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Research Article

Patient safety and falls: A qualitative study of home care nurses in Norway

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Abstract This study explored patient safety and falls, based on the experiences of home care nurses. Four focus group interviews were conducted with 20 home care nurses. The data were analyzed by content analysis. This study identified the following four themes: (i) patient safety was not viewed as primary prevention; (ii) the lack of investigation into causes of falls; (iii) the frailty of older people who can no longer live at home independently and safely; and (iv) patient autonomy versus patient safety. In this study, we showed that home care nurses felt that healthcare personnel were more concerned with the treatment of falls, rather than fall prevention. In addition, home care nurses rarely focused on falls before they occurred. The patient's autonomy was placed before patient safety. This study illustrates that home care nurses might be more aware of fall prevention in clinical practice. Additional research is recommended to shed more light on this topic.

Key words fall prevention, focus group, home care, older person, patient safety, patient autonomy.

INTRODUCTION

Recently there has been more awareness concerning patient safety, with the aim of providing better health care (Doran *et al*., 2009). Focus on patient safety began when the Institute of Medicine published their report, "To err is human: building a safer health system", in which recommendations for patient safety were discussed (IOM, 2000). Patient safety includes avoidance, prevention, and amelioration of adverse outcomes or injuries stemming from the process of health care (Vincent, 2006). In addition, patient safety encompasses systems of patient care, reporting of mistakes, and the initiation of new systems, in order to reduce the risk of errors in patient care (Vande Voorde & France, 2002). In nursing, patient safety also encompasses those nursing care functions for which the profession has sole responsibility (Berland *et al*., 2008).

There is less emphasis on safety in the care of the elderly in community-based care compared with patients in hospitals (Castle & Sonon, 2006), although the elderly is a group with a high risk of adverse events in community care (Madigan & Tullai-McGuinness, 2004). Unfortunate consequences are undesired results without consideration to causes. Approximately half of these can be prevented (Hjort, 2000). It has been demonstrated that falls are adverse events that frequently affect the elderly (Sylliaas *et al*., 2009; Tinetti & Kumar, 2010), and impact patient safety. According to the World Health Organization (2007), falls are described as inadvertently coming to rest on the ground, floor or other lower level, excluding any intentional change in position to rest on furniture, walls, or other objects. There are a great number of studies concerning falls and their consequences among the elderly, and several risk factors have been identified (Pickett *et al*., 1997; Johansson *et al*., 1998; Iinattiniemi *et al*., 2009; Sylliaas *et al*., 2009; Tinetti & Kumar, 2010). For example, it is found that previous falls, strength, gait, balance impairments, and medications are the strongest risk factors for falls by older adults living with others in communities (Tinetti & Kumar, 2010). It is also demonstrated that hip fracture is the most common serious injury experienced by those who fall (Pickett *et al*., 1997). These injuries undoubtedly lead to the hospitalization of which results in suffering and increased dependence, limitations in daily life, anxiety about falling again, depression and poor life satisfaction, decreased social contact, and a reduced quality of life. Falls also result in a high rate of death among the elderly (Stolee *et al*., 2009; Sylliaas *et al*., 2009). For example, it was found that elderly people living at home had a higher risk of death if they experienced two or more previous falls (Sylliaas *et al*., 2009).

Given the lack of adverse event research in home care, it is reasonable to expect that adverse events in terms of falls will occur in home care settings (Masotti *et al*., 2010), which might threaten patient safety. However, little is known about home care nurses' experiences in relation to patient safety and falls, and further research is recommended. Therefore, in the present study, we explored the experience of patient safety, in

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relation to falls, of home care nurses caring for elderly people who lived alone at home and who were completely dependent on home care.

Home care in Norway

Norwegian home care in the community is regulated by law, and is organized differently from nursing in hospitals or in nursing homes. Home care is organized according to geographic boundaries, and it forms an integrated part of the healthcare service within communities. The responsibilities of home care nurses include the continuation of medical treatment, teaching and guidance, administrative duties, the coordination of patient health care, and the observation of a patient's situation to evaluate their ongoing care requirements (Fermann & Næss, 2008).

METHODS

Design and participants

An exploratory, qualitative research design (Polit & Beck, 2008), which included four focus groups, was used.

Twenty-four nurse practitioners were asked to participate in the study, but four declined. The participants therefore consisted of 20 home care nurses. Two communities were chosen, and nurses came from various fields within the home care sector. The selection criteria were that groups could be comprised of female or male nurse practitioners working within home care, and the participants did not occupy a management position, which guaranteed that the home care nurses had direct contact with patients. The membership of the different focus groups varied from four to eight participants. All participants were female, with an age range of 23–56 years; the mean age was 31 years. Previous work experience in the home care sector ranged from 1 to 12 years, with a mean of six years.

