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Teamworking in stroke

Once a week is not enough: evaluating current measures of teamworking in stroke.

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Abstract

Rationale, aims and objectives

Stroke care has been at the forefront of the drive to deliver healthcare by teamworking in the UK. Teamworking is the subject of ongoing audit of stroke provision with measures such as a weekly team meeting being used to evaluate services. A qualitative study was recently undertaken to explore these evaluations and to gain further understanding of the processes underlying teamworking practice.

Methods

Three case study sites across the stroke care pathway were investigated using data collection methods of fieldwork observation, interviews and visual imagery. The data was coded and analysed in an inductive process in parallel to the data gathering.

Results

It was found that teamworking practice was affected by organisational conditions such as location of staff, time constraints, management structures, and team contact. Other important aspects of teamworking related to the formation of sub-teams, decision-making processes, leadership, identification of goals, and training in teamworking.

Conclusions

It is suggested that additional measures of team functioning are required. This paper highlights the importance of the organisational background with the need to consider team size, accountability, and changing group membership. It discusses the decision-making systems and the need to more fully consider the role and purpose of team meetings.

Introduction

The clinical area of stroke has been at the forefront of changed service delivery within UK healthcare over the last years. Government policy documents such as The NHS Plan: A Plan for Investment, A Plan for Reform¹, The NHS Workforce Strategy², and The NHS Improvement Plan: putting people at the heart of public services³ have been driving these changes to working practice, with potential for the biggest changes to healthcare since the National Health Service was formed in 1948. Throughout these published policy documents, are references to the need for service delivery to be enhanced by staff working together in multi-disciplinary teams.

The National Sentinel Stroke Audits^{4 5 6 7} have documented this changing working practice, with increasing organisation of care into specialist units, and with teams of different professionals working together. The National Clinical Guidelines for Stroke⁸ emphasise that effective 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 supports this move towards stroke care being provided in specialist units with reported benefits including reduced mortality, reduced disability, reduced recurrence, faster recovery and less distress⁹. Studies^{10 11} have highlighted teamworking as being an important factor in improved outcomes reported.

However, although the benefit of changing care from general wards to specialist stroke units is well documented, and government policy is requiring that stroke unit care must be available in all regions¹², it remains unclear exactly which aspects of stroke unit care lead to which improved outcomes, with research evidence only able to

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speculate on how stroke unit care could reduce disability after stroke⁹, and with little consensus on the characteristics of effective rehabilitation teams¹³. Changing working practice has included not only hospital services and the move towards team-based care in stroke units, but also community services which are similarly being required by government legislation to work in teams^{2 3}. The National Sentinel Stroke Audit⁴ notes that while there is evidence to support earlier discharge from acute units in terms of clinical benefit and resources, that there has been a failure to provide specialist community stroke teams. Surveys of patient experiences of stroke care also suggest that community stroke team care may be less satisfactory¹⁴.

If this move towards teamworking is to be evaluated however, it is crucial that there is clarity in description of the type of practice under scrutiny. Currently, the effectiveness of healthcare teams has been poorly researched¹⁵, with a tendency for rhetoric¹⁶, but for teamworking in practice to be “hard to foster, difficult to identify, elusive to monitor and frequently taken for granted”¹⁷. In stroke care the measures of teamworking used for national audit in the UK⁵ are: that there is multidisciplinary record keeping, that the team should consist of a range of practitioners, and that a multidisciplinary meeting is held at least once each week.

A review of the literature however, indicates that teamworking practice may be considerably more complex than these measures would suggest^{18 19}. This study therefore was designed to examine the elements of teamworking practice with stroke patients in depth, to gain a better understanding of the form of working that the term

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describes. It aimed to uncover factors that may be linked to successful team functioning and therefore potentially to patient outcomes.

Methods

Design

The study adopted a qualitative approach, using naturally occurring data in a working environment²⁰ to gain an understanding of complexity, context and detail²¹. It used a case study research strategy²², investigating three study sites across the stroke care pathway, which comprised the contexts of acute hospital ward-based care, specialist stroke unit care, and community care. The case study sites were selected by purposive sampling²³ within a single healthcare region in England. Ethical approval as a multi-site investigation was granted, and research governance approval was obtained from each service provider.

