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QUALITATIVE PAPER

'Weighing up risks': a model of care home staff decision-making about potential resident hospital transfers

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Abstract

Background: care home staff play a crucial role in managing residents' health and responding to deteriorations. When deciding whether to transfer a resident to hospital, a careful consideration of the potential benefits and risks is required. Previous studies have identified factors that influence staff decision-making, yet few have moved beyond description to produce a conceptual model of the decision-making process.
Objectives: to develop a conceptual model to describe care home staff's decision-making when faced with a resident who potentially requires a transfer to the hospital.
Methods: data collection occurred in England between May 2018 and November 2019, consisting of 28 semi-structured interviews with 30 members of care home staff across six care home sites and 113 hours of ethnographic observations, documentary analysis and informal conversations (with staff, residents, visiting families, friends and healthcare professionals) at three of these sites.
Results: a conceptual model of care home staff's decision-making is presented. Except in situations that staff perceived to be urgent enough to require an immediate transfer, resident transfers tended to occur following a series of escalations. Care home staff made complex decisions in which they sought to balance a number of potential benefits and risks to: residents; staff (as decision-makers); social relationships; care home organisations and wider health and social care services.
Conclusions: during transfer decisions, care home staff make complex decisions in which they weigh up several forms of risk. The model presented offers a theoretical basis for interventions to support deteriorating care home residents and the staff responsible for their care.

Keywords: patient transfer, nursing home, decision-making, qualitative, care home, older people

Key Points

- A number of studies have identified factors that influence care home staff decision-making when deciding whether to initiate a transfer to hospital.
- The aim of this study was to move beyond description to develop a conceptual model of care home staff decision-making that occurs in the care home prior to the transfer of a resident.
- With the exception of situations that staff perceived to be urgent enough to require an immediate transfer to hospital, resident transfers tended to occur as a series of escalations.
- Staff made complex decisions in which they sought to balance a number of potential benefits and risks to: residents; staff (as decision-makers); social relationships; care home organisations and wider health and social care services.
- The model outlined in this paper offers a better understanding of the processes and factors that shape decision-making within the care home when residents' health deteriorates.

Introduction

Care home residents often have complex health and social care needs [1], significant frailty and cognitive impairment [2, 3], and the level of disability and medical complexity of care home residents has increased in the last two decades [4]. Although care home residents are a diverse group of individuals [2], they are usually the 'oldest old' in society, with more than half of all residents aged 85 years and above [5]. Illness trajectories in this population can be uncertain and unpredictable: deteriorations may occur suddenly or gradually, as a result of new conditions or exacerbations of known co-morbidities [6].

Care home residents are more likely to be transferred and admitted to hospital in unplanned, emergency situations than older people living in the community [5, 7]. Transfers are often associated with medical crises, yet patterns of secondary care use are variable and influenced by multiple factors, with marked variation in rates of emergency care use for residents from different care homes even when the demographic and health profiles of residents are similar [8–10], with the majority of healthcare use attributable to less than half of all residents [3].

For some care home residents, particularly those who are older and living with frailty and/or cognitive impairment, transfer or admission to hospital is commonly associated with subsequent decline in physical health and psychological well-being [11–14]. As well as being potentially distressing and disorientating, residents experience higher in-patient mortality than community-dwelling older people [15, 16]. Therefore, ensuring that benefits and burdens are carefully considered before transfer is important.

Over the last two decades, there has been a growing interest in identifying and estimating the prevalence of hospital transfers that could be considered 'inappropriate' or 'avoidable' [17–20]. However, this approach has been criticised as over-simplistic: it does not account for the complexity involved in decision-making or the contextual factors that influence transfers [21]; and concerns have been raised that such categorisations frame care home residents as problematic. Indeed, there is no agreed definition of exactly what constitutes an 'inappropriate' admission [22, 23].

In recognition that care home staff play a crucial role in responding to potential deteriorations in residents' health, a growing body of research has explored staff decision-making about resident hospital transfers [21, 24–28]. However, several important gaps remain. The majority of studies have been conducted in Australia, the USA and Canada, with very few conducted in England or other countries of the UK. Existing research primarily focuses on the experiences of registered nurses working in care homes that provide nursing services on site, meaning its relevance to other staff groups, such as those working in care homes that do not provide nursing services, is questionable. This is particularly relevant in the UK context, where the term 'care home' encompasses homes that provide nursing services (often referred to as 'nursing' homes) and those without nursing ('residential' homes). In addition, some care homes in England provide care for both people with and people without nursing needs (referred to as 'dual-registered' homes). Approximately two-thirds of the 15,000 care homes in England do not provide nursing services [29].

