Caregivers' Experience Following Hip Fracture in Elderly Patients: Strengthening the Delivery of Integrated Nursing Care

Sheena Ramazanu  
Master of Clinical Research Graduate:  
The University of Manchester  
Singapore

Dr Jane Griffiths  
Senior Lecturer :  
The University of Manchester  
Oxford Road, Manchester: United Kingdom

Abstract—In Singapore, hip fracture incidences in elderly women are the highest amongst all Asian countries. Hip fracture is an unexpected life event for both patients and their family carers. Limited studies were conducted in Singapore to find out about family carers experiences in taking care of elderly patients with hip fracture. The aim of this phenomenology study is to understand caregivers' experiences and support needs when rendering care to older adults with hip fracture during three distinct phases: acute hospitalization stay, in the community hospital and at home setting.

Keywords—Family Caregivers, Hip Fracture, Integrated Care, Singapore

I. INTRODUCTION

Hip fracture is an acute and unexpected life event for patients and their family members, in particular when they assume caregiving role or the first time without much preparation (Nahm et al., 2012). Caregivers’ experiences and support needs are unknown in Singapore as patient transits quickly from an acute hospital to a community hospital and then to home.

Siddiqui et al. (2010) conducted a quantitative prospective cohort study to determine the stress levels amongst caregivers of hip fracture patients in Singapore during admission and six months post-discharge. The study results revealed that caregivers were significantly stressed due to financial strains (Siddiqui et al., 2010). One limitation of the study is that caregivers were not able to express their experiences and support needs related to patient care during care transition phases.

Despite the importance of transitional care services which describes the movement of patients between various healthcare settings and providers, limited research has been conducted to date in Singapore to inform health policy and clinical practice (Toscan et al., 2012). This research study is particularly important as it helps researchers, healthcare providers and policy makers understand caregivers experiences when patient with hip fracture transits from acute hospital, community hospital and then to home.

II. LITERATURE REVIEW

A total of 15 articles were reviewed and critically appraised. Relevant articles were also identified via reference list and hand searching. Articles over the last 10 years were included, from years 2006-2016 to provide up to date information about the research topic (Aveyard, 2010).

A. Caregivers experiences while caring for patients with hip fracture

Both qualitative (Hedman et al., 2011) and quantitative (Siddiqui et al., 2010) studies consistently reported that caregivers felt emotionally distressed, tired and lacked sleep, frustrated while caring for patients with hip fracture. Several studies aimed to look into carer’s experiences post-discharge, instead of capturing their experiences holistically during different transitional phases. Hedman et al. (2011) pointed out that carers of cognitively impaired patients were emotionally stressed when patients do not recover as expected upon discharge. This study was particularly commendable as it included the views of carers who took care of cognitively impaired patients. They may face unique challenges related to caregiving which are usually unexplored.

B. Caregivers coping processes while caring for patients who are recovering from hip fracture

Several caregivers required support such as instructions about life after patients’ discharge, how to render care for patients at home (Shyu et al., 2010, Aliva et al., 2012), how to help patients lead a normal life with their disability, an opportunity to ask questions via telephone or home visits (Wu et al., 2013), and mental care post-discharge from the hospital setting (Kondo et al., 2014; Liu et al., 2015; Shyu et al., 2011).

C. Caregivers coping processes while caring for patients who are recovering from hip fracture

Li & Shyu (2007) study reported on family caregivers
coping processes post discharge with Roy adaptation model. Li & Shyu (2007) indicated that the three coping strategies adopted by family caregivers were instrumental, expressive and distancing based on the internal (family composition, autonomy, power distribution) and external environmental factors (health insurance and cultural factors such as filial piety).

Li & Shyu (2007) is a culturally relevant study as it explored Asian values on the sense of filial piety in Taiwan and how caregivers were devoted to their elderly parents (Dai & Diamond, 1998). Li & Shyu (2007) findings are limited as participants were followed up to only three months post discharge. Regardless, little is known about coping processes adopted by family caregivers who took care of patients with hip fracture at home and study did benefit healthcare professionals to develop culturally relevant discharge plans (Li & Shyu, 2007).

