Using a systems perspective to understand hospital falls among patients with dementia

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ABSTRACT

Background: Falls are a frequent event among older adults with dementia during their hospital stay. This qualitative study explores the factors contributing to falls in this population using a systems perspective.
Methods: Semi-structured interviews were conducted with 32 carers of patients with dementia and 20 hospital staff who worked on medical wards. Interview transcripts were analysed thematically using a systems framework.
Results: The themes generated from this falls research were factors related to the: patient (e.g. their physical health), carer (e.g. their ability to re-call a patient's past medical history), staff (e.g. teamwork), hospital policies (e.g. transfer of patients between wards), the hospital environment (e.g. lack of observation side rooms for infectious patients who are at risk of falls on some wards) and the use of hospital equipment (e.g. walking aid).
Conclusion: We recommend that future hospital falls intervention programmes need to be supported by a credible systems approach aiming to improve patient outcomes in relation to falls prevention.

1. Introduction

People with cognitive impairment are at high risk of falls [1–3]. The causes are multifactorial [4–7]. While some environmental interventions have been found to be beneficial in reducing falls amongst older people [8], they may not benefit patients with dementia who may forget to use equipment [9] including call bells [10] and mobility aids [11] due to memory difficulties [10]. Conclusions from a recent systematic review indicated that current falls prevention measures for people with dementia are inadequate [12]. Previous approaches to reducing falls among older people with dementia have not used a systems perspective that incorporates the many factors that interact to increase falls including those relating to the person, their carers, and their environment [12].

Previous researchers have suggested that the use of a systems approach could reduce adverse health outcomes including falls [13]. Such a holistic approach considers hospital policies, environment, culture, patient-carer-staff working relationships and the use of equipment as a whole [13]. This differs from other approaches. The use of person-centred approaches has limitations and can involve increased costs and a tendency to minimise staff needs [14]. Both psychological and rights-based approaches are limited because of their focus on the individual [15]. A systems approach on the other hand addresses some of these limitations by looking at the patient within the hospital context. It is not individualistic, involving a careful look at how the characteristics of patients, family and staff influence the patient journey and care. This approach potentially enhances outcomes because it recognises the complex nature of the health care system and addresses its various elements [16] to improve care [17].

As currently there is little evidence for effective falls risk prevention in hospital [18], it is important to develop novel approaches. The aim of this study was to understand hospital falls through the lens of a systems approach to inform future falls intervention studies.

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2. Methods

2.1. Design

A qualitative methodology (constructivism which implies multiple understandings) was used to understand the views of carers and staff regarding hospital falls [19] and to obtain a holistic view of the factors that contribute to these falls. The interviews were based on ideas from the work of Edwards [20], Hawkins [21], Zecevic et al. [22] and Duah-Owusu White et al. [13]. These ideas identified by the previous authors covered the key principles of a systems approach (i.e. human interactions, hospital equipment, policies and environment). The questions for interview were developed to explore how participants felt these key areas contributed to falls in hospital. The aim of the interviews was to develop knowledge about falls through the lens of a systems framework. The study was conducted on six medical wards in a busy UK acute hospital. The decision to interview carers and staff on medical wards was made because previous researchers have suggested that patients with dementia on medical wards are likely to stay in hospital for a longer period of time than those in other departments (e.g. surgical) [23]. The wards had a falls policy in place at the time of the interviews that covered: 'risk assessment, medication review, management of blood pressures, provision of patient leaflet, use of bed rails, low beds, footwear, post-falls management, training of staff and the reporting of incidents' [24]. This policy did not appear to have included the voice of carers. Patients with dementia were not interviewed and observed as the first NHS ethics committee determined that their admission into hospital rendered them too vulnerable and they therefore did not give us permission to interview and observe them. We also did not want to put undue stress on these patients.

2.2. Sampling and recruitment

The inclusion criteria for staff was the ability to provide informed consent and a previous/ present experience of caring for patients with dementia. Family carers were also included if they could provide informed consent and visited the patient at least once a week. Participants were recruited using flyers and posters. Staff identified carers of patients with dementia. Both staff and carers were given details about the study after contacting the researcher directly. The participant information sheet and consent sheets were then given to participants who expressed interest in the study. Interviews were held after participants confirmed that they had understood the contents of the participant information sheet and signed the consent sheets for the research. A total of 13 carers and 6 members of staff (Occupational health therapist, Domestic assistant, 3 Doctors, and 1 Support worker) refused to take part in the study. The main reason provided by staff and carers for not taking part was time constraints. We gave research participants a cooling off period of 24h for them to decide whether to take part following their expression of interest and preliminary chat about the study.

