

Hospital readmission: Older married male patients' experiences of life conditions and critical incidents affecting the course of care, a qualitative study

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Scand J Caring Sci; 2018; 32; 1379–1389

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Background: Despite the frequency of hospital readmissions, there is still a relatively incomplete understanding of the broader array of factors pertaining to readmission in older persons. Few studies have explored how older persons experience readmission and their perceptions of circumstances affecting the course of care. Research indicates that males experience poorer health outcomes and are at higher risk of readmission compared to women.

Aim: To explore life conditions and critical incidents pertained to hospital readmission from the perspective of older males.

Methods: The study used a qualitative explorative design using the Critical Incident Technique. A purposive sample of four males aged 65–75 were recruited from two internal medical wards. Data were collected through narrative double interviews. The study was registered by the North Denmark Region's joint notification of health research (ID 2008-58-0028).

Findings: The analysis revealed four themes of life conditions: 'Ambiguity of ageing', 'Living with the burden of illness', 'Realisation of dependency' and 'Growing sense of vulnerability and mortality'. Critical incidents comprised four areas: 'Balancing demands and resources in everyday life', 'Back home again – a period of recovery', 'Care interaction' and 'Navigating within and between healthcare system(s)'.

Conclusion: This study illustrated the interconnectedness, dynamics and complexity of life conditions and critical incidents that over time and across diverse healthcare sectors affected the course of care in older persons. Hospital readmissions seem related to a complex web of interacting life conditions and critical incidents rather than growing age or specific illnesses.

Keywords: care of older people, course of care, critical incidents, interview, men's health, older people, patient experience, patient perspective, qualitative methods, readmission.

Submitted 21 September 2017, Accepted 12 April 2018

Introduction

Hospital readmissions are frequent, and transfer from one setting to another is experienced as stressful for the person being transferred (1–3), bringing recently discharged persons in an exposed situation of generalised risk (4, 5).

The population of older persons is largely heterogeneous in terms of health (6) and self-sufficiency (7), health behaviour (8) and health outcomes (9).

Internationally, studies have described significant gender differences in healthcare use and a pattern of men having higher rates of hospitalisation (8) compared to women. Besides, systematic reviews find evidence of male gender associated with increased risk of hospital readmission (10, 11).

Despite the frequency of readmissions, causing turmoil for patients and relatives (3, 12) and adding challenges to the health and well-being of old patients (13), there is still a relatively incomplete understanding of the broader array of factors pertaining to readmission from a patient perspective.

Readmission comprises the course of care over time, transcending organisational boundaries within healthcare

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systems. From interviews with older patients, family caregivers and healthcare providers, Slatyer et al. (14) revealed that declining health, symptom recurrence and/or acute exacerbation of chronic disease interacting with communicative challenges and/or lack of discharge readiness increased the risk of readmission. Correspondingly, Stephens et al. (15) found that the main reasons for readmission comprised complex life and health conditions as well as difficulties navigating the healthcare system. These findings indicate that various types of person-level factors and factors related to the care process interact and shape the patient complexity (16) as well as the care needs of the individual. Furthermore, there is evidence that patient attitudes on readmissions do not always align with those of the healthcare providers (12, 15, 17).

Although conditions of health and well-being of older persons in everyday life as well as incidents related to care process are contributing factors to readmission, there is a lack of knowledge of the interconnectedness of these conditions and critical incidents in everyday life from the perspective of male patients. Therefore, this qualitative study aimed to explore the life conditions as well as critical incidents that over time and across care settings affected the course of care and pertained to hospital readmission from a male patient perspective.

Method

Design

This study was the qualitative contribution in a mixed-methods study design investigating risk factors for hospital readmission of older persons (18). The study had a qualitative explorative and interpretative research approach (19), using the Critical Incident Technique (CIT) (20, 21).

The CIT is a qualitative, systematic and open-ended approach for recollecting descriptive data and a useful methodology for analysing complex factors related to healthcare services (22). CIT was chosen being a structured, open and flexible approach, sensible to the perspective of the individual and suitable to reveal detailed descriptions of conditions and incidents in specific situations and contexts (20, 21). Furthermore, we expected that CIT would require less effort from the participants admitted to hospital due to critically illness and poor overall health conditions (22).

We defined *incident* as any observed human activity sufficiently complete in itself to permit inferences and predictions (20). *Critical incidents* could either be perceived supportive or demanding though decisive and sentinel for whether or not an outcome occurred (20, 21, 23). The term *life condition* describes circumstances, events and facts in everyday life that the individual experiences as important for health and well-being (24). Changes related to life

conditions might increase the overall complexity and vulnerability of the individual (16).

Participants and sampling

The study was conducted at a Danish university hospital. The participants admitted as inpatients as acute admissions to either of two general medical wards (each ward with 24 beds). The sampling strategy was purposive (25), and documented indicators of increased risk of readmission informed the inclusion criteria (11). Based on inclusion and exclusion criteria (Box 1), the ward sisters contacted eligible patients. Neither the ward sisters nor the interviewer participated in the clinical care of the patients.