Data collection

Within each of the case studies a mixed method approach was employed to generate the data with use of fieldwork observation²⁴, semi-structured interviews²⁵, and visual image data, which was in the form of a drawing of the team²⁶. A non-participant observer role²⁷ was adopted during the fieldwork. Field notes²⁸ were used to record observations, and were completed either during or immediately following the periods on site. The interviews were completed alongside the fieldwork observations, and followed a topic guide that was developed from reviewing the literature on teamworking. The semi-structured nature of the method meant that interviews were also used to explore issues that were raised or to further explore observations made,

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and thus also served a function akin to respondent validation²⁰. Whereas all staff on site were participants in the observation by virtue of them being present, staff for interview were sampled on the basis of involvement with three identified patients at each site, and by maximum variety sampling to achieve a spread of age and levels of experience. The three patients that formed the focus for information gathering were selected on the basis of having a range of severity, and type of impairment, as this had potential to impact on working practice.

Data analysis

Data from the study was in the form of predominantly text, with some visual image data. The process of data analysis began with a process of coding (or indexing), enabling elements of text associated with the same element or idea to be linked together²⁹. The transcripts from field notes, and the staff interviews were read on a line-by-line basis. Sections of text were coded, with management of the data supported by the NVivo software programme³⁰. The coding was initially based on an a priori framework³¹, which evolved from a pilot study with non-NHS participants and from a literature review searching teamworking in healthcare and other disciplines such as business and management. Coding was carried out in parallel to the data gathering, in an iterative process of data gathering, examination, gathering of new data and re-examining previous data²⁰.

Results

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The observation periods at each site were spread across a working day and a working week when more than one profession was present, in order to gain a representative sample of practice. In total 120 hours were spent on the sites, with 37 staff interviews completed. Table 1 presents a summary of the data gathered from the three sites. Table 2 presents a summary of the staff interviewed.

Table 1. Summary of the data

	1	2	3
Observation hours (field notes).	45	34	42
Meetings attended (field notes).	3	4	3
Staff interviews (interview transcripts)	16	13	8
Diagrams completed during staff interview	7	3	4

Table 2. Staff interviews

Nursing	10
Physiotherapy	6
Occupational therapy	7
Speech and language therapy	4
Other professions	4
Non-qualified staff (assistants)	6

A number of important elements of teamworking practice became apparent from examination of the data.

Organisational conditions

A count of the number of passages within each code indicates that the organisational background featured as the most significant element within the data, with “organisational conditions” having the most passages coded to it.

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

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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 teamworking:

“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).

“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).

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:

“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).

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

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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:

“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 teams:

“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.” (Document 'individual interview 10' Section 29.1, Paragraph 116).

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).

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 teams and other locations:

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

Location

The working environment and location of staff varied in the teams 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 team 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 working practice, for example:

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“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).

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 team member 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 team, 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).

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

Team contact

The staffing groups that were considered to form the team varied significantly and could have up to 50 members. Ascertaining staff who could be considered to be part

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of the team was challenging, 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 setting. These professions were accessed for advice, specialist opinions, further testing/investigations, and drug supply.

Contact frequency was linked by some staff to the working location, described earlier in relation to the organisation aspects:

“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).

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 OTs looking specifically at the washing.” (Document 'individual interview 24' Section 0, Paragraph 54).

Links between the therapy professions, and the nursing and medical professions at the hospital sites 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).

