Patients’ perspectives on everyday life after hip fracture: A longitudinal interview study

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ABSTRACT

Background: The duration of the recovery process after hip fracture varies considerably, and patients’ perspectives on everyday life may change over time. Our aim was to explore the impact of a hip fracture on elderly patients’ everyday life from their perspective and at different time points.

Methods: This was a longitudinal interview study. Twelve hip fracture patients of 65 years or older admitted to an orthogeriatric ward in Denmark were interviewed once, six patients were interviewed twice, and four patients were interviewed on all four occasions (in-hospital and at two to six weeks, five to six months, and twelve months after the fracture). The interviews were analysed using abductive reasoning.

Results: The findings are presented per time point. During admission, patients expressed concern for their future, and pain and the fear of falling were especially pervasive topics. After discharge the fracture itself had little prominence in the patients’ perspectives as activities of everyday life were used as measures of the recovery progress.

Conclusions: The patients’ narratives at different time points revealed striking similarities across individuals. Despite pain and worry for the future during admission, the patients’ perspectives switched towards their ability to handle practical issues in everyday life and enjoy social activities, and their view on quality of life increased when their dependency on help decreased.

1. Background

Hip fracture is the most common type of fragility fracture to cause hospital admission for older people (Svedbom et al., 2013) and may substantially affect a person’s medium-to long-term abilities, functioning, health, accommodation, and quality of life (Dyer et al., 2016). At the most, 60% of patients regain their prior level of functioning (Bertram et al., 2011); the majority within six months of discharge, although the time to recovery of everyday life functioning ranges from four to twelve months (Magaziner et al., 2009; Vochteloo et al., 2013).

The quantification of outcomes and consequences offers important knowledge about the general population of elderly hip fracture patients. However, to gain an understanding of the patients’ perspectives of recovery in everyday life functioning we need to explore what matters to hip fracture patients over time.

A synthesis of the qualitative data gleaned from a range of studies of patient perspectives from admission to several years after hip fracture published since year 2000 indicated that hip fracture patients generally consider their symptoms and complications, physical health, mental health, social relationships, and personal goals as important aspects of their care trajectory (Abrahamsen and Nørgaard, 2021). However, the synthesis offers no insight into the time at which the convalescent patients had been studied or patient perspectives most prominent at different time points during the care trajectory (Abrahamsen and Nørgaard, 2021). A longitudinal study interviewing hip fracture patient four times within 18 months was conducted, exploring meaningfulness of being active and how this changes over time (Rasmussen et al., 2018, 2020). However, with the mentioned variation in time to recovery of everyday life (Magaziner et al., 2000; Vochteloo et al., 2013) knowledge of patients’ perspectives on recovery over time is lacking. We therefore
aimed to explore the impact of a hip fracture on elderly patients’ everyday life from their perspective and at different time points.

2. Methods

This study was designed as a longitudinal interview study. As our intention was to explore the patients’ perspectives, a qualitative design was applied, generating the data from semi-structured interviews.

2.1. Recruitment strategy and informants

We planned to interview 10–12 patients or until data saturation occurred (Guest et al., 2006). Purposive convenience sampling was used in recruiting to ensure a sample of nuanced patient perspectives (Patton, 1990). Between April 6 and June 15 2018 all hip fracture patients of 65 years or older admitted to an orthogeriatric ward in a regional hospital in Denmark were assessed for eligibility. A research assistant assessed eligibility by interviewing the nursing staff. Hip fracture patients undergoing surgery, and of different gender, marital status and pre-fracture mobility were of interest. Ability to understand and speak Danish was also required.

2.2. Data collection

A research assistant approached eligible patients during admission one to three days after surgery to request their participation. We planned to interview each patient four times during the year following their hip fracture to get a sense of their perspectives on everyday life in the context of both the acute phase (hospitalization and surgical treatment) and the following rehabilitation and recovery phase. The first interview was performed face-to-face during admission while subsequent interviews were carried out by telephone. The in-hospital interview was completed in a single patient room between one day and eleven days after the hip fracture to ensure that the encounters were experienced as respectful and manageable, as the fracture was very recent and the patients were still dependent on care. The times of the three telephone interviews were at two to six weeks, at five to six months, and at twelve months after the initial interview. The specific choice of interview times was based on an evaluation times found important during care trajectory (Magaziner et al., 2000; Vochteloo et al., 2013). Telephone interviewing was preferred as it allowed the older and frail informants to stay at home (Novick, 2008) and avoided exhausting them by in-person interviewing.