In total, eight persons were eligible to participate. After being informed about the study by the ward sister, two patients declined to participate. One eligible patient discharged unexpectedly before the first interview could take place and one patient transferred for palliative care, leaving four eligible patients who agreed to participate.

The male participants were in their seventies (Table 1). They were all married, with adult children and grandchildren and lived in their own detached houses. The participants suffered from various health problems and were taking between 12 and 15 different classifications of prescribed drugs pr. day. Regarding the current admission, all participants admitted to hospital as acute admissions due to either deterioration of chronic illness or due to complications and adverse events associated with treatment. During the admission, three participants experienced one or more internal transfers between wards.

Data collection

First author conducted eight qualitative interviews from November 2014 to January 2015. The interviews were based on an interview guide and were conducted as face-to-face interviews based on a narrative approach (19, 26).

Box 1. Inclusion and exclusion criteria

Inclusion:

Male patients admitted as inpatients for acute medical care.
Aged between 65 and 75 years.
One or more discharges from an inpatient hospital stay within the previous 3 months.
Prescribed with five or more drugs per day.

Exclusion:

Persons who were not able to contribute with an informed consent.
Persons admitted or transferred for palliative care.

Table 1 Characteristics of study participants

| Participant | Sociodemograp. | Health problems | Prescribed drugs, number | Number of inpatient stays and days hospitalised previous year ^a | Reason for hospital admission | Length of current stay, days | Days between interviews |
|-------------|--------------------------------|---|--------------------------|--|--|------------------------------|-------------------------|
| A | 73 years Married Retired | Breathlessness Insomnia Constipation Anxiety | 12 | 3/37 | Exacerbation of COPD | 16 | 12 |
| B | 72 years Married Retired | Breathlessness Fatigue Hypoglycaemia unawareness | 15 | 3/126 | Acute episode of unconsciousness Infectious disease (STA) | 15 | 15 |
| C | 74 years Married Retired | Breathlessness Insomnia Constipation | 14 | 2/18 | Renal insufficiency (CKD) | 10 | 14 |
| D | 73 years Married Retired | Fatigue Chronic pain | 14 | 3/20 | Infectious disease (STA) | 8 | 14 |

COPD, chronic obstructive pulmonary disease; STA, Staphylococcus Aureus; CKD, chronic kidney disease.

^aCurrent stay included.

Recruitment of and interviews with older, acutely hospitalised persons for research is recognised as a difficult process (27, 28), and due to the poor overall conditions of potential participants, the first interview was conducted as an introductory interview at the hospital. The first interview took place bedside in the patient's room or in a place where there were no interruptions and lasted between 35 and 40 minutes. The second interview was an in-depth interview conducted in the patient's private home and lasted between 55 and 80 minutes. Using double interviews allowed the participant to be more comfortable with interviewer (21) and revealed time for reflections during and between interviews (21, 22).

To encourage the participant, the first interview commenced with an open-ended question: 'Please, tell me the story of?' To elicit detailed and reflected descriptions of life conditions and narratives of critical incidents (19, 20, 22), we planned further specifying and probing questions (Box 2). During the first interview and together with the participant, a time-ordered critical incident chart (23) was constructed, listing events of importance in relation to earlier admissions, discharges and care experiences (Table 2). During the second interview, this incident chart was used for reflection and deeper mutual understanding, offering the participant opportunity to comment on the preliminary analysis and to deepen and clarify previous statements (19, 23). Thus, the second interview was typically initiated by the following question: 'During the previous interview you mentioned that you worried whether Do you have any comments on that?'

Box 2. Questions to elicit narratives of critical incidents

Please, tell me about your health and wellbeing in everyday life and the course of care the previous year.
What were the circumstances and incidents leading to this (re)admission?
What did you experience as the most supporting or demanding incident?
What are the conditions and incidents that from your perspective might influence the risk of future (re)admission?

All interviews were digitally recorded and immediately following all interviews, the interviewer completed a contact summary sheet with notes and reflections (23).

Ethical considerations

The study was registered by the North Denmark Region's joint notification of health research (Journal ID 2008-58-0028). The ethical principles from the Helsinki Declaration (29) as well as the ethical guidelines for nursing research in the Nordic countries (30) were followed.

To respect the integrity of potential participants, eligible patients were presented with oral and written information about the study notifying them that they could withdraw at any time without any reason and assuring them anonymity and confidentiality in the presentation of the findings. During the interviews, the interviewer was particularly solicitous to the vulnerable situation of the participants (27, 28).