Data collection

Focus group interviews were conducted during August 2009. The interviews were conducted with two of the authors; one acted as a moderator (AB), and the other as an assistant moderator (SBB). The responsibility of the moderators was to lead the discussion by posing introductory and open-ended questions. In addition, the moderator maintained the flow of the discussion, and ensured that the discussions between participants was relevant to the theme provided (AB). The assistant moderator made suggestions, performed observations, helped with note-taking, and ensured that the recording equipment operated correctly (SBB).

The theme for the group discussions was patient safety and falls. Each interview began with the question: "Can you describe the experiences you have regarding falls, and how this compromises patient safety?" In order to obtain a complete description from participants, they were asked to elaborate on their statements using questions, such as: "Can you describe that in more detail?" and "Can you give an example?"

Ethical considerations

The Norwegian Social Science Data Service (no. 21931) approved this study. The study was conducted in accordance with the Declaration of Helsinki.

All participants were given oral and written information concerning the goals of the study, and were guaranteed anonymity and confidentiality. They were also informed that their participation was optional, and that they were free to withdraw from the study without explanation at any time. Finally, they were told about how the results from the study were to be used and presented.

Data analysis

The interviews were recorded on audiotape and replayed several times before being transcribed verbatim by the first author (AB). The authors discussed the meaning and interpretation of the text during the analysis process (AB, DG, and SBB).

The data were analyzed using Malterud's (2001) modified systematic text condensation method. The analysis used the following four steps: discussion of the overall impression, identification of meaningful areas, abstraction of meaningful information from these areas, and the interpretation of this information.

The analysis was performed by AB and SBB. First, the authors read the entire text from the focus group interviews several times, in order to obtain a general impression. Second, meaningful units were separated and coded. Third, the meaningful units from step two were compared among all interviews. Finally, the coded units were condensed and abstracted for each category (Malterud, 2001).

Data credibility

Credibility is an especially important aspect of trustworthiness, which refers to the confidence in the truth of data and its interpretation (Polit & Beck, 2008). In this study, credibility was strengthened by ensuring that the statements and experiences communicated by participants were clearly represented. Actual statements were used in the text. The prominent themes that emerged from the results were similar to those that resulted from the focus group interviews. This was an indication that these themes had been thoroughly discussed by the groups, and that they provided a complete picture of the views of participants on falls and patient safety. It was important to create a safe and relaxed atmosphere where the participants felt free to speak openly and express their opinions. The credibility of a focus group might be compromised if participants withhold information (Raczka, 2005). In addition, there was a summary session at the end of the focus group interview where the participants could confirm their statements and point out what areas they felt were most important.

RESULTS

The findings identified four themes related to patient safety and falls: (i) patient safety was not viewed as primary prevention; (ii) the lack of investigation into causes of falls; (ii) the frailty of older people who can no longer live at home independently and safely; and (iv) patient autonomy versus patient safety. The third theme, that is, the frailty of older people who can no longer live at home independently and safely, contained the subtheme: lack of initiative to secure places at institutes (Table 1).

Patient safety was not viewed as primary prevention

The group discussions found that nurses were concerned with safety in order to prevent falls, but this varied during their daily work. The focus on safety was particularly important when nurses identified environmental factors that gave cause for concern with specific patients. There was increased focus after an accident. Participants provided the following observations: there is a focus on safety, but they see situations where there is greater concern. In the case of new patients, patients living with dementia, and patients with upper femur fractures, there is increased concern if patients need to climb stairs and step over doorsills. In these situations, there is a total focus on safety and we do all we can to provide a physiotherapist and other such support. The focus increases when there has been an accident.

Lack of investigation into causes of falls

During the group discussions, it was noted that after a fall the emphasis was placed on injuries, for example, fractures, but not their causes or methods of prevention, as explained by one of the participants:

> The physicians take an X-ray and the focus becomes the broken femur, but did a stroke cause the fall? They focus on the fracture without seeking an explanation for the cause of the fall.

Frailty of older patients who can no longer live at home independently and safely

The nurses were concerned with patient safety. They expressed their frustration when a patient who should be in a nursing home cried when the nurses had to leave, or when patients spent the night on the floor after a fall. The following statement illustrates this:

> The truth is that we have a number of patients who should be in a nursing home, but they cannot be placed. This is a risk for these patients, because they should not be in their own home. We feel frustrated when we must leave and they are crying.
>
> The one who broke her pelvis was a demented patient who lives at home . . . There are a number of patients who should not be living at home due to senility and other illnesses. They might also fall in a nursing home, but help is close by. At home, they spend the night on the floor.