2.3. Procedure

The interviews took place from 14th October 2019 to 14th January 2020. The first author in a quiet room on the ward conducted the interviews. The interviews were audio recorded and facilitated by the use of a semi-structured interview guide (please see appendix). The length of time for the interviews were approximately 20min. The interview guide centred around whether staff-patient-carer relationships can help to reduce falls and if the use of hospital equipment, environment and Trust documents can help with the reduction of falls [9]. We conducted interviews rather than focus groups in a quiet room on the ward because we did not want to affect patient care and safety by taking away many members of staff from the ward at the same time.

2.4. Analysis

The first author transcribed all the interviews. A member of the research team crosschecked the accuracy of the transcripts. A deductive approach was used to generate themes (using system theory categories) whilst sub-themes were developed inductively (i.e. coding data without theory) [25]. This process involved reading over with the data, labelling, sorting and summarising the findings [26]. This was managed using Nvivo 11. The researcher coded the data on a sentence-by-sentence basis by reading over the data several times and assigning codes to each sentence. We coded data at the semantic level. The researcher analysed staff and carers views separately. We compared the codes for similarities. In terms of reflexivity, the researcher's nursing background could have influenced the interviews, analysis and discussion [27]. This type of bias was minimised by using a theory informed semi-structured interview guide approved by a NHS ethics committee. Furthermore, a member of the research team crosschecked some of the transcripts for possible errors. In addition, the first author circulated the codes generated from NVivo, the findings and discussion of the study to other members of the research team. Regular research meetings were also held to facilitate the research.

2.5. Ethics

Ethical approval was obtained from the North West-Greater Manchester Central Research Ethics Committee (Reference number: 19/NW/0404), the Health Research Authority and the participating hospital. The main ethical principles adhered to were: informed consent, voluntary participation, confidentiality, privacy and the anonymisation of the research data. This was achieved by working in collaboration with hospital staff, the research department of the hospital, the Health Research Authority and the Research Ethics Committee.

3. Results

A total of 32 carers and 20 staff were interviewed. The interviews were conducted with staff from a range of disciplines and years' of experience (see Table 1). The gender of carers interviewed was as follows: 11 males and 21 females. The findings of this research are grouped under the following headings: patient factors, carer factors, staff factors, hospital policies in relation to falls, hospital environment in relation to falls, and the use of hospital equipment in relation to falls.

3.1. Patient factors

Carers reported that patients with dementia had multiple co-morbidities (e.g. postural hypotension and cerebella ataxia). One carer stated that their relative had just been provided with blood pressure medication (this may for example increase one's risk of falling if it results in hypotension [28]).

There doesn't seem to be anything that anybody can really do to stop him

Table 1

Characteristics of hospital staff interviewed (N=20).

Staff type	Number	Duration of employment
Healthcare assistants	6	4 and 9 months, and 1, 2 17 and 18 years,
Assistant practitioner	1	2 years
Staff nurses	3	4, 6 and 8 years
Dementia and delirium specialist nurses	3	2 years x 2, 4 years
Occupational therapist	1	23 years
Specialist nurse in Parkinson's disease	1	15 years
Discharge co-ordinator (manager)	1	3 years
Deputy sisters	4	3, 5, 6 and 15 years

falling. So I wouldn't really have an answer to that. If he stands up he falls over. So they have put him onto medication today. Started him on medication today. To try and keep his rising and falling blood pressure more stable. So I guess that might help.

(Carer, participant 18).

This quote indicates that an adequate management of blood pressure is important in the reduction of falls. Another carer mentioned that his mother was not interested in meeting new people (i.e. volunteers) as she sees them as a 'busy body'. It is worthwhile to note that volunteers can help make a patient calm and assist with patient care. Carers mentioned that the admission of their relative into hospital had negatively affected the physical health of the person with dementia and they became frailer. They mentioned that their relatives might not remember to use their mobility aids. Others were worried about the nutritional status and sleeping pattern of their relatives. Staff stated that patients found it difficult to comprehend the rationale behind medical procedures (e.g. not understanding how to mobilise with a catheter and walking with a catheter in situ incorrectly with a risk of tripping over the tubing). They also mentioned that patients were unable to remember how to use their call bells when they needed help in hospital (e.g. patient may self-mobilise with associated risk of falling etc.).

'Because when they don't have capacity they cannot ring the bell' (Staff, participant 15).