The interviews were conducted by two experienced research assistants, one of whom had a health professional background (nurse, MHS), while the other did not (MScPH). The former conducted the in-hospital interview and that the interview(s) attending a one-day work seminar to interpret underlying patterns including patients recurring and changing perspectives over time. The selection of quotes was discussed and selected using the audio-recorded interviews.

Abductive reasoning is a pragmatic approach that allows the researcher to take note of situations that may generate a breach of understanding. When our present understanding is breached a new understanding happens. This research approach is particularly suitable for experienced professionals within the field as it allows the incorporation of prior understandings for utilization in the data analysis.

The included hip fracture patients did not provide feedback on the findings.

2.4. Ethics

When approaching the hip fracture patients at the ward the research assistants explained the purpose of the study and the repeated interview sessions. The patients were further informed that the interviews were confidential, that participation was voluntary, and that they could withdraw at any time without consequences. All informants signed a statement of consent. In the following telephone interviews, the informants were offered a brief re-cap of the information to ensure their continued understanding and consent to participation. If information was gained that should be acted upon the research assistants were encouraged to contact the first author (CA) who was in direct contact with the clinical manager.

The study was registered with the ‘Record of data process of Registry of Southern Denmark’ (Journal no. 17/41220). Data were stored on a secure server only available to the researchers. According to Danish legislation no further approval was needed.

3. Results

3.1. Population

Twelve hip fracture patients were interviewed at the first time point, six patients (50%) participated in two interviews, while four patients were interviewed on all four occasions (33%) (Table 1). All interviews are included in the analysis. Two patients (17%) died before completing the interview sequence, one after the second, the other after the third interview. The remaining informants did not respond to repeated telephone calls on different days and at different times of day.

Of the twelve informants, ten were female and two were male, their ages varying from 65 to 103 years of age (mean age 85.3). Five participants were married/co-habiting and eleven lived in their own homes before and after the hip fracture. Before the fracture ten participants were able to walk around inside and outside their home (Table 2).
showering, shopping, cooking, and cleaning. Walking aids and support restrictions in their walking distance and activities of everyday life such as walking in the garden or the supermarket when tripping over uneven surfaces. The falls were all sudden and unexpected and had caused immediate severe pain.

3.3. The fall: hip fracture occurred

The falls typically occurred in the home while the patients were performing activities of everyday life such as ironing, passing doorsteps, or climbing staircases. Falls also occurred outside the home, in the garden or the supermarket when tripping over uneven surfaces. The falls were all sudden and unexpected and had caused immediate severe pain.

Table 2

Patient characteristics and interview participation.

<table>
<thead>
<tr>
<th>ID</th>
<th>Age</th>
<th>Gender</th>
<th>Marital status</th>
<th>Residence before hip fracture</th>
<th>Mobility before hip fracture in relation to the home</th>
<th>Residence after hip fracture</th>
<th>Interview (Time-point)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>82</td>
<td>F</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>72</td>
<td>F</td>
<td>W</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>83</td>
<td>M</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>86</td>
<td>F</td>
<td>W</td>
<td>Own home</td>
<td>Walking inside</td>
<td>Own home</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
<td>M</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>97</td>
<td>F</td>
<td>W</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>82</td>
<td>F</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>65</td>
<td>F</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>95</td>
<td>F</td>
<td>W</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
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<tr>
<td>10</td>
<td>103</td>
<td>F</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>82</td>
<td>F</td>
<td>M</td>
<td>Own home</td>
<td>Walking inside and outside</td>
<td>Own home</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>96</td>
<td>F</td>
<td>W</td>
<td>Sheltered housing</td>
<td>Walking inside</td>
<td>Sheltered housing</td>
<td></td>
</tr>
</tbody>
</table>

F = female; M = male. Married/co-habiting; W = Widow/living alone.