Although several authors have described factors influencing staff decision-making, few studies (and none from the UK) have moved beyond description to produce a more detailed conceptual model of decision-making processes. Exceptions include Lopez (2009) who studied the ways care home nurses in the USA decide to initiate palliative or life-prolonging treatment for acutely ill residents; and Sund-Levander and Tingström (2013) who explored nursing assistants' decision-making in residents with suspected infections. Although these studies provide important insights, the importance of the wider social context in shaping decision-making is well recognised and the extent to which the findings are applicable in other settings (such as the UK) is uncertain [30].

In this important area, a better understanding of the complex processes and interactions that precede a transfer is required to inform policy and practice, to develop high-quality, person-centred alternatives to hospital transfer and to strengthen resident-centred decision-making.

The analysis and model development reported here was undertaken as part of a study to develop an in-depth understanding of staff decision-making when deciding whether or not to transfer a resident to a hospital [31]. We have already published interview findings from this research specifically on the role of advance and emergency healthcare plans during in-the-moment decision-making about potential resident transfers [32]. In this current paper we broaden the focus to the decision-making processes that precede a hospital transfer and the complex weighing-up of risks that are undertaken. Drawing on both interview and ethnographic data, we present a conceptual model to describe the decision-making processes that care home staff undertake prior to the transfer of a care home resident.

Methods

Study design

The study was conducted within the philosophical assumptions of critical realism. This approach combines a realist ontological belief with an interpretivist epistemological belief and is well suited to examining complex phenomena [33]. In line with the critical realism paradigm, which suggests that all knowledge is socially constructed and thus created by the researcher and participants [34], interactive research methods were chosen. Data collection occurred in two phases. The first phase comprised face-to-face interviews with care home staff, and the second phase involved detailed ethnographic work.

Data collection

Interviews with care home staff

Face-to-face, semi-structured interviews were conducted between May 2018 and February 2019, in a private area

Table 1. Care home characteristics, $n = 6$

Site	Type of service	Type	Number of beds	CQC rating at the time of data collection	Provider size (number of homes)
1	Nursing	Private for profit	35	Good	Small chain (5)
2[a]	Residential	Charitable not for profit	45	Good	Small chain (5)
3[a]	Residential	Private for profit	15	Good	Independent (1)
4[a]	Dual registered	Private for profit	60	Good	Large chain (120)
5	Nursing	Private for profit	40	Outstanding	Independent (1)
6	Nursing	Private for profit	35	Requires Improvement	Large chain (300)

[a]Took part in both phases of data collection.

of each participant's workplace during their working hours. Care home sites were sampled purposively to reflect factors that were found to influence transfer rates in previous studies. A summary of each home's key characteristics is provided in Table 1.

Individual participants were also sampled purposively to ensure a range of staff voices were heard. With permission from the care home manager, written information was provided to all staff and they were invited to participate by a member of the research team (FHH). All individuals approached agreed to participate. On two occasions, participants asked to be interviewed in pairs. In both instances participants were employed in the same role. In total, 28 interviews were conducted with 30 members of care home staff across six care homes in the East and West Midlands of England. Participants included seven care home managers, three deputy managers, seven registered nurses, seven senior care workers and six care workers. The length of each interview ranged from 18 to 75 minutes (averaging 38 minutes across all participants).

Each interview was audio-recorded and transcribed verbatim. All identifiable data were removed, and each transcript was allocated a transcript number. The interview schedule included questions about personal experiences of being involved in hospital transfers and case vignettes that reflected situations that could occur in care homes. The interview schedule and accompanying vignettes (see supplementary material) were developed based on a review of existing literature and through stakeholder engagement with four care home managers, and were piloted prior to data collection. Data collected during piloting are not included in the final analysis.

Ethnographic work at three care homes

Detailed ethnographic work took place at three care homes from the first phase. Data obtained during the first phase (interviews) were used to define the sampling strategy for these sites. Two characteristics were identified as likely to influence staff experiences of decision-making: (i) whether the home provided nursing services and (ii) the extent to which the staffing structure was hierarchical. We approached three sites which reflected this sampling frame. All agreed to take part. More information about each site is given in Table 2.

