Patient experience with early discharge after total knee arthroplasty

– A focus group study

Abstract

Background. Total knee arthroplasty is experienced as a painful procedure, and pain after surgery seems to be the most limiting factor for early mobilization. Physical exercise is of utter importance for avoiding complications such as persistent pain and functional limitations. A fast-track pathway aims at improving patient outcome, and patients are now discharged 2-3 days after surgery. Little is known about how the patients cope with pain, exercise or daily activities at home.

Aim. To explore the experience of patients undergoing total knee arthroplasty in a fast-track pathway during the first 2 weeks after surgery.

Design. Qualitative design.

Methods. Three focus group interviews, including 13 patients from two different units of an orthopaedic department in central Norway, were conducted from May to June 2015. The interviews were analysed using Malteruds’ method of systematic text condensation.

Findings. The main finding was the patients’ determination and ability to cope at home. The fast-track pathway seemed to enable patients to take an active role in own self-care. The patient’s coping capacity was strengthened by education, knowledge and predictability. Four main areas related to coping emerged after discharge. First, the majority of patients expressed that it was good to come home and take responsibility for their own rehabilitation. Second, prerequisites for feeling secure after returning home were highlighted. Third, the patients seemed empowered by sharing experiences with others. Fourth, postoperative pain was prevalent in many patients after discharge, but the patients seemed prepared by information provided in the fast-track pathway.
Conclusion. The fast-track pathway released coping skills and resources among the patients. The expectation of, and preparation for early discharge made the patients feel confident when discharged few days after surgery. The patients expected to take great responsibility for their own rehabilitation process.

Keywords. Total knee arthroplasty, fast-track, coping, security, qualitative design.
Introduction

The number of total knee arthroplasties (TKAs) has increased substantially in recent decades (1, 2). TKA reduces pain and improves function, and the procedure has been shown effective in improving health-related quality of life (2-6). However, studies indicate that almost 20% of the patients are not satisfied after surgery due to persistent pain and functional limitations (7-9). TKA is acknowledged as a painful procedure, and pain after surgery seems to be the most limiting factor for early mobilization (10). The most painful period appears to be the first 2 weeks after surgery (11, 12). Physical activity intended to regain muscle strength are of great importance for avoiding complications such as prolonged stiffness and persistent pain in the operated knee (13-15).

To improve patient outcome, fast-track programs have evolved over the last 15 years. The main focus is to reduce convalescence time and complication rates (including reduced morbidity and mortality), increase patient satisfaction and reduce time to full physical function (16). Evidence-based knowledge according surgical technique, anaesthesia, analgesia, nutrition and fluid management are fundaments for improved care of the individual patient (16). After implementing fast-track programs, about 90% of TKA patients are now discharged to home 2–3 days post-operatively (17).

A study of 445 patients who underwent fast-track hip or knee replacement in Denmark shows high patient satisfaction the first weeks after surgery (18). However, a systematic review of qualitative studies find that few studies have investigated patient experiences of participating in fast-track programs (19). The studies are mainly concerned with medical and physical problems and are as such more problem orientated (11, 20-22). Further, the review reports that patients seem to struggle with pain management and mobility, and that people living alone express a need for longer hospitalization or more support after discharge (22, 23). Patient involvement in own rehabilitation and resourceful spouses have been reported to have
positive impact on early recovery (24, 25). Research focusing on patients own coping resources after TKA has to our knowledge only been addressed in one previous study (26).

Patient ability to cope at home with a potentially painful knee is a prerequisite for early discharge. We thus wanted to explore how the patients used their coping strategies and coping resources. Coping is characterized as a changing cognitive and behavioural effort exceeding the person`s resources (27). Two main strategies are commonly used when a person faces a stressful situation; emotion-focused coping and problem-focused coping (27). How patients cope with illness, seems dependent on threats that concern the patients (28). Most of the patients with arthrosis in the knee have experienced years of pain, and surgery may be their only opportunity for a better life (29, 30). As such, threatening factors as fear of complications or fear of more severe pain may influence a patient’s ability to cope after surgery. Learning more about patient experience when coming home after TKA may lead to improvements in patient care. The aim of the present study was to explore the experiences of patients undergoing TKA in a fast-track pathway during their first 2 weeks after surgery. The focus areas were coping with pain, exercise and daily activities after coming home.