Table 2 Example of critical incident chart

| <i>Critical Incident Chart with Time Line (A)</i> | | | | | |
|---|---------------------------------|---|--|---|---|
| <i>Timeline Month</i> | <i>Prehospital contacts</i> | <i>Hospital contacts</i> | <i>Significant events</i> | <i>Critical incidents Demanding</i> | <i>Critical incidents Supportive</i> |
| January | GPs | | | | Support from friends and family |
| February | GPs | Hospital A (3 days) | | Discharged without feeling any better | |
| March | GPs | ED | Discharged from ED after a short examination | I could not explain my situation to them and felt abandoned without support | I was allowed to be admitted directly to the inpatient ward |
| April–May | GPs | | Side effects due to increase in steroid dose | No supportive relationship between patient and spouse | |
| June–September | GP | | Rejects to be admitted to hospital | Having the feeling of being a burden to significant others | I have my own physician and he knows my situation |
| October | GP HHC | Hospital B (8 days) | Friends call for an Ambulance Spouse do not accept and cancels HHC Prescribed with morphine Constipation Prescribed with sleeping medication Fall | Adverse effect from medication No support for patient input or invitation to participate in decisions Felt like left in limbo when discharged | Support from friends and family |
| November (Interview 1) | GP GPs on call | Hospital B (two internal transfers) (1 + 7 + 8 days) | | No support for patient inputs or invitation to participate. | They (hospital nurses) were putting pressure on me to accept HHC when discharged Knowing what to do if the situation escalates |
| December (Interview 2) | GP HHC Rehabilitation | | | | |

The incident chart is inspired by Miles and Huberman 1994 (23).

GP, general practitioner; HHC, home health care; ED, emergency department.

Data analysis

Under confidentiality, a research assistant transcribed data verbatim. While listening to the audiotapes, the transcripts were read by the interviewer, mistakes were corrected, and notes about nonverbal expression were added. The individual transcript provided the unit of analysis (20, 31).

The data analysis was conducted as an inductive and data-driven interpretation process (21) and encompassed two phases: descriptive within-case analysis followed by cross-case analysis (23).

Within-case analysis. Initially, all data material was read repeatedly to obtain a sense of the whole (32). Based on iterative reading of each transcript, the first step was to identify and mark descriptions of life conditions and critical incidents. The marked text was then coded sentence-

by-sentence (first level coding). Based on definitions of life conditions and critical incidents, these sequences of text were coded as either life condition (code named CON) or critical incident (code named CI) and subsequently (second-level coding) categorised to develop categories (23, 33) and narratives of critical incidents (21).

Cross-case analysis. The cross-case analysis was a comparative and horizontal analysis between transcripts. A final coding (pattern coding) was conducted to identify themes of life conditions and areas of critical incidents (23). Based on rereading of transcripts, codes and categories, segments of text were grouped as themes of life conditions (23) and areas of critical incidents based on patients' narratives (21), respectively. With specific attention to similarities in meaning, the described themes were categorised as four overarching themes of life conditions affecting health and well-being of the participants

Table 3 Main areas of critical incidents and subareas of supportive or demanding critical incidents

| <i>Supportive critical incidents</i> | <i>Main areas of critical incidents</i> | <i>Demanding critical incidents</i> |
|---|---|---|
| <ul style="list-style-type: none"> • Seeing the patterns and understanding what is going on • Knowing what to do if the situation escalates • Peer support - emotional and practical • Next of kin able to react adequately in acute situations | Balancing demands and resources in everyday life | <ul style="list-style-type: none"> • Not being able to understand what is going on • Having the feeling of being a burden to significant others • No supportive relationship between patient and spouse • Next of kin not able to act adequately in acute situations |
| <ul style="list-style-type: none"> • They let me stay at the hospital until the situation had stabilized • Acceptance of perceived weakness and unpredictability without becoming anxious (patient and next of kin) • Coming back to normality and daily routines • Something to look forward to – having projects and aims | Back home again – a period of recovery | <ul style="list-style-type: none"> • Discharged without feeling any better • Hard to regain overview of the medication when discharged • Discharged unexpectedly and the discharge was not planned ahead • Post-discharge complications (i.e. infection) and upcoming diseases • Adverse effects from medication and treatment without being informed (i.e. constipation, fall, oxygen) |
| <ul style="list-style-type: none"> • Clinicians took the time to listen and answered my questions • Clinicians asked to gain deeper insight into the situation • We found a manageable and realistic solution together • They (<i>physicians</i>) keep an eye on me and call me if necessary • They (<i>home care nurses</i>) called and asked if any support was needed • They (<i>hospital nurses</i>) were putting pressure on me to accept home health care when I was discharged | Care interaction | <ul style="list-style-type: none"> • Clinicians seem busy – always keeping an eye on the clock (<i>general practitioner</i>) • They (<i>clinicians and nurses</i>) merely focused on the symptoms or specific tasks without considering the situation as a whole • I could not explain my situation to them (<i>emergency department and emergency physician</i>) and felt abandoned without support • No support for patient input or invitation to participate in decisions • We had to take all the initiative ourselves to make things happen • They followed the routines without asking if anything or something else was needed • Information about the treatment was delayed or restricted |
| <ul style="list-style-type: none"> • They follow the same standards • I have been there so often that I know their routines • I know who and how to contact them (access to gate-keepers) • I was allowed to be admitted directly to the inpatient ward • I have 'my own' physician (<i>general practitioner</i>) and he knows my situation | Navigating within and between healthcare system(s) | <ul style="list-style-type: none"> • Felt like left in limbo when discharged • Not knowing who to contact • The routines were suddenly changed and we had to immediately adapt and find new ways • Mixed information from different specialists • Follow-up procedures unclear • Discontinuity (gaps) in care and treatment due to shifts between providers, wards, inpatient and outpatient services • Lack of capacity in municipality care services (e.g. waiting list for rehabilitation) |

in everyday life. For an overview of the overarching themes of life conditions, see Box 3.