Ethnographic data collection involved observations, documentary analysis (e.g. of policies and procedures relevant to hospital transfers) and informal unstructured conversations with care home staff, residents, family carers and visiting healthcare professionals. Observations were focused on staff activity, interactions and documentation that occurred within the care home. This included observations of the ways in which staff: managed residents' health conditions, responded to deteriorations in residents' health; and the work that care home staff undertook to maintain residents' health and to prevent hospital transfers. Observations occurred at different times of the day across all days of the week and were captured through hand-written and audio-recorded fieldnotes. In total, across all three sites, 113 hours of ethnographic fieldwork were completed during 26 visits, which occurred over an eight-month period from April 2019 to November 2019. The length of each visit ranged from two to ten hours. In this paper, data obtained during ethnographic work are labelled as 'fieldnotes'.

Data analysis

Data collection and analysis occurred concurrently. Data from both phases were combined and, in line with the Straussian approach to grounded theory [35], analysed in three steps, using the constant comparative method [36]. First, each section of data was coded according to the phenomenon or concept that was being discussed, thus identifying a number of 'open codes'. Second, an exploration of relationships between codes produced 'axial' codes. Then, 'selective codes'—core categories to which all data related—were identified. Coding was initially carried out by hand before then using NVivo12. The first author (FHH) carried out all interviews and initially coded transcripts. To add rigour, the remaining authors (CW, NA) independently reviewed five transcripts each before discussing emerging themes as a team. Themes were continually reviewed, validated and refined by all members of the research team throughout data analysis until theoretical saturation was achieved.

Development of a conceptual model

The development of a conceptual model was an *a priori* aim of the study. Hospital transfers were conceptualised as the outcome of a process which unfolded whilst the resident was at the care home (although the process could involve people

Table 2. A table to describe the staffing structure and roles at each care home

Site number	Site 2	Site 3	Site 4
Service type	Residential	Residential	Dual-registered
Size	45 beds	15 beds	60 beds
Staffing structure	Manager Deputy Manager Senior Carers Carers A large team of auxiliary staff consisting of an administrator, catering staff, cleaning staff, laundry staff, a full-time maintenance person and regular volunteers	Business Manager Care Manager Carers A small number of auxiliary staff employed as cleaners and one part-time maintenance person	Manager Deputy Manager/Clinical Lead Unit Managers (Nurses) Registered Nurses Senior Carers Carers A large team of auxiliary staff consisting of an administrator, receptionist, catering staff, cleaners, laundry staff, several maintenance people, activity workers and regular volunteers

from outside the care home, e.g. families and healthcare professionals). Similar to the thematic analysis, a grounded theory approach was used to ensure the model was developed directly from the data.

At the beginning of each interview (phase one), staff were asked to describe a recent resident hospital transfer. Staff responses were used to construct a process model of the individual resident's journey, identifying triggers, decisions and interactions. In addition, data about occasions in which staff had decided *not* to transfer a resident to hospital were also used to construct additional process models. Common patterns of escalation were identified through the constant comparative method. These common patterns were then used to develop a preliminary model. The preliminary model was iteratively modified throughout data collection using new examples and insights from interviews and observation. Throughout, we were alert to disconfirming data and used these to adjust the model.

Ethical approval for the first phase of data collection was obtained from the University of Leicester's Research Ethics Committee for Medicine and Biological Sciences (15340). Ethical approval for the second phase of data collection was obtained from the Social Care Research Ethics Committee (18/IEC08/0033).

Findings

Hospital transfers as a series of escalations

With some exceptions (discussed below), resident transfers tended to occur as a series of escalations. When faced with a resident whose health appeared to be deteriorating, staff made a series of decisions. First, the individual who identified the potential deterioration was required to decide whether they could manage the situation alone or whether they should escalate to someone else. Second, if staff opted to escalate, they had to decide to whom.

Despite differences in specific escalation pathways at each site, a similar pattern occurred across sites. Escalations initially occurred internally (i.e. within the care home). This included occasions where a staff member sought out another person from the same staff group (e.g. carer to carer) and occasions where they sought out someone in a more senior position (e.g. carer to senior carer). As each additional staff member was brought into the decision-making process, they too were required to choose between attempting to manage the situation or continuing to escalate. Therefore, it was possible for multiple internal escalations to occur, particularly if there were several layers within the staffing hierarchy. Eventually, if not resolved, the situation could reach a staff member who was perceived to have the authority to decide whether or not an external escalation should be made (to external healthcare services).

The person(s) responsible for calling external healthcare professionals could also differ across sites but these tended to be 'senior' members of staff. In homes with a less formal staffing hierarchy, this responsibility appeared to be determined by informal norms: newer members of staff approached those who were more experienced, and staff who worked fewer hours per week often sought advice from those who spent more time at the care home. This pattern, of escalating first internally and then externally, was evident across all six care homes during both phases of data collection. Ethnographic observations supported the interview data reproduced below, corroborating the notion that hospital transfers often occurred following a series of escalations amongst the staff team.

