a hierarchy ...a sort of pyramid with the consultant at the top....the rest of us at the bottom...I think that's wrong...cos...I think that yes the consultant is the highly paid highly qualified um..professional..but they have quite a limited role..as do I..but...without each piece of the jigsaw you wouldn't get the full picture....for the patient...that's what needed we're all different..different professions and you need....all of them to get the best outcome.....” (Document 'individual interview 26' Section 0, Paragraph 196).

Thus it is interesting to note that whilst power and status issues with the medical profession were clearly in existence at the sites, that status differentials were not perceived to be significant by staff when completing their team drawings.

#### **4.5 THE INDIVIDUAL**

The literature review highlighted the three key elements of the organisation, the team and the individual. Having previously considered both the data relating to the organisational context, and team process, this section will now outline data which is related to the individual practitioners within each study site and how their individual experiences, notions of respect and trust, and thoughts regarding personality informs an understanding of working practice.

##### **i) Previous experiences**

The literature review suggested that there may be variation in the way that an individual viewed joint working, depending on their previous experiences. Staff certainly seemed to have clear recollections of their experiences of working together in other health care contexts and frequently commented that these experiences had been different to that which was encountered at the study sites. Staff all made positive comparisons between joint working at the locations studied and their previous experiences. There are 30 passages coded to “previous experience” across 17 documents, (see Appendix 8:35) for example:

“All this interprofessional working is all new to me really.” (Document 'individual interview 7' Section 21.1, Paragraph 85).

“They (therapists) would come and just take them off somewhere you know.” (Document 'individual interview 9' Section 7.1, Paragraph 28).

“I’ve worked in quite a few teams that have been called multidisciplinary and this is the first one that truly is multidisciplinary...and not just a concept.....” (Document 'individual interview 29' Section 0, Paragraph 112).

“Yes this is different yeah..we’re all having the same problems... there it was like everyone had problems, they might come down and have a moan but you didn’t feel it was shared in the same sense.” (Document 'individual interview 10', Section 50.1, Paragraph 203).

In the individual interviews, staff were asked to consider what aspects of the other locations meant that joint working had been less successful. A variety of reasons were given for the differences including: less successful joint goal planning, and having staff spread around different locations, for example:

“This is totally different, because you hope to see an improvement in this you are working towards the same aim which is to get them home”. (Document 'individual interview 8', Section 7.1, Paragraph 28).

“You’d speak to them on that ward at that time....but prior to that you’d used to have to phone OT and phone physio..” (Document 'individual interview 32' Section 0, Paragraph 169).

In contrast to these positive comparisons between joint working in the present and previous locations, there were examples of some staff (all with many years of practice experience) having a more pragmatic view of the changes being introduced, viewing it as a change in terminology, but not in practice, or a way of working that was not new, for example:

“I mean we’ve done it for years...I mean I was on the stroke unit...sort of as a junior as a senior two and we were doing things then...it really is just reinventing it with new names.....” (Document 'individual interview 28' Section 0, Paragraph 84).

“I’ve seen a lot of things um you know key worker systems, team work, which we did employ on # and we do employ here.” (Document 'individual interview 3' Section 44, Paragraph 88).

This difference in individual experiences created the potential for different views regarding the value of joint working amongst staff at the sites. However, the data described earlier reporting the perceived benefits to staff of joint working (see 4.2 iii, iv, v) may have been a unifying factor, with the perceived benefits outweighing these few reservations in some staff.

## **ii) Respect and trust**

Data relating to respect and trust can be associated with data coded to communication and personality, but emerged during the data analysis as being an area of coding in its own right, with 24 passages coded across 14 documents, (see Appendix 8:38). In the individual interviews staff frequently highlighted the need for respect and trust amongst the individuals working together, in some instances reporting that it was trust and/or respect that was the most important attribute needed for successful joint working, for example:

“I think respecting your team members is probably one of the biggest things...I think that I’ve seen....working for teams.....in general working in lots of locations I’ve worked in.....” (Document 'individual interview 31' Section 0, Paragraph 152).