Each participant contributed with between eight and 22 narratives of critical incidents, and a total number of 52 narratives of critical events were constructed. Each of these narratives comprised one or more critical incidents affecting the course of care. Comparing similarities and differences of like events contributed to a deeper understanding of the significance of identified critical incidents (21). With specific attention to inconsistencies and contradictive statements, four main areas of critical incidents were constructed (Box 3) and subareas of critical incident were interpreted and displayed as either supportive or demanding (Table 3).

Credibility was ensured through iterative reading and rereading of the transcripts, codes and categories based on segments of text. Furthermore, the authors discussed and revised the categories including direct quotations, themes of life conditions and areas of critical incidents until a final classification emerged. All authors thoroughly discussed the appropriateness, methodological implications and challenges regarding the CIT approach during the entire research process (31). The computer program for QSR NVivo 10 for Windows was used for structuring and enhancing transparency of the analysis (33).

Findings

The presentation of findings encompasses two sections: themes of life conditions and main areas of critical incidents. However, both life conditions and critical incidents played a decisive role in the course of care and risk of readmission. Illustrative quotations support the findings. We distinguish between the participants by the acronyms A, B, C and D.

Life conditions

The participants described in various ways how they continuously struggled to balance life demands and the burden of illness and treatment in everyday life. The four overarching themes of life conditions that emerged from

Box 3. Dominant themes of life conditions and main areas of critical incidents

Life conditions

Ambiguity of ageing.
Living with the burden of illness.
Realisation of dependency.
Growing sense of vulnerability and mortality.

Critical incidents

Balancing demands and resources in everyday life.
Back home again – a period of recovery.
Care interaction.
Navigating within and between healthcare system(s).

the analyses were Ambiguity of ageing, Living with the burden of illness, Realisation of dependency, and Growing sense of vulnerability and mortality.

Ambiguity of ageing. This theme comprised reflections on the relationship between ageing, health and illness in everyday life. The participants held concurrent and sometimes contradictory views of ageing, negotiating with themselves whether the experiences of physical and cognitive decline related to the fact that they were ageing or associated with worsening of the disease. On one hand, they realised that ageing was leading to age-related limitations or deficits in health or well-being. On the other hand, they did not consider themselves as old. When comparing themselves with persons of similar age, they did not link the physical limitations and deficits with ageing.

I sometimes envy those who are hale and hearty...because many at 72 are, but it's just not like that for me...I am still sick ... I'm not getting over it. That's actually what you have to come to terms with... that this is how it is... (B).

Living with the burden of illness. This theme described how the participants experienced disease and illness as a condition of life. Being chronically ill and having multiple coexisting morbidities periodically brought them into situations where they felt unable to manage and regain control and in need of acute care. The burden of illness was physical as well as emotional. Due to worsening of existing morbidities and emerging disease, they described the previous year as a hard and demanding period of life:

I've been completely lostand then you get insecure....I'd like to have a picture of the disease and what is going on...because otherwise you just sit in front of the doctor and he asks and all...and what is your answer...that's difficult (C).

Realisation of dependency. This theme described how the participants depended on family, friends and neighbours for practical assistance and emotional support. All four participants experienced that they in particular relied on their spouse for practical and emotional support and in periods for personal care. A dependency experienced as annoying and frightening when significant others seemingly lacked the will or capacity to contribute with care and support:

It's like H [wife] doesn't want to help me. Not enough anyway...then I tell her: But H, I'm sick and I can't do anything. Then I need to go somewhere where someone wants to help me (A).

Growing sense of vulnerability and mortality. This theme comprised the participants' descriptions of helplessness and being exposed. On one hand, the participants realised mortality as a basic condition of life associated with

both ageing and illnesses. On the other hand, based on frequent or complicated hospitalisations and episodes of critical illness, they strongly perceived their own vulnerability. It differed how the participants managed their situation. While some participants struggled to regain control, other participants were grateful for the fact that they were still alive:

I've been on the other side once... where it was really close to the end ... I was on a ventilator and everything. And I really thought it was over, game over I've come to think about how well [insisting] we are treated in the system (B).

Critical incidents

Four main areas of critical incidents emerged from the analysis: Balancing demands and resources in everyday life, Back home again – a period of recovery, Care interaction, and Navigating within and between healthcare system(s). The critical incidents arose in everyday life, in face-to-face encounters between patients and healthcare providers and navigating within and between healthcare system(s) and illuminated a number of critical incidents interpreted as either supportive or demanding (Table 3).

Balancing demands and resources in everyday life. It was a major concern of the participants, how to manage their own situation without causing turmoil and being a burden to significant others, and having or achieving the skills and insight to react adequately if the situation escalated.

In most cases, critical incidents related to the relationship with significant others were perceived supportive and the participants recognised the workload they imposed upon close relatives and especially their spouse. A dependency that could lead to frustration and affect the situation negatively:

My wife is not that well either... last time... she got so frustrated... and it can't be right she suffers too... And she takes it out on me.... Then we start bickering. And that doesn't make my situation... better (A).

