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Interprofessional teamwork across stroke care pathways: outcomes and patient and carer experience

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This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers

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Key Messages

- Interprofessional team working is largely invisible to patients who have had a stroke and their family carers. It is an important determinant of the care and service they receive but not necessarily noticed by them.
- Patients and carers value communication with team members. When this meets their needs for information and explanation they are reassured, feel safe and have confidence in the team.
- Large interprofessional teams restrict the involvement and contribution of all team members. This often results in subgroups that are likely to reinforce uniprofessional boundaries.
- Unambiguous leadership is highly predictive of overall team performance. There is more conflict and ambiguity over leadership in larger teams.
- Uniprofessional performance targets in stroke care are a disincentive to collaborative working within the interprofessional team.
- There is a significant, positive association between team performance and work related quality of life. Initiatives to develop and strengthen team working are likely to improve staff morale and job satisfaction.
- The quality of relationships between interprofessional team members, facilitated through face-to-face contact at interprofessional meetings, shared workspace and opportunities to socialise are important determinants of team working.
- Nursing staff appear to be least involved in the interprofessional team despite having the most contact with patients and carers.

- NHS Organisations need to:

    - Ensure that the leadership of interprofessional teams in stroke care is explicit to all stakeholders to reduce conflict and ambiguity.
    - Consider how to facilitate the optimum size and stability of stroke teams for interprofessional working that may mean implementation of structures such as multiteam systems and longer staff rotational periods.
    - Recognise the significance for patient outcomes and invest in the opportunities for interprofessional team face to face communication, patient and processes review.
    - Discourage the use of uniprofessional performance targets in stroke care.
    - Recognise and capitalise on the interplay between team performance and staff work related quality of life by investing in interprofessional teamwork and considering the involvement of those currently poorly represented e.g. nursing staff within inpatient settings.

Executive Summary

Background

Healthcare delivery is increasingly complex, requiring the input of a variety of professionals organised in a multiplicity of teams. Whilst there is an extensive literature on team working in healthcare this focuses on team processes and staff outcomes and the impact of interprofessional team working on patient experiences and outcomes remains poorly understood. Furthermore, there is also a lack of research that explores the effectiveness and impact of team working on patients as they transfer between care settings.

This study examines the impact of interprofessional team working on patient outcomes and patient and carer experience across the stroke care pathway. Stroke pathways were selected to investigate this because there is strong evidence that patients who receive care from interprofessional teams in stroke units and community teams are more likely to be alive, independent and living at home one year after stroke. There is an implicit assumption that better patient outcomes are a consequence of interprofessional team working, however, the contribution of the team to these favourable outcomes is unclear and there is a need to understand what aspects and characteristics of teams and team working influence outcome and patient and carer experience to enable further development of stroke services.

Aims

The aim of the study was to investigate the impact and effectiveness of teamwork on a range of patient outcomes and experiences of care at different points in the stroke care pathway from hospital admission, through rehabilitation to discharge home or to a care home. In order to achieve these aims, the study set out to:

1. Investigate clinical outcomes of care using data collected for hospital based stroke registers and the statistical associations between team characteristics and functioning and patients' clinical outcomes of care by:

a) Describing how stroke teams and services within the acute hospital and community health and social care are organised and supported.

b) Examining the mechanisms that support team working and the facilitators and barriers to effective teamwork in the care of stroke patients.

c) Conducting multivariate statistical analysis to explore relationships between patient outcomes and team attributes.

d) Exploring staff experience of team working and their understanding of what makes an effective team.

e) Exploring patient and carer experience of care in the context of their understanding of what makes an effective team along the stroke care pathway from hospital admission to 90 days post discharge.

2. Develop hypotheses about which aspects or features of teams and team working are effective in improving patient clinical outcome and experience of care.

Methods

We undertook a mixed methods exploratory study drawing on a realist approach, with a realist synthesis of the literature on interprofessional teamwork providing an analytic framework for use throughout the study. Five stroke teams (two acute, one inpatient rehabilitation and two community teams) working across two stroke care pathways were involved in this study.

At the onset of the study we conducted key informant interviews with 19 senior members of staff and documentary analysis to produce context maps of each of the participating teams and the organisations in which they worked. We collected anonymised patient outcome data from stroke registers held at the two acute units to investigate clinical outcomes of care for stroke patients.