> *'Mostly it's the nurse taking the decisions. We are just reporting when something is wrong. They are trained so they are making the decision—who is going to hospital, when they should ring the ambulance, when they should ring the GP. It's not for me to decide. In a residential home it's different because there are no nurses.' (Senior Carer, Site 1)*

> *'[The nurse] is responsible for the nursing residents, but if anything happens with anyone from the residential units, it is our responsibility.' [Interviewer: Can the care staff call too?] 'It would only be the seniors making those calls. A senior can call the GP or out of hours whenever we think they need to be called.' (Senior Carer 1, Site 4)*

'Unless they have to go': perceptions of need

In deciding whether to escalate a situation, and who to escalate to, staff made judgements about which situations

required a hospital transfer. Although staff unanimously expressed a preference for caring for residents in the care home where possible, they acknowledged that there were occasions where this was not possible.

During the ethnographic phase of the study, seven transfers occurred across the three sites. In each case, the ethnographer was able to speak to those involved and review associated documentation. The concerns which prompted transfer were: falls and/or suspected injury (two cases of a possible head injury; one possible limb fracture); and general deterioration (one breathlessness; one with hallucinations; two with reduced conscious level).

Some acute problems were considered to require a hospital transfer in most circumstances. The specific conditions understood to 'trigger' a transfer varied between homes and was shaped both by formal care home policies and informally understood norms. Common examples (across several homes) included suspected head injuries and fractures. Therefore, although hospital transfers often occurred as a series of escalations, there were certain conditions that supplanted the internal escalation process and automatically triggered an external escalation.

> *'People who live in a care home, especially with dementia, it's not good for them to go to the hospital . . . it's completely different . . . So, it's better to stay here. Unless they have to go.' (Senior Carer 1, Site 4)*

> *[Interviewer: Are there any common reasons why residents are sent to the hospital?] 'It's mainly a bump to the head, breaks and things like that. Normally we do try and keep residents at the home . . . they need to be going to the hospital when they need scans and things.' (Senior Carer 1, Site 2)*

In situations that did not meet the understood trigger for immediate transfer, staff drew on their knowledge of what was considered 'usual' for each resident to make resident-specific judgements about whether the situation warranted a hospital transfer. This could include (but was not limited to) knowledge of each residents' 'usual' mood, mobility, appetite, behaviour and physical appearance. Staff working in all roles discussed the importance of knowing each resident but it was described in particular as an essential part of being a 'carer'. Several members of staff referred to themselves as the *'eyes and ears'* of the home, responsible for reporting changes to staff in senior roles in order to *'pick up anything that is a possible threat'* to residents' health (Carer 1, Site 1). Staff were more likely to interpret a situation as more serious (and therefore more likely to potentially require a hospital transfer) when faced with something that was particularly unusual for the resident.

> *'We work with the residents every day. We know their routines, we know their characters and we know when there is something up with them. So we play our part with that.' (Carer, Site 6)*

Staff reported occasions when they found it difficult to interpret the severity of the situation accurately. This in turn made it more difficult to determine the most appropriate course of action. Several factors contributed to this uncertainty, including residents not being able to accurately report symptoms; staff being uncertain about their own ability to assess the severity of residents' symptoms; and finding it difficult to anticipate the potential benefits and harms of a hospital transfer.

> *'Sometimes it can be difficult to decide if it is an emergency or not. Unless it is an injury to the head or something like that.' (Manager 1, Site 3)*

> *During a visit today a member of staff described difficulties they faced when supporting a resident who could not accurately report their symptoms. She stated: 'You don't want to over-react, but you also don't want to under-react if they really need to go.' (Fieldnotes, Site 3)*

When faced with situations that were particularly uncertain, participants suggested that they were more likely to choose to escalate (either internally or externally) than to attempt to manage the situation.

'Weighing up' risks: deciding when to escalate

In addition to staff perceptions of need, the decision to escalate was also influenced by staff perceptions of negative consequences that could be associated with their decision-making. Staff described several types of risk which fell into five categories: risks to the resident; to staff (as decision-makers) and their social relationships (e.g. with colleagues, residents, family carers or external healthcare professionals); to the care home as an organisation and to wider health and social care systems. Each of these categories can be conceptualised both as factors which influence decision-making and as different forms of risk which staff feel the need to balance (see Table 3).