3.2. Findings

The findings are presented per time point with a focus on the entire patient trajectory. Quotations are used to support and illustrate the findings.

3.3. The fall: hip fracture occurred

The falls typically occurred in the home while the patients were performing activities of everyday life such as ironing, passing doorsteps, or climbing staircases. Falls also occurred outside the home, in the garden or the supermarket when tripping over uneven surfaces. The falls were all sudden and unexpected and had caused immediate severe pain.

3.4. Briefly after the fall: during admission

Almost all patients voiced a sense of physical restriction and concern about their future by asking, “Will I ever be able to walk again?” (ID 6), “Will I ever be in control of the fracture?” (ID 5), or “Will I ever be able to control my everyday life again?” (ID 11). The patients generally worried about the transition to home (discharge), how they would manage at home, and if they would ever be able to regain their physical functioning.

The participants felt restricted by pain during the admission when performing activities of everyday life (e.g., getting in and out of bed, going to the toilet, bathing). Moreover, fear of falling was a great concern for many, especially when going to the toilet at night (ID 7).

When the time for discharge approached, concerns were voiced about whether sufficient help at home would be available for them to manage everyday life. Asking themselves, “Will I be able to get the support that I need?” (ID 9), they worried about the help they would need from their spouse, family, neighbours or friends, and the care provided by the district nurse and/or home care with respect to, for example, personal care, grocery shopping, cleaning, cooking, gardening, and using public transportation. The availability of different walking aids and rehabilitation was also a concern when they considered how they could return to a life as independent as possible. At this time quality of life was considered too big a question as they felt restricted and uncertain about practicalities.

3.5. Briefly after discharge: in the home

Most of the patients said they found it “very hard to return home” (ID 6). Some were able to return to their normal personal care regime a few weeks after discharge although they described reductions and restrictions in their walking distance and activities of everyday life such as showering, shopping, cooking, and cleaning. Walking aids and support from caregivers and home care were necessary for managing their everyday life. Five of the six patients interviewed after discharge reported they had not left their home since discharge as their mobility was reduced and they still worried about falling: “My leg gets tired in the middle of the day […] and the stairs prevent me from getting out” (ID 8). This caused some of the patients to feel alone, while others enjoyed being able to rely on their social relationships. As one patient said, “my friends have moved the bridge club to my place, and they even bring the coffee” (ID 9). Even though most expressed a sense of a turn for the better, they reported extreme tiredness and fatigue. They still experienced pain (primarily related to physical activities and training) and swelling of their lower legs. Some mentioned struggling with an uneven leg length after the fracture. All of the above were factors that led to a continuous need for training in order to improve. Everyone expressed their intent to manage everyday life without being overly dependent on help from family or friends.

3.6. Five to six months after the fracture: continuous improvement

Five to six months after the hip fracture the informants’ ability to perform different activities of everyday life had increased and the need for support from caregivers and home care decreased accordingly. All four patients interviewed said that they could perform daily chores in the home and walk the stairs as they did before the fracture, but they still experienced them as troublesome. “It’s become a bit more difficult to manage so much myself” (ID 9), said one. Those who had previously been able to go for walks outside, manage their shopping and gardening and enjoy social events regained their pre-fracture abilities by using a walker. Yet using public transport or biking remained outside of reach, or they did not dare it anymore as they feared falling again. As one said, “getting off the bike makes me nervous of falling again” (ID 11). One patient living in sheltered accommodation who had a relatively low pre-fracture level of functioning regained most of her ability to perform everyday life activities, although she continued to depend on support from family and home care services for getting dressed, shopping and dishwashing. Yet, she did not lose courage and demonstrated a good sense of humour, saying, “I don’t get out much, yet I don’t get bored, and as long as I can read and solve my crossword puzzle, I’m fine” (ID 12). Most patients continued to experience pain and some swelling. Those who had mentioned uneven leg length briefly after discharge reported problems with limping. Problems with sleeping and tiredness also continued to challenge their ability to perform everyday activities.