The key points are that the patient's medical and physiological condition can increase the risk of falling.

3.2. Carer factors

Staff and carers stated that carer's made patients calmer and also helped to address patients' needs. Addressing the patients' needs and making them settled reduces unassisted walking and the subsequent risk of falls.

'For my part is trying to calm him down and to understand what the doctors are trying to do for him' (Carer, participant 47).

Staff were also able to gather information about the patient's past medical history (e.g. falls) through their interaction with relatives.

'If they let us know this patient has a history of falls, how many falls he had whatever bla bla. That will be great. So we know this patient is high risk of falls so will be prevented' (Staff, participant 9).

Family members involved in the care of patients understood and accepted the gradual decline of the patient's physical health.

The key points are that family carers can provide staff with useful patient information on falls and help the patient to relax thereby helping to reduce agitation and subsequently falls. The involvement of family carers in patient care can help carers to understand the trajectory of the patient's illness (e.g. dementia).

3.3. Staff factors

Carers felt that pertinent information about patients was not passed on to other health care workers during handover and staff-family communication was inadequate.

'They are not telling us what they have done with him. We don't know whether he's cleaned his teeth, we don't know whether he has had his hair washed. We don't know if he's been to the toilet. Because we are not getting that information either' (Carer, participant 20).

This is particularly important as the patient's falls risk needs to be communicated during handover. One carer mentioned that staff were absent on the ward during visiting hours. This made it difficult for them to keep up-to-date with the patients care plan. One carer reported inadequate care (i.e. patient was not immediately attended to after soiling themselves which could result in a slipping incident). This situation could result in falls. Staff on the other hand had to adapt their communication techniques to ensure that the patients' needs were met. They worked in teams to reduce falls (i.e. good handovers, referring patients to the falls team, use of volunteers, observation of patients and

one-to-one nursing). Staff had to manage their negative feelings following the occurrence of a fall on the ward. They had to conduct falls risk assessments on patients, document in-hospital falls as well as reassess the patient after a fall.

'If I find the risk, high risk, I reassess the risk, I do a risk assessment which is done on Electronic Nursing Assessment. Yeah. Falls. And then I talk to my manager. I say see this is the patient. He keeps getting up and he is unpredictable. Please help me. And if you don't communicate that then it's your fault I think. But open communication helps in that way. And liaising with people. Especially with us it is very good because of handovers. We are told its part of our handover' (Staff, participant 16).

The main key points are that staff factors (e.g. communication, observational and team working skills) are important in understanding patient falls.

3.4. Hospital policies in relation to falls

Carers and staff stated that patients were transferred between wards based on the needs of the hospital (i.e. short and long stay wards).

We were quite happy once we got him onto the ward. But of course that makes him more disorientated. He's in Accident and Emergency for long time. He's moved to a little side ward. He's processed through other departments. Then he goes up to his ward. He's eventually got a bed. That was quite difficult and took a long, long time (Carer, participant 21).

Ward transfers, according to carers could result in disorientation and agitation. A carer felt that shift pattern changes made it difficult to build effective patient-staff working relationships. Some carers felt that hospital policies on staffing levels were adequate whilst others disagreed. This is particularly important, as adequate staffing levels are required to ensure appropriate monitoring and supervision of patients. This is achieved by supporting transfers and walking e.g. by walking with them or fetching their walking stick. Some carers felt that staff were not adequately trained in dementia care. Dementia specialist nurses stated that they had large caseloads. The hospital provided manual handling training, falls and dementia education for staff.

'I know obviously we have to have our falls training. I know that's mandatory training we have to have on falls. I have done a manual handling and falls champion training course. You don't have to do that, but I have done that recently. Which means that I can then cascade training to other members of staff' (Staff, participant 29).

Staff stated that they had to train family members, care agencies and other health care colleagues on patient care generally and in relation to falls.

The key points are that hospital policies that directly affect the patient (e.g. movement of patients between wards) and those targeted at staff (e.g. staffing levels and training) have an impact on falls.

3.5. The hospital environment in relation to falls

Carers felt that the ward environment was busy and noisy. Carers felt that the hospital environment could benefit from the display of appropriate art and access to natural daylight. They suggested the use of colour codes on the wards as it reduces unaided walking and the subsequent risk of falls.

I notice people wandering from bay to bay. Because they don't actually understand where they are supposed to be going. I know they've got bright bit on the doors which is supposed to help direct them. If the bays were different colours. That might help somebody orientate themselves if they've got up and gone to the toilet and they can't remember which bay they are in. If it is a particular colour that might help (Carer, participant 42).