Risks to the resident

Throughout data collection, staff spoke fondly of residents in ways that emphasised their personhood and social ties. For example, staff used phrases such as *'if that was your dad'* (Manager, Site 2), *'that's somebody's Nan'* (Carer 1, Site 1) and *'if it were my mum'* (Deputy Manager, Site 2). Staff consistently described and demonstrated a preference, in principle, for keeping deteriorating residents in the care home. They were worried about the potential for residents to experience deteriorations in their physical health, cognitive abilities and well-being whilst in hospital and voiced concerns that care provided in hospital may not sufficiently meet residents' needs. However, they also suggested that there were occasions when the decision to care for residents in the care home could be associated with possible risks to the resident—particularly if residents exhibited life-threatening symptoms or required tests or treatments that were not available in the care home. One member of staff described this as being *'between a rock and a hard place'* (Deputy Manager, Site 2), feeling that all available options (to initiate a transfer, to call an emergency or non-emergency service) could potentially result in undesirable consequences for residents.

Table 3. A table to describe the different factors and perceived forms of risk that influence staff decision-making

	Factors influencing staff decision-making	Perceived forms of risk (i.e. risk domains) that influence staff decision-making
Resident	• Preferences and wishes regarding care (including advance care plans) • Existing diagnoses (including whether the resident is considered to be at the end-of-life) • New symptoms and/or 'changes' in what is usual for the resident • Likely benefits and burdens to the resident's health and quality of life	• Risk of poor outcomes (i.e. reduced health and/or quality of life) • Risk of experiencing poor care in hospital • Risk of experiencing a poor death (i.e. in an unfamiliar environment, surrounded by unfamiliar people)
Decision-maker	• A desire to feel as if one has acted in the best interest of the resident • A desire to be personally and professionally able to justify one's actions • Level of comfort in discussing deteriorations with others (e.g. residents, family carers, healthcare professionals)	• Personal risks—'feeling awful' as if one has made the wrong decision • Professional risks—potentially facing disciplinary hearings and/or being reprimanded
Interpersonal (social relationships)	• The opinions and preferences of others[a] • Anticipation of potential reactions of others[a] • Shared perceptions of the likely benefits and burdens associated with a transfer	• Damaged relationships with others[a]
Organisational (care home)	• Written policies and procedures • Availability of senior staff to support decision-making • Formally imposed ways of working	• The risk that the care home, as an organisation, will be seen to be at fault for deteriorations in residents' health • Damage to the care home's reputation
Institutional (wider health and care system)	• Availability of support from external healthcare services (e.g. GPs or Out of Hours GPs)	• The potential to 'waste' healthcare resources, • The potential to damage broader public perceptions of social care

[a]Residents, colleagues, family cares and healthcare professionals.

'When we transfer residents [to hospital], they come back with bed sores or they have lost weight... That is our main concern—they always come back with a problem.' (Nurse, Site 4)

'You question yourself—by going into hospital what can they do any more than we can do here?... So, you weigh that up, you weigh up how distressed a person would be. But you are all the time having to weigh that up against your duty of care to make sure they are going to be OK.' (Deputy Manager, Site 2)

Risks to the decision-maker

Staff also described potential consequences that they, as a decision-maker, could face. As in the final extract above, several participants referred to a 'duty of care' for residents. Staff were motivated by a desire to feel they had 'done enough' for residents and acted in a resident's best interests. They also discussed the potential professional and legal consequences that could occur due to their decision-making and the associated need to ensure they were 'covered' and able to 'justify' their actions.

'It is a very sobering thought that you and your career, especially as a nurse, you can be suspended and scrutinised, you can face legal ramifications . . . You have to bear that in mind and have the experience and the wisdom to say—if I were going to be reprimanded, would I be able to justify?' (Manager, Site 4)

'It is not a nice feeling these days—to have that hanging over your head about whether you should have rang an ambulance or not. And I think the nurses are worried about [their professional registration], their responsibility, allegations and all that.' (Manager, Site 6)

Risks to social relationships

Decision-making was associated with the potential to damage several social relationships if, for example, staff made decisions which did not align with others' views of the 'right' or most appropriate course of action. These social relationships included those with residents, family carers, colleagues and healthcare professionals.

Staff anticipated the reactions of others and sought to make decisions that would avoid conflict, thus preserving social relationships, highlighting the ways in which decision-making could be influenced by and embedded within social relationships.