We conducted critical incident interviews with 50 patients and 33 carers to explore their perspectives on teamwork and its impact on their experience of stroke care. Patients and carers were interviewed two or three times along their care pathway: in acute care, inpatient rehabilitation if they went there and in the community, after they had been home for three months.

We invited all members of the participating teams (n=263) to complete two staff questionnaires - one measuring team characteristics and effectiveness (the Aston Team Performance Inventory, ATPI – overall response rate 69%) and one measuring individuals' quality of life at work (the Work-Related Quality of Life Scale, WRQoL – overall response rate 56%). Multiple analysis of variance was conducted to test the effects of various factors (e.g. team, professional group etc) on standardised ATPI scores and the correlation between WRQoL and ATPI scores was measured. The potential for examining the relationship between standardised ATPI scores and patient outcomes was also explored.

We interviewed 56 members of staff from a range of professions and grades across all five teams to explore professional perspectives of teamwork and barriers and facilitators to teamwork.

We observed two to four interprofessional team meetings for each of the interprofessional teams and analysed these data using an ethnographic approach.

Results

The realist synthesis identified 13 'mechanisms' of team working (i.e. processes that underpin team working) and these formed the analytic framework for the study. These mechanisms are:

- Shared sense of purpose
- Pooling of resources
- Collaboration and coordination
- Efficient, open and equitable communication
- Shared responsibility and influence
- Support and value
- Critically reviewing performance and decisions
- Generating and implementing new ideas
- Individual learning
- Leadership
- Tactical communication
- Role blurring
- Team behavioural norms

The five teams operated within diverse organisational structures and facilities. Variations were identified in a number of areas including team size, model of leadership, team organisation, format of multidisciplinary team meeting and patterns of working within and between the teams. These contextual features of how teams were organised had an impact on staff experience of working in an interprofessional team and how patient care was delivered. Major changes were occurring to local stroke services during the course of the study, which involved expansion and restructuring of services with accompanying financial investment and new performance standards for all elements of the stroke care pathway.

Much of the stroke register data collected at both sites did not meet the study requirements, as there was significant missing data within both registers. The available patient outcome data revealed that the age of the patient and the severity of their stroke had a statistically significant effect on mortality at three months and recovery from stroke after one year. However, despite differences in service structure no differences in patient outcome were found between the two stroke care pathways, therefore

relationships between team working and clinical outcomes could not be explored.

Patient and carer perspectives

Patients and carers talked a great deal about their experiences of care, however, the majority found it difficult to talk in detail about interprofessional teamwork. For some it was not their priority, whilst others could not remember or had not taken notice of what happened around them. Others only saw one professional group at a time. When they did talk about teamwork, 'open communication' and 'collaboration and coordination' were the most frequently discussed mechanisms. A tentative new mechanism of 'advocacy' was identified in the community setting. Patients and carers rarely made explicit links between the processes of teamwork they described and their experiences of stroke care. The main exception to this was the 'open communication' mechanism where some reported feeling reassured, confident in the team, and safe when they perceived communication to be good, and stressed, anxious and annoyed when it was not.

Staff perspectives

In contrast staff talked extensively about their experience of working in an interprofessional team suggesting that it was more important and visible to them. The mechanisms most frequently discussed by staff were 'open communication', 'collaboration and coordination' and 'pooling of resources' which were most commonly linked to perceived benefits to patient outcomes; and 'support and value' which was most commonly linked to individual staff or team outcomes. However, our findings show that some aspects worked better for some teams and team members than others. Members of the community teams assessed their team's performance more highly. Medical staff thought team performance was significantly better that other professional groups. In contrast, nursing and unqualified staff, viewed by some as having lower status in the team hierarchy, felt powerless and taken for granted and had less positive experiences of team working than their interprofessional colleagues. The quality of relationships between interprofessional team members, facilitated through face-to-face contact at interprofessional meetings, shared workspace and opportunities to socialise were important determinants of team working.

The interprofessional teams were large, particularly in inpatient units, and while this was thought to increase the range of expertise and resources of the team there are greater co-ordination and communication challenges. Our findings show that team size influences staff perception of team working where team performance was assessed to be better in the smaller community teams. Furthermore, size and structure of the interprofessional team restricts the involvement and contribution of all team members and opportunities for joint working between professional groups. Co-location,

identified as an important context that triggered several mechanisms of teamwork, was less likely to occur in larger teams. As a result, there were a number of smaller teams or subgroups within the interprofessional team, frequently reinforcing uniprofessional teams, but also groups of staff who had worked together on the unit for longer periods of time. This potentially reduced clarity of leadership within the interprofessional team, which was demonstrated to reduce team performance.

