An ethnographic study of knowledge sharing across the boundaries between care processes, services and organisations: the contributions to 'safe' hospital discharge

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Scientific summary

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Patient safety and knowledge sharing

Patient safety remains a health policy priority. The 2013 Francis Report highlights the complex social, cultural and organisational factors that influence the quality and safety of patient care. Despite advances in patient safety theory and research, studies continue to find worryingly routine levels of substandard care and patient harm. Advances in 'systems thinking' as applied to health care have helped service leaders better understand and address the upstream source of risk, but research and practice has tended to focus *within* care settings, such as operating theatres or emergency departments, rather than *between* care settings and processes. This report addresses recent calls for research to examine the wider sociocultural and organisational context of patient safety between care settings and processes. It develops the idea that health-care services might be seen as complex systems involving non-linear and dynamic interactions between heterogeneous actors. In this sense, the sources and threats to safety emerge from systems-level interdependencies and relationships.

The study recognises that the co-ordination of different health-care professionals and organisations operating within a complex system is enhanced where there is shared understanding, common values and aligned ways of working. In other words, system complexity can be mitigated by actors knowing how to integrate their distinct activities to meet common goals. This is premised on knowledge sharing and collaboration within communities or networks of practice. Knowledge sharing is more than the communication of information, relating instead to how meanings, beliefs, values and 'know-how' are shared with and used by others to support collaboration. The research literature highlights a number of key dimensions that shape the potential for knowledge sharing, including:

- *knowledge*, related to differences in epistemology, cognition and sense-making, for example how actors *make sense* of discharge; the types of knowledge that guide practice; and whether or not knowledge represents a competitive resource
- *culture*, related to the shared norms, attitudes and values that guide practices, for example when knowledge *should* be shared and with *whom*; how identities and trust reinforce knowledge hoarding; and the different philosophies of care that guide work organisation
- *organisation*, related to the influence of (inter/intra)organisational structures, processes, regulatory factors and management priorities that shape knowledge sharing, such as sociolegal rules, professional jurisdictions, organisational connections and resource constraints.

This perspective provides a new insight into the source of patient safety not only *within*, but also *between* care settings and processes and helps explain how knowledge sharing might (and might not) mitigate the risks inherent within complex systems.

The problem of hospital discharge

The study takes as its focus the complex patterns of care organisation associated with hospital discharge. National policies suggest that timely, integrated transition from hospital is integral to patient recovery, quality of life, independence and longer-term care. In contrast, inappropriate or poorly planned hospital discharge can introduce new risks to safety and additional resource costs, inhibit recovery and lead to unplanned readmission. Threats to safety in hospital discharge are diverse and relate to the management of medicines, the provision of appropriate health and social care, the fitting and use of home adaptation to support recovery, and the risks of falls, infections or sores. Hospital discharge is interpreted as a 'vulnerable stage' in the care pathway that exemplifies the opportunities for patient safety located

between care settings. Taking hospital discharge as its focus, the study examines how knowledge sharing can contribute to discharge planning and care transition through supporting collaborative working and mitigating system complexity.

The study analyses and compares the discharge of stroke and hip fracture patients. These represent high-demand areas of NHS services and national priorities for service improvement. Although the majority of patients in both services tend to be elderly, they offer an opportunity for comparison in terms of how services might be organised differently, or indeed how resources could be shared across these two areas.

Study aim and objective

This study aims to identify interventions and practices that support knowledge sharing across care settings and thus promote safe hospital discharge by mitigating systems-level complexity.

In line with this aim, the study objectives include:

1. to determine the stakeholders involved in discharge, including their distinct roles, responsibilities and relationships, as elaborated in terms of (a) their specific *knowledge and practice domains*; (b) their prevailing *cultural norms and assumptions*; and (c) *organisational* context
2. to determine the patterns, media and content of knowledge sharing between stakeholders with a particular focus on interventions to facilitate communication, including (a) *multidisciplinary teams*; (b) *guidelines and toolkits*; (c) *co-ordinators*; and (d) *information communication technologies* (*ICTs*)
3. to determine stakeholders' relative perceptions of the threats to 'safe' discharge, with a particular focus on known risks and sources of readmission, including (a) *falls* and (b) *medicines management*, as well as other perceived risks
4. to determine how knowledge sharing represents a latent *threat to patient safety* and source of delayed discharge
5. to explain the patterns of knowledge sharing as threats to patient safety based upon the heuristic categories of *knowledge, cultural and organisational factors*
6. to identify *lessons and interventions* that support knowledge sharing and, in turn, integrated, efficient and safe hospital discharge.

Study design and methods

The research involved an ethnographic study of the patterns of knowledge sharing involved in discharge planning and care transition, including narrative interviews with stakeholders that focused on the relational flows of knowledge between actors and their perceived threats to safe discharge. Ethnographic observations afford exploratory understanding of hospital discharge as a situated social activity involving the flow of knowledge between multiple actors, each with distinct cultures and modes of social organisation. Ethnography facilitates the identification and analysis of the distinct knowledge and practice domains that characterise different groups involved in hospital discharge; how their distinct cultural norms, values and identities have an impact upon their discharge practices; and how wider social and organisational customs frame social practices. Ethnographic observations focused on how discharge was planned, organised and supported as a series of complex interactions between various health and social care agencies. The observations combined the following different activities to build rapport and understanding:

- guided tours and structured familiarisation
- work process observations
- in-depth observations of situational activities, tasks and settings
- shadowing of individuals.

Using these techniques, it is estimated that the research involved over 180 hours of direct observations and many more opportunistic observations, in a variety of health and social care settings.