“When you can do that that’s when it works..and that’s about trust I think.” (Document 'individual interview 13' Section 31.1, Paragraph 124).

Staff described how working relationships were enhanced by mutual trust and respect:

“There are quite strong personalities and it works fine because everybody is respectful of each other.” (Document 'individual interview 14' Section 27.1, Paragraph 108).

“If you give other people respect they give you respect back....and then they listen to you more and they are more willing to work with you..” (Document 'individual interview 25' Section 0, Paragraph 188).

There was one example in the data, of the building up of trust amongst staff being linked to stability and size of the team, important elements of team process described earlier:

“The team’s got bigger...it’s become less of a trusting atmosphere.” (Document 'individual interview 36' Section 0, Paragraph 116).

The concept of trust was also linked by some participants to moves towards role blurring, that was described in the previous professionalism section, for example:

“I think to a certain extent it does....work at the moment...they tend to trust each other so....for example if there is ...somebody on the

physiotherapy waiting list and the OT goes out.....and says you don't need to see them they'll trust their assessment....of...physiotherapy needs and take them off the list...that kind of thing....so there is an element of trust between them.....which will be an important first step to start doing the blurred stuff.” (Document 'individual interview 34', Section 0, Paragraph 112).

However, in contrast to this association with role blurring, it was also linked to role clarity, in the need for trust and respect regarding the specific knowledge and skills of colleagues from other professions, thus also linking with the professional knowledge and skills data presented earlier, for example:

“Sometimes it has to be more of respect that everyone has their place around the table and has an input.” (Document 'individual interview 22' Section 0, Paragraph 134).

“I think consideration for each other within that team...is a big thing and respect for each others skills.” (Document 'individual interview 15' Section 51.1, Paragraph 204).

“I think that if you have a mutual respect and regard for each other....you do question yourself about am I the best person to deliver that.” (Document 'individual interview 16' Section 4.1, Paragraph 1).

“Respect....for other peoples own areas of expertise..” (Document 'individual interview 23' Section 0, Paragraph 112).

There was also a reminder from the patient interviews that respect didn't apply just amongst the staff:

“I think they should respect the patients more of less....rather than treating them as an object...” (Document 'patient interview f' Section 0, Paragraph 204).

### **iii) Personality**

The literature review offered contrasting perspectives regarding the influence of the individual on joint working with some authors highlighting different individual philosophies and personalities as significantly impacting on joint working, whereas others view the individual as of lesser significance. The data

suggests that individual qualities were considered to be of importance by participants, with 39 passages across 21 documents coded to “personality” (see Appendix 8:37). When asked to report what they considered to be the most important quality needed for joint working, some participants identified personality factors as of the most significance, for example:

“I think that I do think that a lot of it is down to personality...I really do....having worked with lots and lots of people over the years you can usually spot the people who...are going to work well in a team and the people who aren't....um...and it tends to be the people who are a bit more flexible.....and um....um...what's another word...flexible and.....sort of willing to muck in for want of a better word...you know you'd be quite happy to make the tea for everybody or wash the pots....or...as much as you would to treat patients....and...you know those types of things.” (Document 'individual interview 30' Section 0, Paragraph 132).

“I think as teams go we work together pretty well...we get on well...um...and uh..we know and certainly the seniors get on well..I think it's quite hard...for ..you know the juniors rotate so often and some integrate really well and some don't..and I think that's down to personality..” (Document 'individual interview 24' Section 0, Paragraph 50).

“I say a lot of it is due to character as well as professional ...your professional knowledge...it's the character thing...I think is quite a huge emphasis....” (Document 'individual interview 34' Section 0, Paragraph 168).

Elements of individual personality that were mentioned by staff as impacting on working practice were: the ability to get on with others; flexibility; and willingness to compromise, for example:

“Everybody gets on well, it's not a sort of .....it's not ...sort of buddy....relationships...it's just professional ones..” (Document 'individual interview 15' Section 41.1, Paragraph 164).