Staff stated that the hospital environment was unsuitable for patients with dementia in regards to falls. Some staff for example found it difficult to help patients because of small toilet spaces.

By the time you get a Zimmer frame, commode, hoist, rota stand in and around these bed spaces there is not enough room. You push the curtain across in order to get all these equipment in but it prevents the person in the

next bed from not getting out (Staff, participant 1).

The person in the next bed can trip if they get out of their bed without being aware of the hazards around the bed space. There was a lack of observation side rooms for infectious patients who were at risk of falls. Carers and staff stated that the hospital hard floors could result in injury. Staff suggested the use of coloured toilet seats for easy identification. This enables patients to use the facilities correctly and safely so there are no spillage accidents with the associated risks. Staff stated that it was important to have adequate lightning on the wards and ensure there were no trip hazards.

The key points are that patient factors: sight, hearing (e.g. too much noise may make one confused) and cognitive processes (e.g. navigational difficulties) interact with the environment to affect falls. Non-patient factors, which may have an impact on falls, include the diurnal cycle, architectural design and trip hazards.

3.6. The use of hospital equipment in relation to falls

Carers felt that the correct use of bed rails could help to reduce falls.

'They've got the side rails up. They've got the bumper bit round. Because he's a bit inclined to lean over to one side' (Carer, participant 43).

Staff stated that there were not enough low beds at the hospital. Inappropriate use of hospital equipment (e.g. slide sheets left after they have been utilised could result in patient falls). Furniture walking by patients could result in falls. The use of appropriate hospital equipment could help to reduce falls (e.g. walking aid).

'Whether it be a Zimmer frame or four wheel prong or is a quad stick or anything. It just help the patient. Rather than them use the bed side tables which can roll. It just help them to remain stable and on their feet' (Staff, participant 6).

The key points are that the non-use, misuse or indeed appropriate use of equipment influences hospital falls.

4. Discussion

This is the first qualitative study to explore the views of carers and staff about the prevention of falls amongst patients with dementia using a systems approach. The themes generated from this falls research were factors related to the: patient (e.g. their physical health), carer (e.g. their ability to re-call a patient's past medical history), staff (e.g. teamwork), hospital policies (e.g. transfer of patients between wards), the hospital environment (e.g. lack of observation side rooms for infectious patients who are at risk of falls on some wards) and the use of hospital equipment (e.g. walking aid).

Although a systematic review has indicated that person or patient-centred care can help to minimise falls [29], we decided to use a systems approach because of the challenges present in acute settings such as high staff workloads and the need to complete additional administrative tasks (e.g. checklist) [30]. This situation limits staff ability to provide person or patient-centred care, which requires an intensive use of resources [31]. Therefore, it is more appropriate to use a systems approach because it addresses patient care in multiple dimensions. This will enable future studies to address the needs of patients holistically.

Previous researchers have identified the role of the environment, equipment, staff and the condition of the patient in sustaining harmful falls amongst older patients [32]. The contribution of the patient's characteristics (e.g. memory difficulties, co-morbidities, sleeping difficulties), environment and equipment to falls has been previously discussed [32]. This previous study, however, focused on older patients as opposed to patients with dementia. Staff in this study stated that the involvement of family carers makes patients calmer. Previous researchers have found a link between agitation and risk of falls [33]. Therefore, in terms of the human component of the systems framework, the involvement of carers in patient care is important. This study found that patients were transferred between wards multiple times. Policies in relation to the transfer of patients between wards requires further

attention because previous researchers have found a link between ward transfers and a patient sustaining a fall [34]. In terms of hospital equipment, some carers felt that the correct use of bed rails could help to reduce falls. The use of bed rails requires caution as patients are likely to injure themselves as they fall from a higher height when their bedrails are up [35]. In terms of the environment, carers suggested the use of colour codes on the wards. This finding is particularly important as being in an unfamiliar acute hospital setting can increase one's susceptibility to falls [36].

The finding generated from the current research is an increased understanding of how hospital policies contribute towards the prevention of falls amongst patients with dementia. Although polices can help to reduce falls, staff implementing such protocols encounter challenges such as working under pressure and inconsistencies in the documentation of falls [37].