'There are occasions where relatives are demanding for their loved ones to go into hospital even when it is not needed. And it is quite difficult to manage. We all know that we need to avoid unnecessary hospitalisations but it happens. What can I say? I need to be honest.' (Manager, Site 1)

*Tonight I spoke with two Carers who suggested that staff can find it difficult to know when to make a call. This is because if they **don't** call an ambulance they will be asked 'why didn't you call?' but when they **do** call an ambulance the ambulance staff question whether the call out was needed and ask 'why did you call?'. They described this as being 'damned if you do and damned if you don't'. (Fieldnotes, Site 4)*

Risks to the care home organisation

The need to be 'covered' and to be seen to make the right decision, also extended to the wider care home in which the individual member of staff worked. Staff described the

possibility that their decisions could have repercussions for the wider care home organisation and for the ways in which other people (family carers and external healthcare professionals) viewed the home. Staff described this form of risk in the same way they described risks to themselves as an organisation; however, when discussing risks to the wider team and organisation, often they would use the plural pronoun 'we' rather than the singular 'I' or 'me'.

'Today, with allegations and safeguarding issues… I think sometimes ambulances are called because we need to cover our backs.' (Manager, Site 6)

'If [a new resident] came in… you err on the side of caution… that is very important because we can't be seen to shrug it off.' (Manager, Site 2)

Risks to the wider health and social care systems

To a lesser extent, staff also referred to risks to wider health and social care systems. Staff described the healthcare sector as *'under stress'* (Carer 2, Site 2) and *'very busy'* (Deputy Manager, Site 1). Care home staff were aware that their decision-making could have implications for the wider healthcare system and sought to ensure that they only requested support from healthcare services when they perceived it to be necessary and appropriate. Staff were aware that healthcare resources (e.g. GP time, ambulances) were limited and described a desire to avoid 'wasting' resources.

'I don't want to waste people's time because I know people call [999] for really silly things.' (Carer 2, Site 3)

'We don't waste the GP's time… yesterday a gentleman was more confused, and he had increased urine frequency, so we tested his urine. I emailed the doctor, described the symptoms, and said, 'according to my view it is not necessary that the doctor visits, but shall we prescribe something?'… The GP said OK, we didn't waste his time and the patient is already better.' (Manager, Site 5)

Staff also discussed the potential for their decisions and actions to influence broader perceptions of care homes, the social care sector and staff working within it. Several participants believed that healthcare professionals often did not recognise and value the skills of care home staff, particularly their ability to assess a resident and to determine which service would be most appropriately placed to respond.

'[Ambulance staff] judge us… they think that because we work in a nursing home, we don't know anything… We are educated people… We work in a nursing home, but we know what we are doing.' (Nurse 2, Site 4)

Outcomes of decision-making

Based on the assessments that care home staff made—of whether a resident required an immediate transfer or could be managed in the care home and of the potential benefits and risks of initiating and avoiding a transfer—staff described three main outcomes of their decision-making. If staff felt comfortable to do so, they could choose to manage the resident within the care home. This was often accompanied by continued or increased monitoring of the resident. Alternatively staff could choose to escalate to an emergency (i.e. paramedic) or non-emergency service or healthcare professionals (i.e. GP or district nurse).

Following an escalation to services outside of the care home, a decision could be made to transfer a resident to hospital or to continue to care for the resident within the care home. Staff suggested there were instances in which the person attending from an external service may become the sole decision-maker; however, in other instances decisions were collaborative, occurring through a process of negotiation with care home staff, the resident and their families.

'Staff called a GP as they were unsure if a mark on a resident's arm was a rash (indicative of a possible skin infection) or a bruise (indicative of a possible injury). The resident was unable to report their symptoms accurately but appeared to be in pain. The GP prescribed antibiotics (for the possible infection) and scheduled an x-ray for two days later to rule out injury. After the GP left the home the nurse said she felt the residents needed an x-ray sooner, however she felt that once the GP became involved, the decision to transfer the resident (or not) was "taken out of [her] hands". She said she could not "override" the GP's decision because she had requested support and would find it difficult to justify acting in a way that contradicted the GP's recommendation.' (Fieldnotes, Site 4)

'We work as a team [with the ambulance staff] because they want information from us—the [medication] sheet, the past history of the patient... So we work as a team and we have good relations with them, because we need them but they need information from us'. (Nurse, Site 4)

A conceptual model of care home staff decision-making

Based on the data collected, a conceptual model of staff decision-making was developed iteratively and continually refined throughout the duration of the study. The final model, describing staff decision-making when faced with a resident who potentially requires a transfer to hospital, is presented in Figure 1. Whilst the central box describes the decision-making process(es) that staff undertake, the different forms of risk which influence this process are presented in the tangent circles. The model provides insight into how the themes interact to shape staff decision-making. It also identifies points at which 'negotiation' takes place with external colleagues. Family may be involved in this negotiation before or after external escalation.