Back home again – a period of recovery. This main area of critical incidents related to the recent hospitalisation, the discharge process and being back home again. Clinical experiences that affected the recovery process negatively and being discharged with unsolved problems led to increased vulnerability and generalised risk in the post-discharge period.

I had to share a room [at the hospital] with someone else... and he was really sick... and I had to call for help... it resulted in me being placed in the hallway... I was in hospital for four days and I was just as sick when they sent me home as when I came in (A).

During the postdischarge period, the participants perceived themselves as extraordinarily exposed and in need of time to recover. They were astonished that the process of recovery was considerably longer than the acute care episode and that it took such a long time to recover and regain strength and well-being. Critical incidents that re-established daily routines and resumed personal care tasks were experienced as supportive. Peer support from friends and significant others was a source of encouragement and a valued aspect of being back home, giving the participants opportunity to look ahead and to focus on other things than merely illness and disease.

Care interaction. This main area focused communication and interaction between participants and healthcare providers. Frequently described incidents concerned communicative issues related to knowledge sharing and reciprocity. The following quote illustrates how lack of information could become the main reason for readmission:

I had trouble breathing and then I did the opposite of what I was supposed to... I turned up the oxygen.... it shocks me that I hadn't been told... and I'm sure that's the reason why I was admitted to the hospital again (B).

Similar examples associated with lack of information covered side effects to medication such as severe constipation due to prescribed morphine, and dizziness and risk of falling related to prescribed sleeping medication.

More critical incidents referred to patient involvement and the decision-making process. Living with multimorbidity and chronic conditions, the participants consulted a number of healthcare providers and they struggled to establish continuity in care and treatment and maintain an overview over the situation. Critical incidents were considered supportive when based on dialogue, mutual understanding and healthcare providers actively asking for patient experiences and needs related to health and treatment. Being actively involved in decisions regarding care and treatment was described as decisive to prevent readmission:

The doctor says, I have to reduce my dosage by 5 mg a week [phasing-out of steroids] and I can't, it's too much... and I'm afraid to sit here on this bedside again in a week... and that's a very unstable situation, and that's why I think they should listen more to what I'm saying (A).

In parallel, they described restricted information and healthcare providers, sticking to the rules and standards as inhibiting critical incidents:

I like to follow things myself ... because they take a bunch of blood samples... so I'd like a copy ... and see the results otherwise they [the staff] don't tell me anything. But I can't get that ... the doctor needs to approve it. That's the rules, they say... it can't be right... the analyses and results don't belong to them, they are mine as well (D).

Navigating within and between healthcare system(s). This main area concerned navigating between different sectors in the healthcare system, and the provider–provider coordination within and across sectors. It was perceived demanding if postdischarge care and treatment was not coordinated. As exemplified by the following quote, these participants did not experience the healthcare system as one, coherent system:

When you're out the door [recently discharged from hospital] then the door slams ...then they don't have anything to do with me anymore. But that's a mistake I think, because you need to be in the system until things are settled ...also what you need to do afterwards (A).

The participants described episodes where they themselves, their next of kin or the GP perceived that they needed acute care. Experiencing acute symptoms, feeling unsure and not having the resources and knowledge to manage adequately, repeat admission for acute care and treatment could be a relief and the best option. Some of the participants stressed that it could be a relief to hand over the responsibility to the system, that is to the GP or, as illustrated, to the hospital: "I'm actually quite confident that they [the hospital] are on top of it; me.. my health I mean" (D). In contrast, having to negotiate with healthcare providers, evaluating whether they were ill enough for acute hospital care, was experienced as unmanageable and demeaning. In worst case, it further increased the burden of illness and the exacerbation of the disease, and they ended up dialling the emergency telephone number (112). On other occasions, when trying to prevent further exacerbation of illness, they took shortcuts:

My experience is that if I don't feel well enough, I call the department and talk to one of the nurses....-I've done that several times...and they've helped me...then they can get a doctor to call me back if necessary (C).

Discussion

In this study, all participants suffered from chronic illness and multiple coexisting morbidities, and they were ongoing healthcare users. We found that critical incidents before, during and after admission closely linked with everyday life conditions and thereby affected the course of care in these older males.

Discussion of findings

The participants were community-dwelling males in their seventies; they were all married, and their wives had a key role as caregivers. It was striking how much the participants depended on the emotional as well as physical and practical support from spouse and adult children.

Obviously, in this study the possibility of support from next of kin was strongly associated with health and well-being in everyday life as well as the potential risk of readmission. Procter et al. (34) corresponding with Uhrenfeldt et al. (13) found that persons experiencing readmission often lived in complex circumstances, in which the patient/informal caregiver relationship was essential, which further supported this finding. Corresponding with other studies (14, 35), we found that especially spouses and adult children seemed to have an important role as informal caregivers, and the reciprocity in the relations between the older male and next of kin seemed decisively – positively as well as negatively – associated with the risk of a subsequent readmission. While in this study, critical incidents related to the behaviour of next of kin were described mainly as positive and supportive; Rosland et al. (36) found that family behaviour and communication patterns in families could also have a negative impact on health outcomes. Thus, for patients at risk of adverse health outcomes, the impact of patient/caregiver relationships should receive more attention from healthcare providers (34). However, involvement of and support for relatives to older medical patients are not mentioned as an objective in the Danish action plan for elderly medical patients (37).