The nurses described patients who experienced multiple falls and their constant meetings with the health services. The following statement explains what is required for a patient to be moved to a nursing home:

> She was sent by ambulance to the casualty clinic. She was sent home late in the afternoon, and she was to receive a night watch, but when the night watch person arrived, she was lying on the floor with a cut on her head and a bloody nose. She went back to the casualty clinic where she was admitted to the hospital on a short-term basis, but she never returned home.
>
> There was a . . . lady, who was at least in the early stages of dementia, and she had many stairs in her house. She slept on the second floor, and we said to each other, "She will probably have to break something in order to get into a nursing home", which she did. She broke both arms and it was very traumatic. I remember that both arms were broken in the fall, and I have not seen her since, because she got a place in a nursing home. This was extreme and grotesque, but I must say, that it is a typical example.

Lack of initiative to secure places at institutes

In this subtheme, nurses related that they were aware of those home-based patients who were at high risk of falling, and in many cases, they fully expected a certain patient to experience a fall; however, the situation did not always allow for quick placement in a nursing home:

> I can recall a thousand examples of people falling where it was predictable. I know that it will happen sooner or later, and these people should not be living at home, which is also not their wish. The lack of available places has created this situation.

Patient autonomy versus patient safety

It emerged from discussions that nurses and families discussed ways of preventing falls. However, they stressed that

Table 1. Themes related to patient safety and falls in home care

Themes	Patient safety was not viewed as primary prevention	Lack of investigation into causes of falls	Frailty of older patients who can no longer live at home independently and safely	Patient autonomy *vs* patient safety
Subtheme			Lack of initiative to secure places at institutes	

not every patient wanted to follow their advice on reducing the risk of falls. The following statement illustrates this point:

> Especially stairs . . . if they have stairs in the house, if they climb stairs themselves . . . we speak to the family and ask if it would be possible to move the bedroom downstairs, but not all patients want this and some refuse.

It was not easy for nurses to explain risks to patients who did not understand or who did not wish to follow decisions made for them, even if bedrails were needed. Nurses were also concerned that patients could climb over bedrails or get out of bed when the bedrails were not in use. The risk of falling was still present, even with bedrails. In addition, the use of sleeping pills and other medications could increase the risk of falling. The following statement provides an example of this:

> We have touched on the topic of bedrails. A new law was passed at the beginning of this year that bedrails cannot be forced. Thus, we are not allowed to do that, even though it is best for the patient, so it is very difficult. We need written consent. They are not always competent . . . dementia patients and those needing assistance to express themselves cannot give consent. We think it has gone well with most patients, and I don't think there have been any incidents of climbing over the bedrails, but it could happen with those who use sleeping pills in addition to their normal medication. They can begin to climb over and they can get out of bed, whether the bedrails are up or not. Regardless, falling is a risk.

DISCUSSION

In the present study, patient safety and falls, based on the experiences of home care nurses, were explored. The results of the study showed that the participants emphasized patient safety; however, their focus on patient safety increased when there was an accident, but this was of course too late for the patient. Naidoo and Wills (2009) suggest that foresight seeks to avoid the onset of ill health by the detection of high-risk groups and the provision of advice and counseling. According to Todd *et al*. (1995), waiting for a fall to happen before prioritizing patient safety will not avoid serious consequences, because half of those with hip fractures never regain their previous level of functioning, and one in five die within three months. Those who benefit most are those who have never experienced a fall (Meador *et al*., 2010). The participants explained that there was a lack of follow up to determine why a fall occurred in the first place. In nursing practice, responsibility is a phenomenon that can be identified, which includes the cognitive, behavioral, social, and ethical aspects of clinical practice (Kim, 2000). It emerged in our study that health personnel focus on bone fractures when they have already occurred, and not on prevention.

Previous studies have that people who fall frequently have limited recall of the details of their fall, or they might even forget falling altogether (Nevitt *et al*., 1989; Lamb *et al*., 2005). In addition, individual patient profiles have been identified in order to determine their risk of falls (Fuller, 2000; Doran *et al*., 2009). Healthcare personnel should be aware that a fall could be indicative of other health problems (Fuller, 2000; Pettersen, 2002). A telephone questionnaire (Pettersen, 2002) conducted with all geriatric units in Norway found that patients experiencing falls were not referred to a specialist to determine the cause of their fall. Furthermore, surgery units did not refer older patients further after they had been treated for a fracture (Pettersen, 2002).

The participants were concerned about the safety of patients who could no longer live independently at home. There were several reasons for this concern. Some patients were evaluated as requiring so much care that it would be irresponsible for them to remain living at home. These patients needed as much care as those in nursing homes. This finding was supported by recent research conducted with patients waiting for a place in a nursing home, which showed that nurses were concerned for a patient's safety if their level of function was as low as that of patients in nursing homes (Fjelltun, 2009).