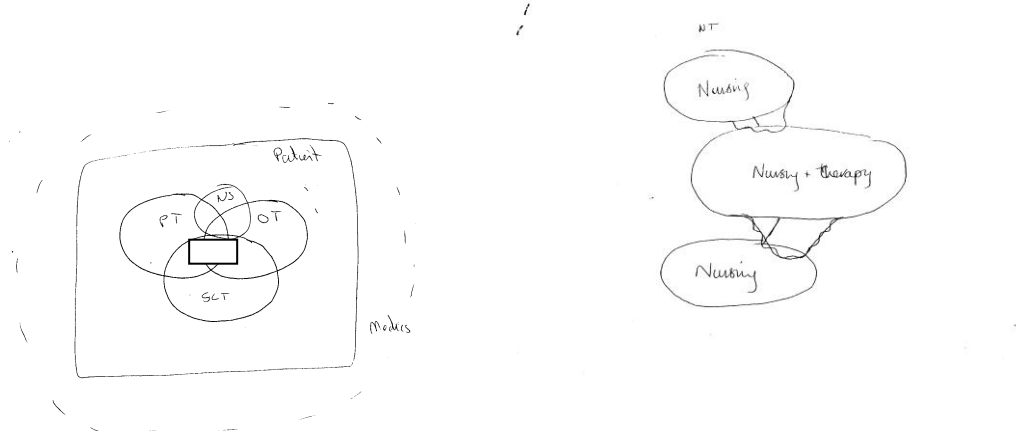
Teams within a team

In the visual image data, 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 1. This representation of the

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teams as professional groupings linked to other professional groupings became increasingly apparent as the data gathering and analysis progressed, and was gathered under a code termed “teams within a team”.

Figure 1. Teams within a team



The data presented above 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.” (Document 'individual interview 24' Section 0, Paragraph 122).

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

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, 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).

Decision-making

Some staff described the benefits of teamworking to be associated with team decision-making. They highlighted the individual professional responsibility of traditional working patterns, and reduction of this feeling of individual responsibility in teamworking because of team decision-making, which they saw as of benefit to both themselves and patient care, 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).

Individual team members identified the weekly multi disciplinary team meeting (MDT) as the main forum for decision-making at two of the sites:

“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).

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 medical staff:

“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).

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At the third study site, the team meeting had a different form from the other two with a more information sharing and training element, rather than decisions regarding patients under the team'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)

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 between professions regarding ongoing treatment.

Leadership

An element of teamworking that can be linked to decision-making is leadership of the team. The sites studied differed in their leadership models, with one having an identified leader who was based at the team site, one had no identified team leadership but had leaders operating amongst subgroups based on professional seniority, and another site had a leader with managerial function but no caseload within the team. At two of the sites staff perception was that leadership functions

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were housed within the senior staff, even though one of these sites did have an identified team leader:

“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).

At the other 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)

Goal/purpose

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, for example:

“Generally the team goal is what the plan for discharge will be.” (Document 'individual interview 26' Section 0, Paragraph 72).

“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).

“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).

“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).

“Nurses would talk more about medication and continence and things....and physios would talk more about mobility...and transfers, and OTs would talk

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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).

Training in teamworking

This variation between types of goals described, and reported difficulty in formulating team goals could be associated with a need for training in teamworking practice.

There was great variability in training reportedly received. The majority of staff reported no formal training in teamworking practice. Some staff reported that they had received input when undergoing their initial professional training:

“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).

Discussion

The data suggests that the evaluations of joint working currently used in stroke audit, such as weekly team meetings may not sufficiently describe teamworking practice.

The importance of organisational elements, over which the team has little or no control has been highlighted by other authors³², and this study supports the need to consider organisational factors in the measurement of team functioning. It is contended that the current climate seems to focus on addressing practice within teams,

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such as meetings and record keeping, while appearing to put less emphasis on addressing organisational conditions. In this study, contact amongst team members was affected by organisational factors of: different working hours amongst staff; lack of consistency of team membership caused by re-deployment of staff; and organisational change; factors, which it is argued, adversely impacted on team formation and functioning. One of the key aspects that has been identified as ensuring successful team functioning is “mutual performance monitoring”¹⁸. However, a significant feature of the teams studied was the complex managerial structure, with performance appraisal either within the individual professions forming part of the team, or via same-profession staff outside of the team, with little team accountability for performance.

The sites examined contained up to fifty individuals who were considered to be “the team”, a number that the teamworking literature would consider too large for the necessary social functions to operate³³. It is possible that the number of individuals at the two largest sites contributed to the formation of sub-teams that the data describes as “teams within a team”, therefore there is a need to fully consider team size as a factor in effective team practice.

The literature³⁴ emphasises the importance of team skills training in successful team functioning, however there was little evidence in the data that teamworking practice had been fostered by staff receiving training in how to work together. Some staff recollected receiving training during their initial qualifying course, but there were no

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reported examples of training that staff considered beneficial to their working practice.