Another finding was that the care process was considerably longer than the acute care episode. During the immediate postdischarge period, the participants felt highly exposed and they were astonished that recovering and regaining strength after being hospitalised took such a long time. Krumholz (4) has described the period immediately following discharge as a high-risk period with increased vulnerability in patients and a general risk of adverse health outcomes. In line with other studies (5, 38, 39), we found that critical incidents related to the former hospital admission as well as transitional care experiences had high impact on well-being and the process of recovery postdischarge. We also found that peer support and incidents that re-established daily routines and resumed personal care tasks were perceived as supportive.

In the current study, these older males described a range of critical incidents related to care interaction such as knowledge sharing, communication and coordination of care and treatment across care settings. Similar with other studies (2, 15, 40), we found multiple inhibitive critical incidents in which the care interaction was leading to increased risk of readmission, such as lack of discharge planning and not perceiving oneself fully recovered at discharge. Concurrently, we also found a range of supportive critical incidents such as anticipatory care, dialogue with healthcare providers on life conditions, being actively involved in decision-making, continuity in patient/provider interactions and coordinated plans for care and treatment across care settings.

This study illustrates a range of challenges and critical incidents when navigating the healthcare system. The participants realised that limited resources and high demand for hospital beds were putting both staff and systems under pressure (41). However, they described both supportive and demanding critical incidents related to navigating the healthcare system. Critical incidents were experienced as supportive if they eased the access to healthcare services, and if healthcare providers were sensitive to the life conditions and care needs of the individual. On the other hand, the complexity of healthcare services could further increase the burden of illness as well as the overall turmoil in daily life for the patient and next of kin (16, 35) and thereby further increased the risk of subsequent readmission.

Strengths and limitations

The participants in this study were ongoing healthcare users with care trajectories that intersected organisational boundaries within and between healthcare systems. Focusing on care experiences over time and in various settings, data were not restricted by single care episodes, limited to a specific hospital, department, GP or community care setting, which might increase the transferability of the findings.

While we conducted double interviews with the same individuals and in different patient contexts, comparable qualitative studies on this topic either conducted single bedside interviews (2, 15, 42) or semi-structured face-to-face or telephone interviews within 3 weeks of readmission (14). The use of critical incident chart made recollection of specific incidents easier during the second interview. In addition, double interviews provided an opportunity to derive an image of potential temporal sequencing of critical incidents. From the interviews, we also found more examples indicating that the meaning attached to the critical incidents and how they pertained to readmission depended on the life conditions of the individual and thus might change over time. Thus, the interviews formed both a reflective practice for the participants (21) and at the same time served as communicative validation process through member checking (19).

The adequacy of sample size in qualitative research has been widely discussed (19, 25, 43), and there are no fixed rules on the number of participants. Within the CIT literature, the analytical unit is the critical incidents and the question of sample size concerns the number of critical incidents rather than the number of participants (20, 21). The analysis of eight interviews with four information-rich cases (25) and a highly specified sample (43) contributed with 52 narratives of critical incidents. According to Schluter et al. (21), this is a sufficient quantity to ensure an adequate amount and sufficient quality of usable data to be gathered. The participants reported a

variety of supportive and demanding critical incidents related to experiences prior to admission, during admission as well as postdischarge and how they closely linked to everyday life conditions. Nevertheless, analyses of additional interviews might have contributed with further critical incidents (32) or they might as well have replicated earlier data. Therefore, due to the richness of the current material and the vulnerability of the study participants, we resisted from conducting further interviews with the purpose merely to assess whether theoretical saturation was reached (32).

Due to the inclusion criterions, the findings in this study were based exclusively on older married male patients' experiences of life conditions and critical incidents pertaining to readmission. Gender differences have been reported according to lifestyle-related risk factors and health behaviour (44, 45), health outcomes (6) and healthcare utilisation, showing that men have lower levels of primary healthcare use, but higher hospitalisation rates than women (8). Thus, gender differences may as well shape the experiences of life conditions and critical incidents pertaining to readmission among older persons. Therefore, the potential influence of gender differences on the experiences of readmission needs to be further explored.

In the current study, none of the male participants questioned if the current admission to hospital was preventable or inevitable and they did not perceive readmission as a critical incident. It seemed, however, that the participants paid attention to how critical incidents affected the demands and burden of disease and treatment in everyday life and the course of care over time, rather than whether they were readmitted. A recent study by Howard-Anderson et al. (17) found that readmitted patients in more occasions seemed more relieved than burdened upon readmission. Similarly, a study of older people receiving home health care found that older persons, their relatives and home care staff shared trust in and preferred hospital care (46). Although this was beyond the scope of this study, further knowledge of patient attitudes to hospital readmission and their arguments for seeking hospital care would be valuable in the search of knowledge targeting older people's hospital readmission.