Discussion

Summary

Based on the findings presented, a conceptual model of care home staff decision-making is outlined (see Figure 1). Staff decision-making about potential hospital transfers can be conceptualised as a series of escalations in which staff make complex, multifactorial decisions in which they weigh up a number of potential benefits and risks. This can include risks to residents, staff (as decision-makers) and their social relationships, care homes (as organisations), and wider health and social care systems. Despite differences in specific escalation pathways within each care home, a pattern emerged with

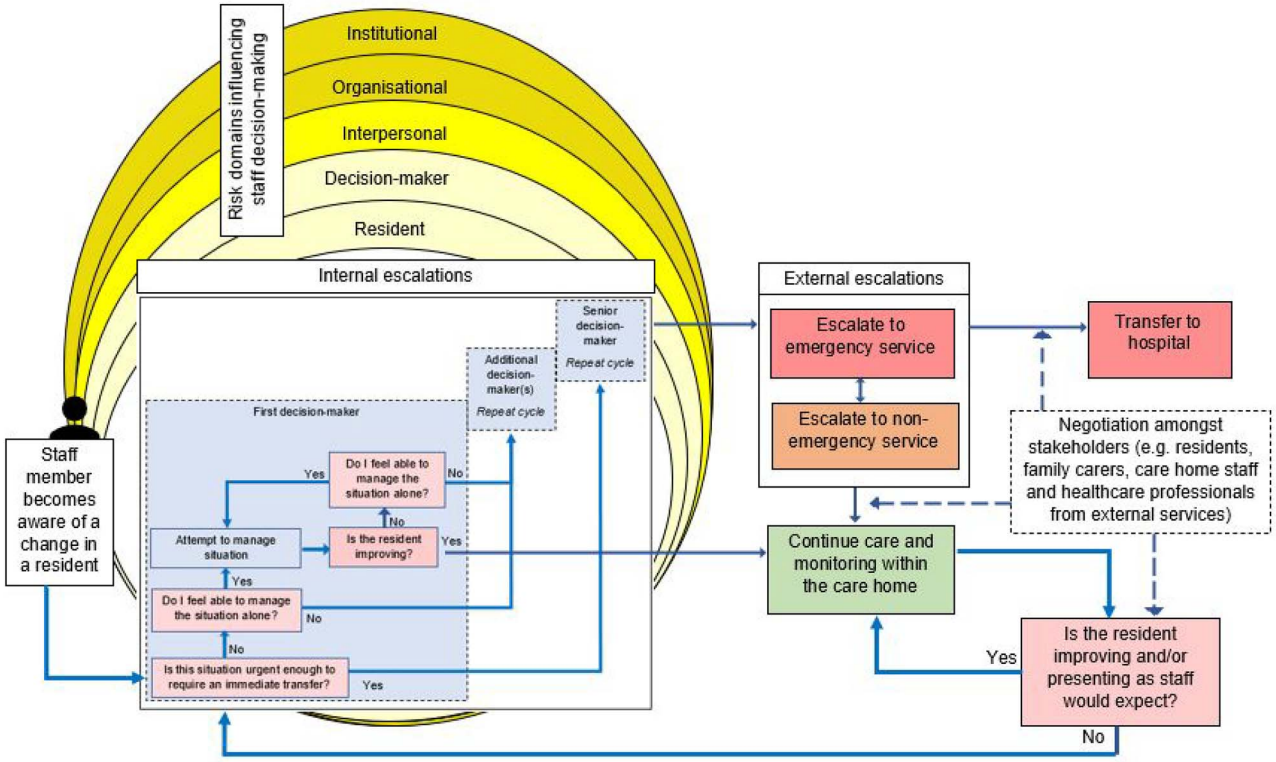

Figure 1. A conceptual model of care home staff of the decision-making when faced with a resident who potentially requires a hospital transfer.

escalations usually occurring initially within the staff team, prior to external escalations being made. This is significant, as the work that staff undertake 'in house' prior to calling external services has not been well-recognised or described in academic literature and may be under-estimated by attending healthcare professionals. Furthermore, although there were occasions in which staff described decision-making as relatively straightforward (based on a 'condition-specific' view that the benefits would outweigh potential burdens), more often than not staff described a process of 'weighing up' risks—feeling that both options (to transfer or not to transfer) could result in potentially negative consequences.