“I think we do alright on here...whether that is personalities” (Document 'individual interview 10' Section 46.1, Paragraph 187).

“I think as well you need a sense of, you need to be flexible quite easy going....um...you know...digging your heels in isn't necessarily the best way to get anything done, you need to be able to compromise...um.. and lose sometimes.” Document 'individual interview 13' Section 31.1, Paragraph 124).



“Just um a willingness to take part I suppose..and I do think on the flexibility one....at the same time assertiveness and a willingness to learn some assertiveness and where you actually stand.” (Document 'individual interview 14' Section 27.1, Paragraph 108).

“I think....it’s down to personalities.....I think you have to have a particular personality to work in a team.....and I think you’ve got to be flexible....I think if you’re rigid then you have made your problems...” Document 'Individual interview 36' Section 0, Paragraph 84).

## **4.6 SERVICE USERS**

### **i) Patient role**

In staff descriptions of the team membership within the study sites outlined in a previous section, there was variation in regard to whether the person who has had the stroke (referred to as the ‘patient’ by all staff) was considered to be a member of the team or not (see Appendix 6 visual image data). Where staff had excluded the patient on their diagram of the team, they expressed surprise when asked by the researcher whether they would consider the patient to be in the team, that they had forgotten to include them:

Interviewer

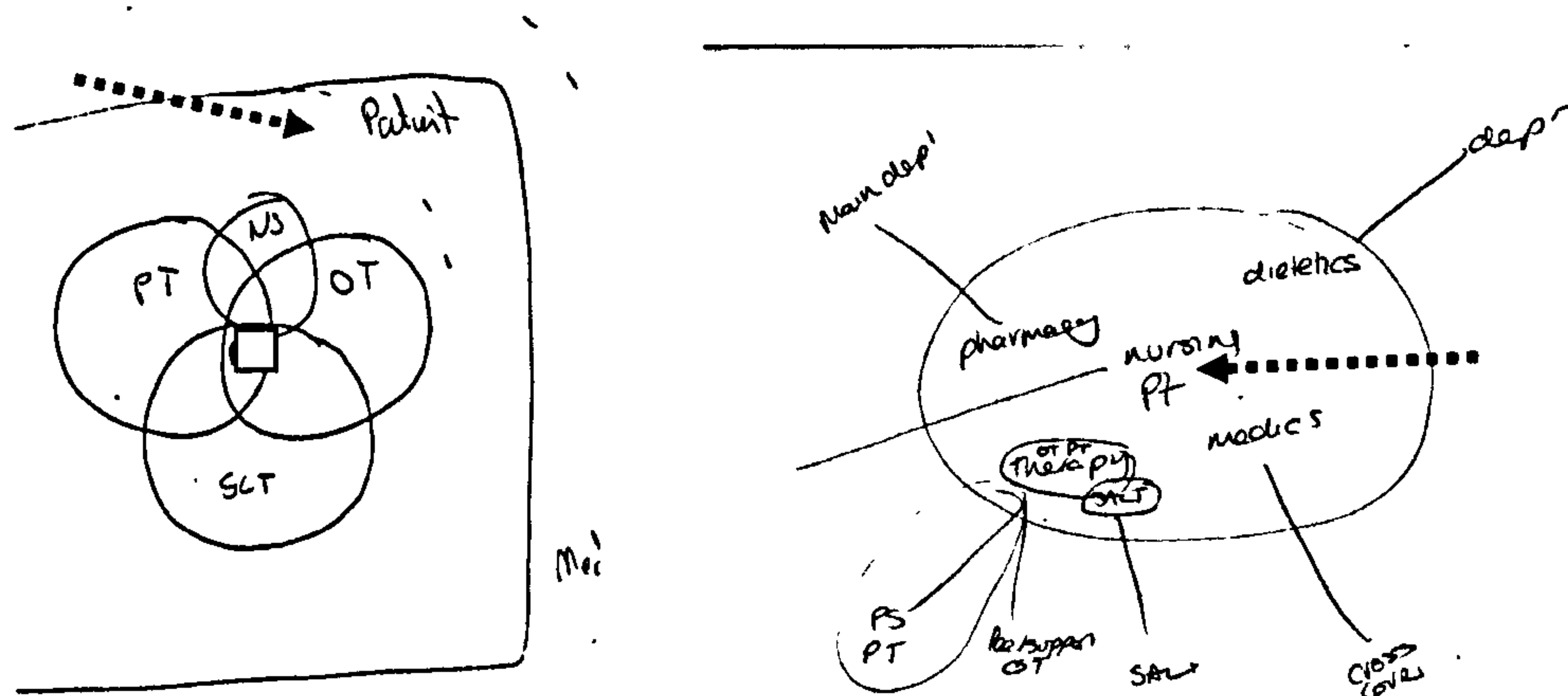
“and patients”