Leadership was complex within these interprofessional teams and staff in acute and rehabilitation settings found it difficult to identify a clear leader. Staff talked more about the support and guidance provided by their uniprofessional team leader. Being managed by someone outside their professional background could be difficult at times and therefore participants felt it was important that there was a clear structure of uniprofessional managers and interprofessional leaders available to them. Clear leadership emerged as a highly significant predictor of how team members rated their team, suggesting that it is an important mechanism that supports team working. Furthermore, staff perception of the way their team worked was correlated with their quality of life at work.

Workload was frequently mentioned as a barrier to teamwork and more specifically uniprofessional activity/patient contact targets inhibited interprofessional working and could lead to conflicting priorities amongst professional groups.

Implications for practice

To improve interprofessional working it is recommended that:

- Team structures are redesigned to reflect developments in service delivery. Where teams are large communication and co-ordination are challenging and the involvement and contribution of all members is restricted. Structures that account for team complexity e.g. multiteam systems may be more appropriate.
- Clear structures of leadership of interprofessional teams should be explicit and strengthened to reduce conflict and ambiguity. A full time leader with no additional clinical responsibility may be a good model to facilitate this.
- Team structures should take into account overall leadership of the interprofessional team, alignment of uniprofessional teams within the wider interprofessional team, leadership of professional issues for individual disciplines and leadership for specific team functions.
- Opportunities for co-location and regular face-to-face contact e.g. regular interprofessional team meetings for all members of the team should be maximised to facilitate mechanisms of teamwork and reinforce consistency in team processes.

- Teams should take time out to reflect on patient cases and on how they work as a team. Senior managers should ensure teams have appropriate time to reflect together.
- Collaboration between professionals in joint sessions with patients is facilitated particularly between therapists and nurses who can implement therapy plans throughout the day and at evenings and weekends.

To improve patient and carer experience of care delivered by an interprofessional team it is recommended that:

- Time for direct interaction with patients and carers by individual professionals and on behalf of the team are promoted and developed.
- Methods of communication with patient and carers and co-ordination of care are developed, strengthened and given priority.
- Team structures are developed that support the way in which team members allocated to each patient, i.e. the 'people around my bed', work together.

To enhance staff experience of working in an interprofessional team it is recommended that:

- Develop and support clear structures of interprofessional team leadership to reduce conflict and ambiguity in leadership.
- Team size should not be too large as this can result in staff feeling too intimidated to contribute and team members not knowing each other.
- Structures and processes that strengthen the alignment of uniprofessional teams should be considered.
- Professions and individuals be valued equally as this raises morale and confidence, reduces stress and feeling of personal burden and enables all staff to contribute to team discussions.
- Nursing staff appear to be least involved in the interprofessional team despite having the most contact with patients and carers. The need remains for nursing staff to develop a distinct and recognised role in stroke rehabilitation.
- There is an association between team performance and work related quality of life, therefore initiatives to develop and strengthen team working are likely to improve staff morale and job satisfaction.

Implications for policy

Interprofessional teamwork is a fundamental element of the delivery of many healthcare services and therefore the findings of this study have widespread relevance. Specific recommendations are:

- Activity targets and patient contact targets for stroke care should be interprofessional not uniprofessional to facilitate the interprofessional team working together rather than reducing the incentives to work together.
- Consideration be given to the optimal number of rotational posts that can be supported within the stroke cares services and the duration of these rotation posts to support team stability while contributing to professional development.
- Although the patient outcome data in this study is weak no significant differences in patient outcomes between the two pathways were identified. This tentatively suggests that stroke services can be responsive to local circumstances and interprofessional teams can develop and adapt flexibly to address local needs without negatively affecting patient outcomes.

Conclusions

Our study has found that patients and carers do not specifically notice interprofessional team working even though it may be an important determinant of the care they receive. Communication with staff was identified as the aspect of teamwork that had the biggest impact on patient and carer experience.

Team working was much more visible to staff and some aspects of team work had an important impact on the way the interprofessional team worked together and staff work-related quality of life. In particular, clear leadership and conflict over leadership were highly predictive of overall team performance.

Our findings unpack the very complex processes inherent in interprofessional team working. They make a significant contribution to knowledge of the effectiveness of interprofessional teamwork, in particular what works, for whom and in what circumstances and have clear implications for the structure and support of interprofessional teams.