Comparison with existing research

Existing research has identified particular clinical symptoms and health conditions that are associated with resident hospital transfers [5, 11, 37]. Whilst this research is valuable, the results of this study suggest that clinical features represent only some of the factors that influence staff decision-making. This study is not the first to highlight the role of non-clinical factors in staff decision-making. Whilst previous studies suggest that staff decision-making is influenced by a wide range of factors [27, 38], the results of this study move beyond a descriptive list of factors which shape decision-making, to produce a more detailed model of staff decision-making, explicating both the processes of decision-making and the factors that shape decision-making within the care home.

Authors who have highlighted the complexity of transfer decisions have called for a more structured and standardised approach to assessing and responding to deteriorating residents—for example through advance care planning or standardised decision-aids [10, 15, 28, 39]. Some decision-aids are able to accommodate clinical information alongside information that may be thought of as 'soft signs' of deterioration—for example staff knowledge of what is considered 'usual' for each resident [40, 41]. Whilst this is a potential solution, the results of this study suggest that these interventions alone may not be sufficient to address the multiple factors that influence decision-making about deteriorating residents and that interventions must also reflect the complexity of the decision-making that staff are required to undertake.

Strengths and limitations

Strengths include the use of different methods of data collection and a purposive sample of care homes and participants. Semi-structured interviews enabled new findings and topics of conversation to emerge and the use of vignettes allowed participants to discuss the topic in a less personalised way. Whilst interview data may be considered subjective and prone to desirability bias (with staff reporting the more positive aspects of their professional behaviour), combining this with ethnographic fieldwork allowed us to triangulate data and compare what was reported in the interviews with what was observed in practice.

The results presented were derived from a study exploring care home staff decision-making about residents who potentially require a hospital transfer. Previously published work, which draws solely on the interview data, described care home staff perceptions and experiences of using written advance and emergency care plans during in-the-moment decision-making about potential resident hospital transfers [32]. The current paper draws on both phases of data collection to develop a conceptual model of care home staff decision-making (presented in Figure 1).

Although the findings of this study have been shared with care home staff (both staff who participated in the study and staff who did not), other methods of stakeholder input (e.g. co-development) may have strengthened the model. This study focused on the views of care home staff, affording less attention to the views of others who play a role in deciding whether to transfer residents to hospital, for example ambulance staff and residents' family members. It is clear from our study that transfer decisions occur within the context of multiple social relationships: further work is required to explore the ways in which such social relationships influence staff decision-making.

Both phases of data collection were conducted prior to the Covid-19 pandemic. Internationally, the impact of Covid-19 on care homes has been well documented in terms of high excess mortality amongst care home residents and the lack of personal protective equipment and testing available to care home staff and residents in the early stages of the pandemic [42–44]. The pandemic exposed pre-existing weaknesses, including issues with funding, lack of integration between care homes and healthcare services and the lack of access to clinical expertise and bereavement support [43, 45]. If data collection had not been completed prior to the pandemic, Covid-19 would likely have prevented or significantly curtailed this study. Furthermore, it is highly likely that the pandemic has had an influence on decisions about whether or not to transfer residents to hospital. The central argument of this paper, that hospital transfers from care homes can be conceptualised as a series of escalations and that complex and multi-faceted decision-making is required, remains relevant. However, it is likely that the pandemic has adjusted the weight attached to different issues that staff weigh up during decision-making.

Implications for research, practice and policy

Given that risk appears to be a central tenet of staff decision-making regarding resident hospital transfers, we suggest foregrounding risk in academic, policy and educational discourses. The model presented in this paper could provide researchers with a new lens through which to identify, develop and appraise new and existing interventions to ensure residents receive appropriate care in appropriate settings. At a policy level, the findings of the current study provide support for the argument that distinctions between transfers that are 'appropriate' and 'inappropriate' may be over-simplistic and may not capture the complexity of staff decision-making regarding potential hospital transfers. Caution in applying terms such as (in)appropriate transfers and moving towards an acknowledgement of the complexity involved in decision-making is an essential step in understanding hospital transfers from care homes. Future research is needed to identify existing theories of risk which could be of relevance and to identify new and existing interventions to help staff to manage or mitigate against risks.

Conclusion

The model presented in this paper suggests that care home staff decision-making regarding potential resident hospital transfers is complex, multifactorial and influenced by a variety of factors. Moreover, these influences can be conceptualised as different forms of risk, which staff feel responsible for prioritising and managing.

Supplementary Data: Supplementary data mentioned in the text are available to subscribers in *Age and Ageing* online.

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