24

“that’s a very good point which I completely missed out....which would be bang in the middle as well....yeah...”.

In some of the diagrams patients were seen as central within the team, whereas in others they occupied more of a peripheral location, see Figure 4.

**Figure 4. Patient location within the team.**



Staff at the sites frequently made reference to the need for “patient-centred care”, for example:

“For me it would be the most patient centred care.” (Document 'individual interview 2' Section 32, Paragraph 64).

“The patient right and the carer....needs to be the main focus in the middle.” (Document 'individual interview 16' Section 20.1, Paragraph 80).

Staff also discussed involvement of the patients and family in decision-making:

“It’s patients being and carers being involved in that and a voice in that...um....cos it isn’t all about what we think and we want as a team of professionals.... it’s about what they want and what do they feel and what do they think..” (Document 'individual interview 16' Section 14.1, Paragraph 56).

“So that that kind of journey to planning for discharge home um although I think the patient is involved in it it’s not something that is discussed with them every single day.” (Document 'individual interview 11' Section 6.1, Paragraph 24).

Some of the data however suggested a feeling of limited involvement of patients and families in decision-making regarding everyday care and discharge. Data relating to the role of the service users in their care was gathered together in nodes of “who decides care” (52 passages across 23 documents), and “who decides discharge” (64 passages across 29 documents), see Appendix 8:39 and

8:40. The data presents evidence that the patient involvement could be limited in meetings, goal setting, and decision-making, for example:

“#day used to be the big meeting, the big morning meeting...nurses and ...generally the majority of the staff used to come...and discuss patients...but patients were never involved in that, they’d come back and say...oh we’re gonna try this or that...they’d try and keep you informed...” (Document 'patient interview h' Section 0, Paragraph 124).

“We don’t get involved in any of it....always the staff not the patients.” (Document 'patient interview d & e' Section 0, Paragraph 166).

“Now these goals are really meant to be discussed with the patient and the carer...and the new draft of the # has sections to tick that that’s what has been done.” (Document 'individual interview 22' Section 0, Paragraph 80).

“There’s team responsibility in the decisions that are made in the inpatient stay..sure...there’s...team...that’s why you’re having the team meetings....so you have....there are often difficult ethical decisions which there often is...or there’s decisions that are discussed within the team and are clearly documented that it’s a team decision that’s reached...but I guess at the end of the day if there’s a dispute ...usually the consultant makes the decision...” (Document 'individual interview 23' Section 0, Paragraph 100).

“Family stressed all the way through that they were relying on professional advice about care and discharge.” (Document 'field notes g' Section 0, Paragraph 2).

“Emphasis seemed to be on patient discharge as soon as possible - need for throughput, asked for decisions on them by the next meeting.” (Document 'field notes o' Section 0, Paragraph 7).

“It was more them suggesting....and me sort of....them explaining and me sort of understanding what they were saying....” (Document 'patient interview l' Section 0, Paragraph 182).