3.7. Twelve months after the fracture: taking stock

One year later most of the patients had regained their previous level of physical functioning and were able to perform almost all usual
activities of everyday life except for some outdoor activities such as taking the bus or biking because they were ‘afraid of falling’ (ID 7). One participant nevertheless said, ‘I can do everything that I want’ (ID 11).

Asked about quality of life at the end of each interview, all of the participants insisted, ‘I want to be able to take care of myself, to walk normally and keep my home the way I used to before the fracture’. Throughout the final interviews we saw fatigue and worry replaced by hope and optimism while another strategy was also evident in the patients’ lowered ambitions and adapting to their new conditions.

Many patients furthermore considered it as signs of a high quality of life that they could enjoy close relationships with family and friends and were able to attend social events such as card-playing or choir-singing. ‘I play bridge during the winter […] and I’ve got my family, and that means a lot’ (ID 9). Reading books, listening to music, solving crossword puzzles, and knitting were also highly appreciated activities, which were reported by all informants.

Physical discomfort had decreased one year following the hip fracture and the participants expressed qualified optimism about the future as they regained control over their activities of everyday life and increased their independence.

4. Discussion

Across hip fracture patients’ narratives over time we found striking similarities. Overall, the hip fracture patients interviewed for our study gave little prominence to the hip and the fracture itself. Rather, they referred to activities of everyday life and the needed level of support as indications of the progress of their rehabilitation and recovery towards their lives before the hip fracture.

While the patients experienced difficulties managing their personal care during admission, five out of six patients only needed help with showering briefly after discharge. The remaining patient already received home care with dressing and this continued after the fracture had occurred.

In the interviews performed soon after discharge all the patients expressed a need for help with shopping, cooking and cleaning. None of them had used the stairs or left the home. Our findings corroborate previous findings reporting that their respondents continued to be challenged three to five weeks after their hip fracture in performing activities such as getting out of bed, showering and walking freely to clean, do the laundry, shopping or walking outdoors (Segevall et al., 2019; Zidén et al., 2008).

Five to six months after the fracture our patients could keep their homes and walk the stairs as they did before the fracture. By using a walker they were also able to go for a walk outside, do their shopping and gardening and enjoy social events as they had done before.

Three out of four patients regained their previous level of physical functioning and were able to perform almost all usual activities of everyday life after six months. After one year they were more confident managing their everyday life except for bicycling and taking the bus. Such a detailed description of activities of everyday life has, to our knowledge, not previously been given in the literature. While other studies have outlined the consequences for everyday life and described restricted activity after four and twelve months no specific description of activities has been given (Gesar et al., 2017; Zidén et al., 2010).

Pain as a consequence of the hip fracture was a pervasive topic for some hip fracture patients in all interviews, which corroborates the findings of previous studies using interviewing at different time points (Abrahamsen and Nørgaard, 2021).

Our informants’ expression of strong concern about the future mirrors previous findings which reported that while still hospitalized their study subjects worried about their future ability to walk, managing at home and the possibility of getting support (Olsson et al., 2007). Our patients’ concerns about the future continued for between two weeks and four months after discharge as previously reported (Zidén et al., 2008; Bruun-Olsen et al., 2018). When we interviewed our patients at five to six weeks and at twelve months post-fracture their concerns had been replaced by belief in the future and hope of regaining the ability to manage everyday life although in a modified manner. As previous studies have found, the patients gradually regained control while lowering their expectations and adjusting to their new circumstances (Sims-Gould et al., 2017; Zidén et al., 2010). The fear of falling was a persistent concern from the time of admission until twelve months after hip fracture; a finding that aligns with previous findings (Gesar et al., 2017; McMillan et al., 2012, 2014; Zidén et al., 2010; Zidén et al., 2008).

According to previous studies, social support to manage everyday life is crucial to all patients at all time points (Gesar et al., 2017; Segevall et al., 2019; Sims-Gould et al., 2017; Young and Resnick, 2009), whether in terms of support for activities of everyday life from their spouse, children, friends or neighbours, or support from home care. What appeared as new knowledge in our study was how the patients seemed to use their diminishing need of support as a measure of progress. In contrast to previous studies our study did not investigate aspects concerning patients’ worry about inconveniencing or burdening their family (Gesar et al., 2017; McMillan et al., 2012; Wykes et al., 2009; Zidén et al., 2010).