Using qualitative interviews alongside observations allows for further analysis of the flows of knowledge between actors; interview questions can explore participants' first-hand experiences of being involved in discharge planning, their perceived threats to safety and, importantly, their insight into how, when and with whom knowledge is shared in the processes of hospital discharge. Interview topics included:

- career biographies and backgrounds
- details of roles and responsibilities, with a specific focus on discharge activities
- accounts of the discharge process, including the broad process, planning issues, and working with patients and families
- the role of communication and knowledge sharing in discharge processes
- identification of individuals or groups contacted during discharge activities
- exploratory accounts of knowledge-sharing relationships with identified individuals
- perceptions and experiences of risk and safety
- recommendations and improvements.

The study was designed as two case studies of discharge planning and care transition. The case study approach enabled in-depth and contextual insight *within* cases, but also comparison and theoretical generalisation *between* cases. Research was undertaken within two distinct care systems, each comprising a single acute NHS trust, around which other primary, community, local authority and social care services are arranged. The study analysed discharge planning and care transition in these two systems. Data collection involved 2–3 months of data collection within and around each stroke and hip fracture service (i.e. 5–6 months of research in each hospital) and a further 2–3 months of research in the local community health and social care sector, including patient tracking (i.e. approximately 8 months of research with each health-care system).

Findings

The study shows how hospital discharge does not occur as a single or isolated event, but rather through a complex series of interdependent knowledge flows, decision-making, activities and handovers. Comparison of the research sites shows how a range of common 'situations' or opportunities for knowledge sharing are involved in discharge planning and care transition. Furthermore, it finds that the organisation of hospital discharge is influenced by the range and selection of available 'discharge destinations'. Together, these frame the patterns of activity and knowledge sharing across the patient journey or care pathway, including:

- admission
- ward rounds
- ward-based interactions
- internal hospital transfers
- health-care referrals
- social care referrals
- day of discharge
- early supported discharge care
- homes with reablement care
- nursing or residential care homes
- community hospital care.

These situations present the main opportunities for different stakeholders to interact and share knowledge in the context of discharge planning and care transition. The study finds important variations within and across these situations in terms of (a) the number and range of actors involved in knowledge sharing; (b) the forms of knowledge shared; (c) the methods and media of knowledge sharing; (d) how knowledge is used in relation to discharge; and (e) the wider organisational context. Detailed ethnographic analysis of these situations and the patterns of knowledge sharing highlights seven key factors that shape the patterns of knowledge sharing:

1. the range, frequency and extent of stakeholder involvement in discharge planning and care transition over the care pathway
2. the level of integration between stakeholders across the care pathway
3. the contribution of key actors who share or broker knowledge across organisational and occupational boundaries
4. the format and integration of patient record keeping
5. the availability and use of other materials and ICT resources
6. the influence of service leaders in co-ordinating and prioritising hospital discharge
7. the ethos of discharge within the care pathway, including the relative priority given to discharge.

The study also shows that stakeholders perceive a wide range of potential and actual threats to patient safety associated with hospital discharge. Importantly, these perceptions vary according to the participant's role or position within the discharge process and prevailing cultural assumptions about risk. It was also difficult for participants to distinguish clear causal relationships between actual 'safety events' and latent 'risk factors'. Analysis of participant narratives reveals the following categories or types of perceived discharge risks, each associated with a number of conditioning, latent factors:

- falls
- medicines
- infection
- clinical procedure
- equipment
- timing and scheduling
- communication.

These perceived threats to safe discharge are interpreted and explained using the observational data of discharge planning and care transition in order to understand how patterns of knowledge sharing can bring about or mitigate unsafe discharge. This shows the importance of robust knowledge sharing and integrated working across the patient journey, and further demonstrates the seven dimensions outlined above.

Conclusions

The study supports the view that hospital discharge is a complex and vulnerable stage in the patient's journey. Discharge planning and care transition involves non-linear, dynamic and recursive interactions between a heterogeneous range of health and social care actors. From this perspective, safety is located in the interdependent couplings or interactions between system actors.

The study develops the idea that knowledge sharing, especially between health and social care agencies, can help mitigate system complexity and promote discharge safety by supporting more collaborative or joined-up working. Knowledge sharing is defined as the sharing of 'know-how' – the meanings, beliefs and practices that characterise individual groups – which, when shared and used by others, fosters more co-ordinated or collaborative practices. Knowledge sharing might therefore be interpreted as a source of safety within complex systems, helping to integrate dynamic and tightly coupled interactions. In the case

of hospital discharge, knowledge sharing can help those in health and social care settings, for instance, to better understand their distinct contributions and roles within discharge planning and care transition, and thereby foster joined-up working in terms of ongoing rehabilitation and recovery.

Drawing together the analysis, the study highlights four main areas where knowledge sharing can enhance the safety of discharge planning and care transition:

- extending the use of boundary-spanning and knowledge-brokering roles that operate across organisational and occupational boundaries and facilitate knowledge sharing and integrated working, such as discharge co-ordinators
- increasing functional proximity and colocation of different stakeholders to foster more routine and regular patterns of knowledge sharing and integrated working, including both formal meetings and everyday front-line practices
- fostering a culture of collaboration by establishing shared and mutual priorities for integrated working and knowledge sharing through effective leadership and increased involvement of the patient in decision-making
- introducing organisational structures and procedures that prioritise discharge planning, including the development and use of discharge frameworks that follow the patient from admission to the community; reconfiguring existing meetings to afford more time for discharge planning; and better aligning health and social care working practices.

The findings provide the foundations for subsequent intervention development and empirical testing to appraise their contributions to knowledge sharing, collaboration and enhanced patient discharge. Future research might consider the implementation of interviews to mediate system complexity through fostering enhanced knowledge sharing across occupational and organisational boundaries. Research might also consider in more detail the underlying complexity of both health and social care systems and how opportunities for knowledge sharing might be engendered to promote patient safety in other areas.

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