Conclusion and clinical implications

This study contributes with new insight into the interconnectedness; dynamics and complexity of life conditions and critical incidents that over time and across diverse patient contexts and care settings affect the course of care. In a population of older married males, life conditions provided the background and preconditions of an ongoing process seeking to balance life demands and the burden of illness and treatment in everyday life. Critical incidents became tipping points,

either increasing or decreasing the life demands and resources of the participants. Hospital readmissions seem related to a complex web of interacting life conditions and critical incidents rather than growing age or specific illnesses.

To improve the course of care and potentially prevent hospital readmission in older persons, there is a need to involve older persons and their informal caregivers in decision-making regarding care arrangements that are supportive and meet the care needs of the individual.

Acknowledgements

The authors thank Mette Spliid Ludvigsen for discussions and comments on the manuscript. We also thank participants, staff and ward sisters for their contribution.

References

- Uhrenfeldt L, Aagaard H, Hall EO, Fegran L, Ludvigsen MS, Meyer G. A qualitative meta-synthesis of patients' experiences of intra- and inter-hospital transitions. *J Adv Nurs* 2013; 69: 1678–90.
- Dilworth S, Higgins I, Parker V. Feeling let down: an exploratory study of the experiences of older people who were readmitted to hospital following a recent discharge. *Contemp Nurse* 2012; 42: 280–8.
- Greysen SR, Hoi-Cheung D, Garcia V, Kessell E, Sarkar U, Goldman L, Schneidemann M, Critchfield J, Pierluissi E, Kushel M. "Missing Pieces"—functional, social, and environmental barriers to recovery for vulnerable older adults transitioning from hospital to home. *J Am Geriatr Soc* 2014; 62: 1556–61.
- Krumholz HM. Post-hospital syndrome—an acquired, transient condition of generalized risk. *N Engl J Med* 2013; 368: 100–2.
- Andreasen J, Lund H, Aadahl M, Sorensen EE. The experience of daily life of acutely admitted frail elderly patients one week after discharge from the hospital. *Int J Qual Stud Health Well-being* 2015; 10: Art 27370–11.
- Jeune B, Brønnum-Hansen H. Trends in health expectancy at age 65 for various health indicators, 1987–2005, Denmark. *Eur J Ageing* 2008; 5: 279–85.
- Beswick A, Gooberman-Hill R, Smith A, Wylde V, Ebrahim S. Maintaining independence in older people. *Rev Clin Gerontol* 2010; 20: 128–53.
- Juel K, Christensen K. Are men seeking medical advice too late? Contacts to general practitioners and hospital admissions in Denmark 2005. *J Public Health (Oxf)* 2007; 30: 111–3.
- Schnitker L, Martin-Khan M, Beattie E, Gray L. Negative health outcomes and adverse events in older people attending emergency departments: a systematic review. *Australas Emerg Nurs J* 2011; 14: 141–62.
- Garcia-Perez L, Linertova R, Lorenzo-Riera A, Vazquez-Diaz JR, Duque-Gonzalez B, Sarria-Santamera A. Risk factors for hospital readmissions in elderly patients: a systematic review. *QJM* 2011; 104: 639–51.
- Pedersen MK, Meyer G, Uhrenfeldt L. Risk factors for acute care hospital readmission in older persons in Western countries: a systematic review. *JBHI Database System Rev Implement Rep* 2017; 15: 454–85.
- Stein J, Ossman P, Viera A, Moore C, Brubaker BA, French J, Liles E. Was this readmission preventable? Qualitative study of patient and provider perceptions of readmissions. *South Med J* 2016; 109: 383–9.
- Uhrenfeldt L, Høybye MT. Care interaction adding challenges to old patients' well-being during surgical hospital treatment. *Int J Qual Stud Health Well-being* 2015; 10: 28830.
- Slatyer S, Toye C, Popescu A, Young J, Matthews A, Hill A, Williamson DJ. Early re-presentation to hospital after discharge from an acute medical unit: perspectives of older patients, their family caregivers and health professionals. *J Clin Nurs* 2013; 22: 445–55.
- Stephens C, Sackett N, Pierce R, Schopfer D, Schmajuk G, Moy N, Bachhuber M, Wallhagen MI, Lee SJ. Transitional care challenges of rehospitalized veterans: listening to patients and providers. *Popul Health Manag* 2013; 16: 326–31.
- Shippee ND, Shah ND, May CR, Mair FS, Montori VM. Cumulative complexity: a functional, patient-centered model of patient complexity can improve research and practice. *J Clin Epidemiol* 2012; 65: 1041–51.
- Howard-Anderson J, Busuttill A, Lonowski S, Vangala S, Afsar-manesh N. From discharge to readmission: understanding the process from the patient perspective. *J Hosp Med* 2016; 11: 407–12.
- Pedersen MK. Older persons at risk of hospital readmission: A mixed methods study. 2016;. <https://doi.org/10.5278/VBN.PHD.MED.00060>. Faculty of Medicine, Aalborg University, Aalborg, Denmark.
- Brinkmann S, Kvale S. *Interviews - Learning the Craft of Qualitative Research Interviewing*, 3rd edn. 2015, SAGE, California.
- Flanagan JC. The critical incident technique. *Psychol Bull* 1954; 51: 327–58.