Another frequently mentioned aspect throughout the interviews was the subjects’ wish to return to a normal social life with opportunity to attend various social events. As previous studies have shown, patients’ greatest aim is to regain control and independence regardless of time point (Archibald, 2003; Gesar et al., 2017; McMillan et al., 2012; Segevall et al., 2019; Young and Resnick, 2009). The hope for a return to normality (Bruun-Olsen et al., 2018; McMillan et al., 2012, 2014) was also expressed by our informants. However, hip fracture patients need to adjust to the new situation.

While the majority of our findings corroborate those of previous studies of the patients’ perspectives after hip fracture, earlier studies have either collected their data at one time point (Bruun-Olsen et al., 2018; Gesar et al., 2017; McMillan et al., 2012, 2014; Segevall et al., 2019; Young and Resnick, 2009; Zidén et al., 2010; Zidén et al., 2008) or have presented a mix of perspectives from admission until several years after the event (Healee et al., 2017). Only a few studies gathered data at two different time points, yet their analyses failed to distinguish between the times of data harvest (Jensen et al., 2017; Sims-Gould et al., 2017). Recently, a longitudinal study found that meaningfulness of being active during one and a half year after a hip fracture changes from primarily feeling dignified in a sense of one’s own capability towards also encompassing a feeling of being content and grateful (Rasmussen, 2018). Here, we provide a longitudinal study showing elderly hip fracture patients’ changes in activities of daily living and level of support needed as an indication of progress of their rehabilitation.

4.1. Strengths and weaknesses

Getting hip fracture patients to participate in a longitudinal interview study is challenging. The patients approached were either ineligible, unable, or had no interest in participating. They felt physically unwell or fatigued or appeared to have dementia, were confused or expressed apathy. Some patients later dropped out; we only know of two who died during the data collection period. The reasons for the remaining six dropouts are unknown.

Our data on patients’ experiences were gathered in a healthy and well-functioning group of elderly hip fracture patients who lived in their own or a sheltered home before and after the hip fracture. They were all physically active before the fracture occurred. As our findings are based exclusively on the perspectives expressed by the informants, we are aware that less well-functioning hip fracture patients’ perspectives and experiences may differ from those presented here.

Although data saturation in this study, with only four hip fracture patients completing all four interviews, may be challenged, we have identified several shared elements and themes among the informants and we see these reflected in other studies and reviews concerning hip fracture patients’ perspectives after hip fracture.
fracture patients’ perspectives (Abrahamsen and Nørgaard, 2021). Furthermore, to enhance credibility and confirmability (and thus trustworthiness), both researchers conducted the analysis and continuously discussed and validated the findings. Pre-understanding of hip fracture patients’ perspectives was incorporated as supporting knowledge.

The use of telephone interviewing after discharge, may have limited the duration of interviews and introduced a distance that prevented in-depth conversations (Novick, 2008). However, reduced interview duration has been found to not necessarily affect the nature and depth of responses (Sturges and Hanrahan, 2004); hence we assume that the consequences were negligible (Irvine, 2011). Older people may be especially hesitant towards telephone interviews and unwilling to respond. However, repeated telephone calls were made without a response.

Our findings contribute to a more patient-centred healthcare system by revealing the patients’ perspectives, including their concerns, needs and wishes at different points of time following hip fracture.

5. Conclusions

The elderly hip fracture patients’ narratives at different time points revealed striking similarities across individuals. Despite pain and worry for the future during admission, the patients’ perspectives switched towards their ability to handle practical issues in everyday life and enjoy social activities, and their view on quality of life increased when their dependency on help decreased. They referred to changes in activities of everyday life and the needed level of support as indications of the progress of their rehabilitation and recovery towards their lives before the hip fracture.

Ethical statement

The study was registered with the ‘Record of data process of Registry of Southern Denmark’ (Journal no. 17/41220). Data were stored in a secure server only available for the researchers. According to Danish legislation, no further approval was needed.

Role of funding source

No funding was obtained for this study.

Declaration of competing interest

The authors declare that they have no competing interests.

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