To summarise, a comprehensive literature review has revealed a paucity of knowledge surrounding Singaporean caregivers’ experiences and support needs when caring for a patient with hip fracture in the transitional phases from acute hospital, community hospitals and then at home. Several studies excluded caregivers who rendered care to cognitively impaired hip fracture patients.

### III. METHODS

This study is underpinned by Husserl’s descriptive phenomenology. Purposive sampling was performed and semi-structured interviews were conducted with study participants. A total of 10 caregivers were recruited in an acute hospital in Singapore and interviewed between the months of December 2015 and March 2016, till data saturation was reached. Four caregivers were females and six were males. The inclusion criteria for the study includes, (a) participants aged 21 years and above, (b) Singaporean or Permanent Resident, (c) able to converse in Basic English language. The exclusion criteria are as follows, (a) family caregiver of patient with hip fracture on conservative management, (b) family carer of hip fracture patients who are critically ill or died post operatively; (c) family caregiver of patient who has underwent a hip fracture surgical intervention.

Favourable ethical approval was granted to conduct the study from University of Manchester Research Ethics Committee and NHG Domain Specific Review Board (DSRB) Singapore (National Healthcare Group, 2015).

The first interview was conducted between January and February 2016 in one of the acute hospitals in Singapore. At the beginning of the interview, participants’ demographic information such as age, gender, ethnicity, marital status, employment status and caregiver support for primary caregiver was gathered. The second interview took place between February and March 2016 after patients were discharged from community hospital to home. The date of patients’ discharge from acute hospital to community hospital was documented. Patients’ caregivers were contacted one month after patients’ transit to the community hospital.

### IV. DATA ANALYSIS

Colaizzi’s (1978) phenomenological method was used as a framework to guide data analysis. Table I depicts information on how Colaizzi’s (1978) six stages phenomenological method was applied to research study.

#### Table I. Stages in Colaizzi’s (1978) phenomenological method

<table>
<thead>
<tr>
<th>Stages</th>
<th>Details on data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1: Attaining sense of transcripts</td>
<td>- Listen to all audio recordings and read individual transcripts</td>
</tr>
<tr>
<td></td>
<td>- Writing a reflective diary to aid in bracketing and reflection</td>
</tr>
<tr>
<td></td>
<td>- Data transcription</td>
</tr>
<tr>
<td>Stage 2: Extract significant statements</td>
<td>- Read the transcripts and identify significant statements</td>
</tr>
<tr>
<td>Stage 3: Formulate meanings</td>
<td>- Each significant statement was studied carefully, bracketing was achieved and meanings for statements were formulated</td>
</tr>
<tr>
<td>Stage 4: Organizing themes from formulated meanings</td>
<td>- All formulated meanings were arranged into themes</td>
</tr>
<tr>
<td></td>
<td>- Clustered and emergent themes were sent to research supervisor for validation</td>
</tr>
<tr>
<td>Stage 5: Exhaustive description of the phenomenon</td>
<td>- Exhaustive description was incorporated from the emerged themes</td>
</tr>
<tr>
<td>Stage 6: Description of the structure of the phenomenon</td>
<td>- Main essences emerged in themes were summarised</td>
</tr>
</tbody>
</table>

### V. RESULTS

#### Acute Hospitalisation Phase

(a) Family caregiver’s reactions to hip fracture and coping strategies

Several caregivers were ‘worried’ when patient had sustained a hip fracture injury. Caregivers overcame this phase through various coping strategies:

“’We were relieved that we know what happened to her and there is a competent medical team here that could do something for us. Of course we were quite worried initially. But after knowing that it was a hip fracture and there is a good team here, we are quite comfortable.’” (Caregiver5)

“’Worry yes, but somehow or rather at her age, this kind of fall is inevitable. I am mentally prepared that one day she will fall’” (Caregiver 7)