Authors contributions

MKP conducted all interviews, was responsible for the transcripts and drafted the manuscript. All authors contributed to the manuscript with significant intellectual content and accepted the final manuscript.

Ethical approval

Registered under the North Denmark Region's joint notification of health research (ID 2008-58-0028).

Funding

We thank The Danish Nursing Research Foundation, Det Obelske Familiefond and The Danish Nurses Research Foundation for funding.

- 21 Schluter J, Seaton P, Chaboyer W. Critical incident technique: a user's guide for nurse researchers. *J Adv Nurs* 2008; 61: 107–14.
- 22 Kemppainen JK. The critical incident technique and nursing care quality research. *J Adv Nurs* 2000; 32: 1264–71.
- 23 Miles MB, Huberman AM. *Qualitative data analysis: an expanded sourcebook*, 2nd edn. 1994, SAGE, California.
- 24 Galvin K, Todres L. Kinds of well-being: a conceptual framework that provides direction for caring. *Int J Qual Stud Health Well-being* 2011; 6: 10362.
- 25 Sandelowski M. Sample size in qualitative research. *Res Nurs Health* 1995; 18: 179–83.
- 26 Åstedt-Kurki P, Heikkinen R. Two approaches to the study of experiences of health and old age: the thematic interview and the narrative method. *J Adv Nurs* 1994; 20: 418–21.
- 27 Harris R, Dyson E. Recruitment of frail older people to research: lessons learnt through experience. *J Adv Nurs* 2001; 36: 643–51.
- 28 Hancock K, Chenoweth L, Chang E. Challenges in conducting research with acutely ill hospitalized older patients. *Nurs Health Sci* 2003; 5: 253–9.
- 29 World Medical Association Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects. 2013; <http://www.wma.net/en/30publications/10policies/b3/index.html>. (last accessed 25 January 2018).
- 30 Ethical guidelines for nursing research in the Nordic countries. 2016; https://dsr.dk/sites/default/files/479/ssns_etiske_retningslinjer_0.pdf. (last accessed 25 January 2018).
- 31 Bradbury-Jones C, Tranter S. Inconsistent use of the critical incident technique in nursing research. *J Adv Nurs* 2008; 64: 399–407.
- 32 Sandelowski M. Qualitative analysis: what it is and how to begin. *Res Nurs Health* 1995; 18: 371–5.
- 33 Bazeley P, Jackson K. *Qualitative data analysis with NVivo*. 2013, Sage Publications Limited, California.
- 34 Procter S, Wilcockson J, Pearson P, Allgar V. Going home from hospital: the carer/patient dyad. *J Adv Nurs* 2001; 35: 206–17.
- 35 Bragstad LK, Kirkevold M, Foss C. The indispensable intermediaries: a qualitative study of informal caregivers' struggle to achieve influence at and after hospital discharge. *BMC Health Serv Res* 2014; 14: 331.
- 36 Rosland A, Heisler M, Piette JD. The impact of family behaviors and communication patterns on chronic illness outcomes: a systematic review. *J Behav Med* 2012; 35: 221–39.
- 37 Ministry of Health. Healthcare in Denmark – An Overview. 2017. <https://www.sum.dk/> (last accessed 25 January 2018).
- 38 Martinsen B, Harder I, Norlyk A. Being back home after intermediate care: the experience of older people. *Br J Community Nurs* 2015; 20: 422–8.
- 39 Rydeman I, Törnkvist L. Getting prepared for life at home in the discharge process—from the perspective of the older persons and their relatives. *Int J Older People Nurs* 2010; 5: 254–64.
- 40 Dossa A, Bokhour B, Hoenig H. Care transitions from the hospital to home for patients with mobility impairments: patient and family caregiver experiences. *Rehabil Nurs* 2012; 37: 277–85.
- 41 Connolly M, Grimshaw J, Dodd M, Cawthorne J, Hulme T, Everitt S, Tierny S, Deaton C. Systems and people under pressure: the discharge process in an acute hospital. *J Clin Nurs* 2009; 18: 549–58.
- 42 Jeffs L, Dhalla I, Cardoso R, Bell CM. The perspectives of patients, family members and healthcare professionals on readmissions: preventable or inevitable? *J Interprof Care* 2014; 28: 507–12.
- 43 Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies: guided by information power. *Qual Health Res* 2016; 26: 1753–60.
- 44 McVittie C, Willock J. “You can't fight windmills”: how older men do health, ill health, and masculinities. *Qual Health Res* 2006; 16: 788–801.
- 45 Oksuzyan A, Juel K, Vaupel JW, Christensen K. Men: good health and high mortality. Sex differences in health and aging. *Aging Clin Exp Res* 2008; 20: 91–102.
- 46 Hallgren J, Ernsth Bravell M, Dahl Aslan AK, Josephson I. In Hospital We Trust: Experiences of older peoples' decision to seek hospital care. *Geriatr Nurs* 2015; 36: 306–11.