## **ii) Experiences**

Data will be presented here which describes the experience of the person who has had a stroke and the family of this person. Data was gathered into nodes of “patient role” and “patient experience”. “Patient experience” was the second most frequently occurring code in the data, with 194 passages across 39 documents (see Appendix 8 42.). Service users at the sites were generally very positive regarding their care and praised the staff that worked there, for example:

“Oh they are all so nice in here...they’re all so friendly....and they get to know your name...as .....ever so quickly...and that’s sort of comforting...somehow isn’t it...” (Document 'patient interview g' Section 0, Paragraph 245).

“But they’ve all been marvellous...they really have...they’ve been wonderful...they’ve so much patience with you you know...” (Document 'patient interview g' Section 0, Paragraph 28).

“I think it’s a very good system....on the whole....” (Document 'patient interview f' Section 0, Paragraph 260).

Areas, which from the patient’s perspective had been less satisfactory included:

i. Reduced physiotherapy input

“Physios only work days....and OT...and they don’t work weekends.....which I mean I used to find that very disappointing because I used to enjoy physio, and when it got to Friday you knew you weren’t going to get any more while Monday..” (Document 'patient interview h' Section 0, Paragraph 198).

“That is the only trouble with them and myself, you get laid off, and I’m sort of laid off then...to send them...we don’t know how long it is...or anything else...which is wrong....you should have more time to say right you’re on...three paces right, and then you’re off for a while, I’ll be alright if they do that but they don’t...they just leave the...” (Document 'patient interview d & e' Section 0, Paragraph 93).

ii. Negative experiences with staff

“I mean you don’t get on with everybody...there’s some of the staff I didn’t get on with and others I thought were always better than others..” (Document 'patient interview h' Section 0, Paragraph 132).

“I’ve had the odd one so you say to me.. you’re not having it, and one of them got right stroppy about... like I was trying to have my opinion about it. And I was talking to the doctor and nurse about it yesterday, said don’t just tell me I’m not having it, talk to me about it.” (Document 'patient interview a' Section 24.1, Paragraph 97).

“Well he spoke down to us and he didn’t really answer the questions...and that so we didn’t feel very comfortable with him..” (Document 'patient interview l' Section 0, Paragraph 48).

iii) Benefits to service users

During the individual interviews staff were asked what they perceived that the benefits of joint working might be. Some staff (as described earlier in the team process section) highlighted the benefits for staff of working together. This section will present data relating to perceptions regarding the benefits of joint working for patients (see Appendix 8:41 for complete data listing).

Staff referred to benefits in terms of earlier or more speedily provided intervention leading to a better outcome:

“It’s about reducing disability, earlier access, maximising that ability, and yet early discharge into an environment that’s conducive and more appropriate than a unit environment..” (Document 'individual interview 16' Section 16.1, Paragraph 64).

“So interprofessional working if it’s patient centred with carer involvement should make .....it should assist in speedier recovery .....from a term of people that by all working together it’s there....it’s early on, we all know that the research shows that the earlier the access to rehabilitation the earlier access and interprofessional working maximises the potential reduces the disability, so these are all the things I think interprofessional working does....” (Document 'individual interview 16' Section 14.1, Paragraph 56).

“It speeds the process up, also so, so because like I said cos there is always somebody based on this unit that you can seek advice from, so you are not having to say, oh you’ve got to wait, you know you are queueing referrals.” (Document 'individual interview 4' Section 6.1, Paragraph 24).

“If there is a team based approach the client is able to move on and get referrals on.” (Document 'individual interview 13' Section 28, Paragraph 110).

They also referred to more cohesive goal planning and decision-making:

“The benefits is that you have got a plan of care....that... basically has been assessed by a number of professionals with the knowledge of being able to treat that patient from a higher level...no one person has made that decision....and that’s got to be better than one person making a decision about one persons care.” (Document 'individual interview 16' Section 14.1, Paragraph).

“Everybody is coming from the same angle ...if it’s a good team that works together well and we discuss things and we’ve got goals...whether it’s just physio or goals or whatever...and the patient is involved...everybody knows what we’re aiming for...everybody works together...to get that done and then the end result is achieved better...if it works well....” (Document 'individual interview 25' Section 0, Paragraph 128).