(b) Recovery through surgery means ‘meaningful life’

Surgery for the patient was a hopeful measure that the patient would recover and return to pre-morbid status. Caregivers hoped that post-operatively patient would not be bedridden, could still ambulate and lead a meaningful life as usual:
Community Hospitalisation Phase

(a) Reassurance through community hospital transfer

For several caregivers, the transfer of the patient to the community hospital served as a rehabilitation opportunity where patients could be cared and taught to adapt back to the community:

“Shes going to the community hospital. There’s no one to look after her. She cannot move, need some specialists to exercise and give food to her. When she gets better, she can come back from the community hospital.” (Caregiver 6)

“I felt also happy that my mother-in-law was able to go for the rehab. Whether if it is a long or short stay, I believe that if she cooperates, she can recover and return home” (Caregiver 1)

(b) Patient’s fear of falling again

Some patients had psychological pain over the surgical site thus they were fearful to move. They performed the activities in the manner they preferred instead of the way advised by their healthcare professionals:

“My mother is very stubborn, she likes everything to be done her way then she will be happy. In the community hospital, she was not exercising” (Caregiver 8)

“I keep telling her she needs to move...after a lot of persuasion she overcome her fear and helps herself with movement whenever I say so” (Caregiver 1)

(c) Patient-centric patient and family education

The lack of patient focused education for caregivers made the caregiving task tough especially during the first week post discharge:

“No one assisted me in changing my mother-in-law’s diaper. I learned how to change her diaper on my own. No one taught me how to do, because they were busy. We will be showering her at home because she can sit, but over there they only taught us how to sponge. At home I use the commode chair.” (Caregiver 1)

Home-Care Phase

(a) Patient’s cognitive status: a determinant for influencing levels of instrumental and supervisory roles at home

Caregivers typically emphasized on being ‘stressed’, ‘depressed’ and ‘tired’ in taking care of cognitively declined patients who went through hip fracture surgery. This group of patients were highly dependent on their caregivers for support with their basic Activity of Daily Living (ADLs):

“The feeling is very stressful...I feel depressed too... even to bathe is so hard... she doesn’t sleep at night, she does sleep talk...she is taking her medication for depression and sleep, she still cannot sleep... I am getting sick and losing my appetite.” (Caregiver 1)

(b) Round the clock care and consequences on caregivers’ health

Caregivers who provided round the clock care to patients at home had limited rest. Some caregivers who have domestic helpers considered themselves ‘fortunate’ as they took turns to care:

“Very tired and stressful. She refuses to sleep especially at midnight. She has actually turned bad ever since her discharge from the hospital....My domestic helper will be taking care of her during the day and after 8pm it is my duty...Luckily I have a good helper...” (Caregiver 8)

“Sometimes when I asked her grandson to take care of her, he just slept. I cannot cope alone. I need someone to help me...I have no one to help me. When I am really pissed off with her right, I will scold my son. Even my youngest son got tired of her and asked me how long more will she stay. I was the one who suggested her to stay in Nursing Home. Even if we hire a maid, the maid may even go back to the agency because she won’t get enough rest.” (Caregiver 1)

(C) Caregivers as watchful guardian at night to prevent another fall incident

Some caregivers participated in high levels of supervisory care through sacrificing their own sleep to watch over patients at night to prevent another fall incident:

“I always have to watch over her at night. If she falls again, that’s it! I will not take my eyes off her” (Caregiver 1)

“Nowadays my helper will be keeping a close watch on her. We are really afraid that she will fall again and suffer from a stroke.” (Caregiver 8)
VI. DISCUSSION

When caregivers were informed that their elderly family member had sustained a hip fracture, several caregivers felt worried (Nahm, 2010). The reasons for feeling worried were similar to the current study results, as they were apprehensive about the future: the type of care and level of support needed for the elderly family member (Nahm, 2010). However, as pointed out by Siddiqui et al. (2010), this significant stress is caused by the sudden acute situation and it is usually short term. Family caregivers were able to cope it effectively with good family support and through the trust established with healthcare professionals.