Method

A qualitative descriptive design was employed, collecting data through semi-structured focus group interviews (31, 32). The study was phenomenological in the sense of capturing the patients’ experiences, how they transformed these experiences into consciousness, both individually and as shared meanings (31). Focus group interviews give the participants an opportunity to share and compare experiences, and give the researcher access to direct data about their experiences revealed by the group process (32-35).
Participants

The participants in our study underwent a standardized fast-track pathway that started with a nurse-led telephone screening of home conditions. The patients were questioned about e.g. stairs in their apartment, their ability to get help from a relative, their motivation to go home or the need for rehabilitation. Thereafter, close to date of surgery, a preoperative educational seminar was conducted by a surgeon, an anaesthesiologist, a nurse and a physiotherapist, both individually and in groups. Relatives were invited to join the seminar. Information from the education program was repeated throughout the hospital stay and supplemented by a pamphlet of written information.

In the fast-track program, the multimodal analgesic regimen are mainly orally administered and standardized as far as possible (17). An important discharge criterion is that the patient must be able to get dressed and go to the dining room. If not, the patient will be offered a longer stay. The first week after discharge, the patients are encouraged to contact the hospital with questions of for instance wound care, oedema, pain or exercise. The first scheduled follow-up consultation is eight weeks after discharge.

Patients undergoing TKA in a fast-track pathway at two different geographical units of a university hospital in Norway were recruited in May–June 2015 for three focus-group interviews, each including three to five participants. A purposive, homogeneous sampling was considered appropriate in order to answer the research questions and we included patients in the equal time-line of the rehabilitation process. The recruitment was conducted at the pre-surgical education seminar 1–2 weeks prior to surgery. The actual day of surgery determined the group composition. The patients were contacted before discharge and at home before the interview to ensure their participation. The focus group interview was conducted 2 weeks after surgery. Patients discharged to a rehabilitation centre and patients with cognitive impairment were excluded. We recruited 15 participants of which two withdrew from
participation due to pain or not feeling well on the day of the interview. Finally, eight women and five men, 40–79 years of age (mean, 64.2 years, Table 1) participated in the focus group interviews. Participation was voluntary; the patients were given verbal and written information about the study as well as information about confidentiality, also concerning other participants in the focus groups.

Data collection

The interviews were conducted in a neutral meeting room at the university hospital’s research department, using a semi-structured interview guide (Table 2). Three focus-group interviews, each lasting 90–120 minutes were audio-recorded and transcribed verbatim. A moderator initiated the interviews, inviting the participants to share their own experiences after coming home. The participants were allowed sufficient time to individually express their experiences after discharge from hospital. The data collection was enriched through the group process as the participants told their stories, listened to and discussed the experiences of the other participants. One of the researchers monitored the group process during the interviews, taking notes that allowed analysing its contribution to data creation (35). After three interviews, we found that the information gathered was sufficiently saturated for analysis.

Data analysis

The data were analysed using systematic text condensation (36). The method is explorative, aiming at presenting essential examples from people’s life experience (36). The analysis included four steps. First, we read the transcripts to gain an overall impression of the data, finding preliminary themes. Next, we systematically reviewed the transcribed interviews line by line, identifying meaning units or text fragments representing patients’ experiences in the fast-track pathway. The meaning units were classified and sorted into code groups. Third, we condensed and abstracted the content of the meaning units belonging to each of the coded
groups. Finally, we summarized the contents of each code group to generalize descriptions and concepts concerning the patients’ experiences after TKA.

The main author read all the transcribed interviews. The moderator read interviews one and three, and the last author read interviews two and three. The research team discussed their preliminary themes to create a wider analytic perspective before conducting the next steps of the analysis (36). The analytical texts were constantly compared with the coded meaning units to ensure compliance. The analysis included looking for alternative explanations and divergent patterns supported by the data. The impact of the group process on the data created in the group was discussed thoroughly.

*Rigour*

Before data collection, the research team described their preconceptions, which might influence the analysis. By making them explicit, they might be challenged during the analytical process. One researcher worked in the operating theatre but was not acquainted with the patients during their hospital stay. The other researchers were university employees. All the researchers were astonished by the participants’ lack of complaints and their positive attitude toward managing independently, which resulted in the main theme of “Coping”. This impression was scrutinized and challenged through the next steps of the analysis. The codes represented the empirical findings and were not identified in advance. For codes with extensive overlap, the authors renegotiated the substance of the codes and meaning units. An experienced qualitative researcher was consulted to ensure rigour in the analysis. However, two patients did not participate due to pain. Their experiences might have nuanced the data material and provided a deeper understanding of the patient experience.
Ethical considerations

All participants were informed about the voluntary participation as well as the aims and objectives of the study. The study was approved by The Regional Committee for Medical and Health Research Ethics in Central Norway (no.2015/465/REK), and written informed consent was obtained from each patient before inclusion.