The identification of goals seemed a challenging area for the teams, with different perceptions of goals amongst individual staff. As a key indicator of successful team functioning^{18 35}, it is suggested that the lack of a clear goal/purpose may have been another contributing factor in sub groups becoming established, with profession-specific, or allied health groups working towards the same goal, but differing goals across whole sites. The data thus suggests that the identification of shared goals remains a key challenge in healthcare teams.

A key concern of staff regarding teamworking was in regard to the additional time that working in this way required. It is possible that this perception of increased time required could link to the changing group membership impacting on task efficiency³⁶. Time concerns were frequently mentioned in regard to the formalised contacts at multi-disciplinary meetings at two of the study sites. The data suggests that at two of the sites staff perceived that the meeting was the central focus point for discussion and decision-making. At the third site, the team meeting served a different purpose, with some discussion of patients, but more predominantly a general information-exchange and training function. Thus, although all three sites were achieving the requirement for a weekly meeting, and therefore achieving this measure of successful functioning in stroke care, the content and purpose of these meetings differed considerably. Also, at two of the sites, rather than the team meeting being the decision-making forum, the informal systems seemed to be the more powerful for exchanging information and

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making decisions amongst team members. Here, the team meeting seemed to serve the function of discharge ratification requiring the authorisation of medical staff, with decisions already having been made amongst sub-groups, and with organisational conditions driving the need for decisions to be made. Thus, it is argued that having a weekly team meeting, as one of the current main measures of joint working in stroke care, does not fully capture the reality of teamworking.

Qualitative studies such as this are helpful methods for developing greater understanding of complex phenomenon, such as working practice and organisational functioning. The data generation methods of fieldwork observation and interviews have been successful in gaining insight into staff viewpoints and have provided the opportunity to make cross-comparisons between data types. The visual image data has also proved to be a significant supplement to strengthen the findings, and the use of team diagram drawings is recommended to other researchers as a helpful strategy in gaining an understanding of team membership and relationships.

Whilst considering that the findings of this study are robust, it is recognised that the researcher as the primary tool in data gathering and analysis cannot be seen as viewing the data through a completely “neutral observer” lens, and that individual interpretations of the data are inevitable. This study has investigated a small number of sites, providing care to a single patient care group, in one region of the UK and in common with most qualitative studies makes no claim to generalisability. Other similar studies investigating the complex phenomena of healthcare working practice are needed to discern if the factors impacting on practice identified are transferable to other client groups and other contexts.

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This investigation proposes that the factors of location of staff, frequency of contact, team size, management structure, defined team membership and shared goal planning are key determinants of teamworking practice, and need to be evaluated in any assessment of team functioning. It is argued that there is a need to see beyond the current measures, to develop our understanding of the components of teamworking if it is to be fully evaluated.

¹ Department of Health. *The NHS Plan: a Plan for Investment a Plan for Reform*. London: DOH, 2000.

² Department of Health. *The NHS Workforce Strategy*. London: DOH, 2000.

³ Department of Health. *The NHS Improvement Plan*. London: DOH, 2000.

⁴ Royal College of Physicians. *National Sentinel Stroke Audit, Phase 1 Organisational Audit 20006*. London: Royal College of Physicians, 2006.

⁵ Royal College of Physicians. *National Sentinel Stroke Audit*. London: Royal College of Physicians, 2004.

⁶ Royal College of Physicians. *National Sentinel Stroke Audit*. London: Royal College of Physicians, 2002.

⁷ Royal College of Physicians. *National Sentinel Stroke Audit.*, London: Royal College of Physicians, 2000.

⁸ Royal College of Physicians. *National Clinical Guidelines for Stroke*. London: Royal College of Physicians, 2004.

⁹ Royal College of Physicians. *A Multidisciplinary Stroke Audit. Second Edition*. London: Royal College of Physicians, 2002.

¹⁰ Commission for Healthcare Audit and Inspection. *Caring for people after they have had a stroke. A follow up study*. London: Commission of Healthcare Audit & Inspection, 2006.