The current study has also highlighted the invaluable role of family carers in the prevention of falls amongst patients with dementia in the acute setting. We confirmed the finding in a previous systematic review, which indicated that the involvement of carers in hospital care helps staff to meet the needs of patients [38]. Previous researchers have, however, focused on staff views on prevention of falls amongst patients with dementia in the acute setting [39,40] and the carers' views on falls prevention amongst older people at home [41]. Findings from the current research indicates that family carers can support staff in the prevention of falls amongst patients with dementia in hospital. This is because carers are able to calm agitated patients and assist staff with the medical history (e.g. provide previous falls information) of the patient. Carers need to be seen as part of the wider multidisciplinary team. Carers can also be part of Patient and Public Involvement groups when setting ward routines. This will enable the voice of carers to be incorporated into care decisions. In the current climate or within a COVID climate, the influence of care partners on falls was likely to be minimised as carers were being refused access to hospitals when the person with dementia was admitted.

The key and novel recommendation is the fact that future hospital falls intervention programmes need to target each aspect of the hospital system in order to improve patient outcomes. Our findings could inform a better UK NHS hospital falls policy because it adds the voice of carers in this research. Senior staff members should strive to improve team working on the wards. Designing hospital staff falls training programmes with a systems framework in mind is likely to be beneficial. Hospital managers need to own the essential nature of providing a dementia friendly environment.

A relatively large number of people were interviewed and therefore data saturation was obtained (as interviews were embedded in a systems perspective, which helped to provide a holistic account of staff and carers experiences). The interviews were structured around a systems approach, which enabled the researchers to obtain a holistic view about the factors that influence the occurrence of falls amongst patients with dementia.

The research was conducted in a single UK hospital. The findings may therefore not be transferable to other hospitals. A limitation is that the sociodemographic factors that could have influenced the comments were not captured and should be in future studies. Another limitation of the study is that the researcher could not interview and observe patients with dementia because the first NHS ethics panel determined that their admission into hospital rendered them too vulnerable and permission to interview and observe them was therefore withheld. We also did not want to put undue stress on patients with dementia. In addition, we did not observe patient-carer-staff interactions. However we chose not to do this because staff may change their working relationships with patients when a researcher is physically present on the ward conducting observations [42]. Lastly, a cross case analysis to explore any similarities and differences within the themes across wards was not completed.

Future researchers should incorporate the views of patients with dementia in further studies. They could also carry out patient-carer-staff

observations in order to obtain an in-depth understanding of dementia care. Intervention studies, using a systems approach, are needed. Future studies should be conducted with a diverse range of participants.

5. Conclusion

Current falls prevention measures in hospital are mostly individually evidence driven e.g. completing risk assessments and implementing bedrail policies. This makes falls interventions incomplete in that a whole systems approach is missing. We recommend that future hospital falls intervention programmes need to be supported by a credible systems approach aiming to improve patient outcomes in relation to falls prevention.

Declaration of Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix 1

Interview guide for staff (nursing, medical, allied healthcare professionals, support staff) using a system framework (human interactions, environment, equipment, paperwork):

Introduction

Researcher: My name is Mary Duah-Owusu White. I am a student from Bournemouth University. How should I address you?

Staff: Wait for response.

Researcher: How are you feeling today?

Staff: If the person is feeling OK, the researcher will continue with this introduction. If the person is not feeling too great, the researcher will ask if it is ok to continue or re-book the meeting).

Researcher: I am currently researching on the discharge planning process and the reduction of falls amongst people with dementia. This interview will take approximately thirty minutes. Please interrupt this interview at any point should you feel uncomfortable. In the event that you say something that indicates significant harm such as abuse, I will be obligated to report to the hospital safeguarding team. I would like to audio-record this interview if that is ok. The recorder will be locked in a cabinet and the researcher will delete everything after she has transcribed the interview herself. The researcher's supervisors will cross-check a sub-set of the transcripts for accuracy. "You can refuse to answer any questions that you are uncomfortable with. Your name will not be linked to what you say. Is that OK?"

Staff: If the member of staff accepts, then I will proceed.

Researcher: Please read through the study's information sheet so that you know in detail what the research is all about. Please ask me questions if you have any concerns. Please sign the consent sheet to confirm that you are happy to continue with this study.

What is your role in the hospital?

How long have you worked in this role in the hospital?

What has been your experience of talking with or meeting patients who have dementia in this hospital?

Do you find it helpful involving family or paid (home) carers in the reduction of falls?

In what ways do you utilise other members of staff in order to help with the reduction of falls?

How can the hospital environment be improved to help with the reduction of falls?

How does the use of patient equipment affect the reduction of falls?

Are you aware of any Trust (hospital) document on the care of patients with dementia?