Some staff referred to more general benefits promoted by joint working akin to the creation of a positive atmosphere:

“Yeah because they can build their confidence up... you know if it’s like oh I know.. oh I feel comfy with her, but sometimes it’s hard enough coming into hospital, it’s hard enough having a stroke, so if you can like build that confidence up in them you know, and if they can see everybody working together it’s going to make them feel happier, and if they are happier it can help with their recovery...” (Document 'individual interview 9' Section 20.1, Paragraph 80).

“There’s much more of a sense of pulling together I think that’s got to be beneficial for the patient....” (Document 'individual interview 29' Section 0, Paragraph 112).

There is also some reference to more intensively provided intervention:

“You all work together you have all got that one main goal of maximising independence, so it’s like if everybody is all in the same unit then that independence can be maximised more quickly, and it’s like for patients here they get therapy every day, so then they’re going to be discharged home more quickly, because they are having their therapy every day, whereas like, I can only speak from like acute wards, but they don’t get therapy every day.” (Document 'individual interview 4' Section 23.1, Paragraph 92).

#### **iv) Influence of the care group**

During the data collection the influence of the particular patient group that the study sites were providing care for, namely stroke care, was described as of significance by participants. Some staff highlighted that joint working practice with stroke patients was different to joint working practice with other groups of patients. These differences were described in terms of the uniqueness of stroke care, and the need for stroke care to be rehabilitative. The two nodes that

gathered together this material were labelled “stroke client group” (see Appendix 8:47), and “medical versus rehab model” (see Appendix 8:44).

**a) Uniqueness of stroke care**

The data contains 42 passages across 23 documents referring to working practices being particular to stroke services, for example:

“I think in terms of it’s an inpatient setting...and that it’s a longer length of stay than perhaps an acute medical ward...then perhaps....yes...you have more involvement with the rest of the team...than you might do.” (Document 'individual interview 26' Section 0, Paragraph 20).

“But it’s surprising different ways up here, cos they are stroke patients.” (Document 'individual interview 9' Section 24.1, Paragraph 96).

“I think it’s cos it’s a specialised area...so clinically you know it’s over the years you learn your experience but it’s also...one of the skills you learn is working with other people...is the depth of working with the patient and the relative...you can get I don’t ...some people it’s hard cos it’s too much in depth...you can see...people think that they can come in and just work at a very superficial level but we can’t really do that with our patients.” (Document 'individual interview 22' Section 0, Paragraph 104).

“I think probably the fact that every patient tends to need all the different therapies....” (Document 'individual interview 29' Section 0, Paragraph 124).

“I think neurology is a good area to kind of start it in cos I think because the theories are the same for the different professions.....you know the evidence backing up the recovery in stroke....it’s similar whatever profession you come from.....so you’ve got the same base knowledge it’s just how you apply it...” (Document 'individual interview 34' Section 0, Paragraph 116).

**b) Rehabilitative care**

The final area of data to be presented, concerns material relating to the nature of stroke care as being rehabilitation as opposed to medical intervention, with 52 passages coded across 21 documents, for example:

“I think it’s because it’s rehab orientated that we get more recognition from the medical staff....on a rehab ward than we would do on an acute ward...uh...” (Document 'individual interview 22' Section 0, Paragraph 122).

“Rehab’s totally different.. and you have to encourage them to do as much and that I’ve found very difficulty cos it’s very difficult to sit and watch somebody struggle and get frustrated but at the end of the day... that’s what we’re here for.” (Document 'individual interview 8' Section 26.1, Paragraph 104).

“Sometimes in a medical model their way of working is the one to go with... however in a team like this when it’s rehabilitation....the medical model isn’t the right model to take.” Document 'individual interview 10' Section 54.1, Paragraph 219, 302 characters.

This completes a descriptive summary of the data, and has presented the elements of practice that have been identified by these three case studies. It has described twenty-six elements of joint working practice in stroke care within the six domains of the organisation, team process, the individual, communication, professionalism and the service user. This descriptive data outlining elements of joint working practice will now be further explored in the following discussion and interpretation section.



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