In the current study, some caregivers coped by believing that falls is a natural part of ageing and eventually every elderly would go through that phase. Some caregivers were used to seeing elderly persons falling down a couple of times at home. Health education on fall prevention strategies to both caregivers and patient is thereby important. This would enable them to understand that falls are not natural part of ageing and the number of falls among elderly could be reduced (Ziden et al., 2008).

Several caregivers believed that with a surgical intervention, patients would be back to their pre-morbid status where they are able to ambulate, perform activity of daily living and lead a meaningful life without being confined to the bed. According to a study by Pi-Chu & Su-Yu (2004), 75% of patients were able to walk, climb the stairs and care for themselves a year after hip fracture diagnosis.

As for instrumental activity of daily living (IADL), 73.8% of patients could perform housework, shopping, walk outdoors before fracture. However, one year after fracture incident, only 58.2% of patients could perform IADL independently (Pi-Chu & Su-Yu, 2004).

The findings indicate that majority of the elderly patients are able to regain their pre-functional status and lead a meaningful life as usual. However, some elderly patients go through functional decline over a period of time. Therefore, early rehabilitation services such as physiotherapist and occupational therapist sessions are necessary to enable elderly patients to recover their functional ability (National Health Services, 2014).

Some caregivers felt stressed even though patient was in a community hospital for rehabilitation. Caregivers anticipated that caregiving would be a challenging task upon discharge and were concerned about what they could do to ensure safety of patient at home environment. Caregivers’ concerns were relevant as in some studies such as Kondo et al. (2014) mentioned that a number of patients were anxious to ambulate, had difficulties in taking care of themselves, reduced social activities, had physical symptoms like pain, oedema, tiredness and cognitive impairment that resulted in caregivers experiencing high levels of stress upon discharge from rehabilitation unit.

Aged care transitional services also known as home care services could be introduced to caregivers to let them know that such services exists and even upon discharge, they are not alone, doctors and nurses do make home visits and would support them with resources as and when necessary (Agency for Integrated Care, Singapore, 2016).

In the current study, some caregivers felt that patient education that was rendered did not meet their needs. This translated to caregivers facing difficulty in performing caregiving task once patient was discharged home. Singapore comprises of residents who speak different languages such as Chinese, Malay, and Tamil besides English language. Hence it is particularly important to assess caregiver’s preferred language, education level, baseline knowledge on what caregivers already knew about the subject matter that is being addressed (Johansson et al., 2003).

In addition to that, some patients did not overcome the fear of falling even after being discharged home. They refused to ambulate and thus made caregiving task a challenging one. In a systematic review by Visschedijk et al. (2010), it was indicated that about 50% or more patients had fear of falling that was related to several negative rehabilitation outcomes such as mobility loss, institutionalization, and mortality. One limitation of this review is that the determinant for patient’s fear of fall was not well understood.

Similar to the current study results, it was mentioned in a recent study by Visschedijk et al. (2015), that older adults had fear of falling especially when they were at home. It is necessary to conduct further studies in Singapore to find out the reasons to why older adults with hip fracture had fear of falling in home environment. Interventions that boost patient’s confidence needs to be implemented in acute and community hospitals in Singapore so that patients would successfully overcome their fear of falling.

In the current study, caregivers whose family member had cognitive impairment provided high levels of instrumental and supervisory care by providing high levels of support in patient’s activity of daily living. Consequently caregivers experienced caregiving strain where some felt depressed, stressed and lost their appetite. In Singapore’s context, this is the first study which indicated that caregivers who are taking care of cognitively impaired hip fracture patients require further support upon discharge to home. Hedman et al. (2011) study further supports the findings as caregivers from Sweden who took care of cognitively impaired patients with hip fracture experienced greater dissatisfaction and emotional distress. It was also reported in Hedman et al. (2011) that cognitively impaired patients became bed-ridden and wheelchair bound. Hence caregivers had more difficulty in providing care as compared with caregivers of cognitively intact patients.