Do Trust documents help with the reduction of falls?

Appendix 2

Interview guide for carers using a system framework (human interactions, environment, equipment, paperwork):

Introduction

Researcher: My name is Mary Duah-Owusu White. I am a student from Bournemouth University. How should I address you?

Carer: Wait for response.

Researcher: How are you today?

Carer: If the person is feeling OK, the researcher will continue with this introduction. If the person is not feeling too great, the research will ask if it is ok to continue or rebook the meeting).

Researcher: I am currently researching on how to improve the health concerns or the positive aspects of care for people with dementia. This interview will take approximately 30 minutes. Please interrupt this interview at any point should you feel uncomfortable. In the event that you say something that indicates significant harm such as abuse, I will be obligated to report to the hospital safeguarding team. I would like to record this interview on a tape if that is ok. The recorder will be securely locked and the researcher will delete everything after she has transferred results on to paper. "You can refuse to answer any questions that you are uncomfortable with. Your name will not be linked to what you say. Is that OK?"

Carer: If the carer accepts, then I will proceed.

Researcher: I will read through the study's information sheet with you so you know in detail what the research is all about. Please stop me at any point whilst I read if you have any concerns. I will go through the consent sheet with you to confirm that you are happy to continue with this study.

What has been your experience of being a carer for a patient with dementia on a hospital ward?

Prompts

What has been your experience of falls and what are the factors that influences it?

Prompts

Do you find it helpful involving patients and other carers in the reduction of falls?

In what ways do you utilise members of staff in order to help with the reduction of falls?

How can the hospital environment be improved to help with the reduction of falls?

How does the use of patient equipment affect the reduction of falls?

Do Trust documents help with the reduction of falls?

Appendix 3

Sample of quotes

Theme	Quotes
Staff factor	"Yes, the whole team again works together and we identify anyone that is someone we think is a falls risk. We try to put them in observation bays here. And if necessary, we request more staff so that the individual can be specialised. Have a 1:1 carer with them to try to prevent falls from happening (Staff 3)"[9] "A gentleman was in side room 2. I think it was. I did not know, apparently, he is deaf, stone deaf which is weird because I had a conversation with him and he answered my questions. Very strange. Anyway, he was backing out of the room using the wheeled trolley they have by the bed. And he had pooed everywhere in the bed and all over himself. And he was backing out of the room wanting someone to help him but no one was coming to help him. And he was calling and shouting. So he could have had a fall and I had to assist him and wave several times to get someone to come down. Eventually they did (Carer 25)"[9].
Patient factor	"But with a person with dementia, you try to get them to walk with a Zimmer frame. You can show them how to walk with a Zimmer frame. Do a couple of steps. Then that is it. They forget what else to do. How to walk. That is what I found now at the stage he is with the dementia (Carer 15)"[9]
Carer factor	"So it helps if you get to know the family. And find out how they use. What techniques they use. They can tell you more what time of the day their relative can be more active or more sleepy. When they eat when they do not like eating. And how. We have certain patients. That if their relatives are in they are much calmer. So sometimes, it pays to ask the family, would you like to come in during the day and stay. And help feed. Because then they are not likely to get up during feed times looking for the family member. The family member is there. Therefore, it enables them to sit in a chair. The family member is there (Staff 14)."[9]
Hospital policies	"Being able to teach family how to do falls recovery. So being able to get up from the floor. So even if the patient has forgotten how to do it. The family if they are there are able to safely help them get up (Staff 19)"[9] "When the staff change a lot and the other patients in the ward change a lot. It throws him completely and he then becomes agitated (Carer 1)"[9]
Hospital environment	"But I think it is just making sure, like the Kings Funded a lot of projects about environment and colour and layouts things to help reduce falls. So I think it is trying to adopt those kinds of, those kinds of policies really into. And also obviously stuff like making sure things are clear and free of clutter. The cleaners are aware of the importance of keeping things clear as well so that they can encourage people to do it as well (Staff 19)"[9]. "Well you have very hard floors here. Which obviously if anybody is elderly and they fall on these floors, they going to hurt themselves. I do not know what the solution to that is. Because carpets are obviously, going to be unhygienic and you cannot have that in a hospital environment. But maybe a crash mat might be ok if somebody is say in a single room (Carer 21)"[9].
Hospital equipment	Obviously if you have gone to sit at the edge of the bed and you have a slippy sheet underneath you gonna fall forward. Appropriate use of slide sheet I think is one thing (Staff 8)"[9].

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