The nurses described the helplessness they felt for those vulnerable patients living at home currently waiting for a place in a nursing home. They felt that these patients were at high risk of falling. They were disturbed at the ordeals experienced by some patients before they were admitted into a nursing home. They described how patients who had fallen and endured head or chest injuries were forced to attend a number of meetings with primary healthcare providers and at hospitals before they were able to secure their place in a nursing home. This is in line with an investigation of the US home care system by Liken (2001), who found that a critical accident was often the determining factor in allocating patients a place in a nursing home. A study of five communities in Norway showed that there were no written guidelines explaining the criteria for nursing home admittance. Decisions concerning the priority of patients were determined based on professional medical opinion and an evaluation of the patient's situation and needs. In addition, the geographic location, difficult situations, and family pressure could also influence these decisions (Dale, 1999). According to the Guidelines for the Prioritizing of Health Services (Ministry of Health & Care Services, 2000), healthcare services are provided to those with the most acute need. Other than this general statement, there are no national criteria in Norway for allocation of a place in a nursing home (Fjelltun, 2009). In addition, in this study, we found that there is a shortage of available nursing home places. According to a meta-analysis, the three strongest factors affecting admittance to a US nursing home were as follows: cognitive loss, need for help with three or more of life's daily functions, and previous admittance to a nursing home (Gaugler *et al*., 2007). Another study showed that in addition to need, the length of the waiting period could depend on the patient's wishes, the patient's sex, and the workload of the nursing staff (Meiland *et al*., 1996). Other factors identified in studies were the need for advanced care, the involvement of the patient's family, a patient's dementia-related behaviors, and the need for more assistance (Buhr *et al*., 2006).

The nurses pointed out that not all patients followed their advice related to measures for preventing falls. These measures included moving their bedroom to the ground floor to avoid climbing stairs. Patients wanted their furniture arranged as it was, and they did not want to admit to their dependence on care. According to Randers and Mattiasson (2004), autonomy is grounded in a respect for the patient's ability to choose, decide, and take responsibility for their own lives. An earlier study pointed out that some patients were concerned with how their home looked, and they viewed changes in their home as embarrassing. A patient's illness became more obvious when special equipment was needed (Gunnarshaug, 2007). Another study found that elderly patients treated a nurse's advice as a threat to their identity and autonomy, and they were often ignorant of fall risks (Yardley *et al*., 2006). A review that focused on the viewpoints of elderly patients regarding fall prevention found that collaboration between nurses and patients was important for identifying suitable measures that patients were willing to implement for preventing falls (McInnes & Askie, 2004).

In the current study, we indicated that the use of restraining devices, such as bedrails, was very difficult for nurses to implement. The nurses gave the impression that bedrails were best for the patient, but there was still a risk of falls if the patient decided to climb over their bedrails or if they climbed out of bed when the rails were not in use. In addition, medications and climbing together increased the risk of falls. A recent study investigated the fall risk factors, such as bedrails, belts, wheelchairs, and changes in medications, and concluded that there were fewer falls among those adopting preventative devices (Fonad *et al*., 2008a). Physical restraining devices are often used in health care to prevent falls, but they must be used with care and with regard to the patient's situation, both morally and ethically. Bedrails can prevent falls, but falls are from a greater height and can be more damaging if a patient attempts to climb over them (Fonad *et al*., 2008a). Recently, there was a change in the laws governing patients' rights in Norway, which stated that health personnel require written consent before making decisions regarding necessary health aids for competent patients (Ministry of Health & Care Services, 1999). Nurses often use physical restraints to protect patients, even though it might compromise a patient's integrity (Fonad *et al*., 2008b). The goal should be to preserve the dignity of patients as much as possible when a patient's ability to reach autonomous decisions is compromised (Randers & Mattiasson, 2004). Thus, the use of bedrails for protection must be carefully evaluated on an individual case-by-case basis to ensure that these practices do not lead to force or the misuse of power (Fjelltun, 2009).

Limitations of the study

Transferability essentially refers to generalizability or the extent to which findings can be transferred with applicability to other settings or groups (Polit & Beck, 2008). In this study, we obtained data from a small geographic region and with a small sample, which could possibly limit transferability. Despite these limitations, these results provide insight into patient safety and falls in home care settings.

Conclusion

In the present study, we used qualitative focus group interviews to explore patient safety and falls, based on the experiences of home care nurses. The strength of using a qualitative method might be that the findings contribute to a deeper understanding of patient safety and falls in home care. In summary, the findings showed that home care nurses felt that healthcare personnel were more concerned with the treatment of falls, rather than fall prevention. In addition, they rarely focused on falls before they occurred. Nurses also said that patients' autonomy was placed before patient safety. This could compromise the safety of patients who were actually too ill to live alone at home. Further research is necessary to gather more information on this subject.

CONTRIBUTIONS

Study Design: AB, SBB.
Data Collection and Analysis: AB, SBB.
Manuscript Writing: AB, DG, SBB.

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