Upon interview, caregivers who took care of cognitively impaired patients verbalised that they did not know who to seek help from during the difficult phase. Since carers of cognitively impaired patients are at a higher risk of experiencing burden, they could be referred to home nursing services upon discharge (Agency for Integrated Care, Singapore, 2016). In addition to that, before discharge, carers should be provided with relevant contact numbers to seek support for respite care (Touch Caregivers Support, Singapore, 2009). This would allow them to seek necessary support when they are unable to cope with caregiving process.
In certain households, caregivers employed a foreign domestic helper to aid them with taking care of patient at home (Siddiqui et al., 2010). An additional support from a foreign domestic helper served as a predominant strategy which Singaporean families use to provide care (Malhotra et al., 2010). Structured caregiver training is necessary for the foreign domestic helper as more than 50% of them do not have a formal experience in caring for older adults (Malhotra et al., 2010).

Since caregivers health is at risk due to the surfaced caregiver burden, policies could be initiated that allows caregivers to attend annual health screening as health promotion and disease prevention is also a priority for caregivers (Malhotra et al., 2010).

VII. STUDY LIMITATIONS

In this research study, a number of limitations were identified and it will be discussed in this section. Firstly, only Chinese and Malay participants took part in the study. As a result, there was under representation of participants from Indian and Eurasian ethnicity (Department of Statistics Singapore, 2015). However, in a ten year probability of major hip fracture amongst women aged 65 years and above, Chinese and Malay women had high risk of fractures while Indian women had moderate risk of fracture in Singapore (Kanis et al., 2012). During the recruitment phase, only participants of Chinese and Malay ethnic groups were available and therefore were recruited.

Next, in the second phase of interview six participants were lost to follow up. One caregiver was not interviewed as patient passed on within one month after hip fracture and caregiver was in a period of grief. It would be potentially distressing for the caregiver to share about experiences related to caring for a patient who has recently deceased (Streubert & Carpenter, 2011). Therefore caregiver was not interviewed. Five other caregivers declined to take part in the follow up interview due to work commitments. Despite the shortcomings, the research study is still relevant as aims of this study have been achieved and experiences of caregivers caring for patients with hip fracture have been adequately explained.

Thirdly, the current research study was conducted in a single tertiary hospital with ten participants during the first phase. Although the transferability of study results to other settings could be possibly affected, the results generated a rich description of caregivers’ experiences caring for patient with hip fracture from acute hospital, community hospital and then to home setting in Singapore. The results are useful in informing the various challenges in which caregivers face in the process of caring for hip fracture patients.

This study is focused on solely understanding caregivers’ experiences of taking care of patients with hip fracture. However experiences of individuals who sustained a hip fracture were not explored. In the future, research studies could be conducted with patients who sustained hip fracture in Singapore to understand their injury, recovery and disability experiences (Archibald, 2003). This would facilitate a timely support through structured nursing interventions for patients with hip fracture.

VIII. CONCLUSION

Hip fracture is a significant health problem in Singapore. Themes identified in the current study were specific to Singapore’s context. No other literature has identified the collective three main themes and related sub themes in their entirety. It is important to raise awareness amongst healthcare practitioners on the various dimensions of care in which caregivers render at different transitional phases. Structured and timely support needs to be developed and implemented to minimize caregiver burden and improve the delivery of integrated care from acute hospital, community hospital and home care in Singapore.

ACKNOWLEDGMENT

I would like to thank the following people who have supported me during this study. My research supervisors Dr Jane Griffiths and Dr Christine Hallett for providing me constant encouragement and constructive support during the project work. I have received tremendous help from them.

My family played a crucial role during the study. Finally, I must accord my sincere thanks to all participants, family caregivers of patients with hip fracture for their willingness to take part in this research study. Without their participation, the study would not have been completed.

REFERENCES