¹¹ Sulch, D., Perez, I., Melbourn, A. Kalra, L. Randomised controlled trial of integrated (managed) care pathway for stroke rehabilitation. *Stroke* 2000, 31, 1929-1934.

¹² Department of Health. *Reducing Brain Damage: Faster Access to Better Stroke Care*. London: National Audit Office, 2005.

- ¹³ Smits, S., Falconer, J., Herrin, J., Bowen, S., & Strasser, D. Patient-focussed rehabilitation team cohesiveness in veterans administration hospitals. *Archives of Physical and Medical Rehabilitation* 2003, 84, 1332-1338.
- ¹⁴ Commission for Healthcare Audit and Inspection. *Caring for people after they have had a stroke*. London: Commission of Healthcare Audit & Inspection, 2004.
- ¹⁵ McCallin, A. Interdisciplinary practice - a matter of teamwork: an integrated literature review. *Journal of Clinical Nursing* 2001: 10 (4), 419-428.
- ¹⁶ Loxley, A. *Collaboration in Health and Welfare*. London: Jessica Kingsley, 1997.
- ¹⁷ Enderby, P. Teamworking in community rehabilitation. *Journal of Clinical Nursing* 2002, 11, 409-411.
- ¹⁸ Salas, E., Sims, D. & Burke, C. Is there a "big five" in teamwork. *Small Group Research* 2005: 36, 5, 555-599.
- ¹⁹ Poulton, B. & West, M. Defining and Measuring Effectiveness for Primary Health Care Teams. In Poulton B. & West M. (eds.) *Promoting Teamwork in Primary Care*, London: Arnold, 1997.
- ²⁰ Silverman, D. *Interpreting Qualitative Data*, London: Sage, 2001.
- ²¹ Mason, J. *Qualitative Researching*, London, Sage, 1996.
- ²² Yin, R. *Case Study Research. Design and Methods. Second Edition*, London, Sage, 1994.
- ²³ Pope, C., and Mays, N. Qualitative Research in Health Care. In Pope, C., and Mays, N. (ed.) *Qualitative Research in Health Care*. London: BMJ Books, 2000.
- ²⁴ Bechofer, F., and Patterson, L. *Principles of Research Design in the Social Sciences*. London: Routledge, 2000.
- ²⁵ Berg, B. *Qualitative Research Methods for the Social Sciences. Third Edition*. Needham Heights MA: Allyn and Bacon, 1998.

²⁶ Isard, J., Holland, S., Montgomery Robinson, K., Davis, M., Fordham, J. *Improving Teamwork*, London, Distance Learning Centre: South Bank Polytechnic, 1987.

²⁷ Rossman, G. & Rallis, S. *Learning in the Field*, Thousands Oaks CA: Sage, 2003.

²⁸ Streubert, H., Carpenter, D. *Qualitative Research in Nursing: Advancing the Humanistic Imperative. Second Edition*, Philadelphia: Lippincott, 1999.

²⁹ Morse, J., Richards, L. *Readme First for a User's Guide to Qualitative Methods*, Thousand Oaks CA: Sage, 2002.

³⁰ Gibbs, G. *Qualitative Data Analysis: explorations with NVivo*, Buckingham: Open University Press, 2002.

³¹ Miles, M., and Huberman, A. *Qualitative Data Analysis (Second Edition)*, London: Sage, 1994.

³² Bateman, H., Bailey, P., and McLellan, H. Of rocks and safe channels: learning to navigate as an interprofessional team. *Journal Of Interprofessional Care*, 2003; 17, 141-150.

³³ Edward, S. Working in the Wider Team. In Pearson, P., and Spencer, J. (eds) *Promoting Teamwork in Primary Care*. London: Arnold, 1997

³⁴ Sparrow, J., & Heel, J. Fostering team learning development. *Reflective Practice* 2006; 7, 2, 151-162.

³⁵ Hall, P. Interprofessional teamwork: professional cultures as barriers. *Journal Of Interprofessional Care*, 2005; May, Supplement, 188-196.

³⁶ Prichard, J., Stratford, R., & Bizo, L. Team-skills training enhances collaborative learning. *Learning and Instruction* 2006; 16, 256-265.