Findings

The main finding of the analysis was the patients’ determination to cope at home. Four main areas related to coping after discharge emerged. First, the majority of the patients expressed that it was good to come home and take responsibility for their own rehabilitation. Second, the prerequisites for feeling secure after returning home were highlighted, but not always fulfilled. Third, the patients seemed empowered by sharing experiences with others in the same situation, creating data in the interview situation. Fourth, postoperative pain was prevalent after discharge, but the patients seemed prepared by information on the pain topic provided in the fast-track organization. The findings will be elaborated below.

The value of coming home

The patients were excited about their rapid recovery, noting the ability to fully load the operated leg just two hours after surgery. Being “chased out of bed” emphasized the expectation of self-care. Some of the participants discussed recent developments in knee replacement surgery, as only a few years ago, patients were hospitalized for one week followed by a stay at a rehabilitation centre for 4 to 5 weeks.
Woman 1

“Now you are discharged after two days and you have to trust yourself”

(Focus group (FG) 1)

Most patients felt it was good to come home and sleep in their own bed. Some were living alone, which demanded preparations in the house before hospitalization. One man in his late sixties where very concerned about how he could manage to get out of the bed. He had tried raising the height of his bed as a possible solution. After coming home, he found that his preoperative concern was unjustified. He laughed when he explained how he managed to go shopping:

Man 1

“… used crutches. So I went shopping you know, it was quite fun. I went around with a rucksack. But it was OK. So you just have to comply” (FG 3)

Preoperative worries seemed to be minimized when coming home. The patients told many stories about how they managed daily activities. One woman had a little bag with a thermos with tea and a box with food, which she attached to her crutches when she walked from the kitchen to the living room. She had a grandchild to help her, but mainly she wanted to cope alone.

Woman 2

“I have not had surgery in any knee before, and I live alone. So I was eager to see if I would be able to cope at home then you know” (FG 1)

Everyday life created activity. A woman living in a house with five floors described how she managed going to the toilet on another floor than the living room, and how the ability to manage at home gave a sense of coping. Another woman experienced reactions from her
family who found her early discharge reprehensible. However, she was motivated to come home to her cat, and she reflected:

Woman 1

“So I do not know how many times I get up to open the door for this cat so she should go in or out. But I think that it's a bit of exercise in it as well. Rising from my chair and going” (FG 1)

The training program started with a pre-admission educational class. Some of the patients memorized the written training program before surgery; others had attached it to the wall at home. One patient exclaimed:

Woman 1

“…getting started with exercise, it was about the only thing that was on my mind.” (FG 2)

Several of the patients wondered if they were too eager to exercise, as excessive activity often was followed by pain at night or a swollen thigh and leg. A swollen knee was an obstacle for activity, but they realized that passivity could contribute to a stiff knee.

Security and predictability

Although the patients were prepared and appreciated coming home, the most important prerequisite for being discharged 2 days after surgery was to feel secure. Several patients had contacted the hospital, either because of bleeding in the bandage, a swollen leg or allergic reactions. Some could not remember why they called, but the certainty of getting help if necessary seemed crucial:
Woman 3

“I was informed that I could come to the hospital if I felt insecure. So I think that’s very nice that you can call the hospital and then you get to talk to someone” (FG 1)

Due to extensive education and information, the patients seemed prepared for early discharge. Information was repeated by nurses and physiotherapists throughout the hospital stay, thereby creating confidence and predictability. The pamphlet of written information in the fast-track trajectory was highlighted as the most important piece of patient information and many patients expressed satisfaction in meeting others at the patient school.

There was however room for improvement. Some patients had listened to other patients telling stories about serious complications at the patient school. Such stories were frightening and might have a negative impact on learning. A woman who lived alone experienced difficulties booking follow-up physiotherapy even though she had been told that this was standard procedure. Promises not met created uncertainty, and being able to trust the expected treatment path was of great importance.

Woman 1

“People are sensitive in a situation like this. You are defenceless” (FG 2)

Further, there were some discrepancies in the instructions given by the surgeons and those given by the physiotherapists in the municipality health centres who provided the surgical follow-up. Some physiotherapists introduced exercises for regaining strength and reducing tissue effusion early in the postoperative course, while others used the first session for talking. The surgeon recommended exercising with high intensity immediately, but the physiotherapists seemed to be more reluctant.
Feeling empowered by sharing experiences

Vulnerability was expected by some of the patients due to previous experience. Others were surprised by such reactions after surgery as they felt exhausted and needed a lot of rest, highlighting vulnerability as a problem. The group created room for both agreement and disagreement, and the participants seemed to obtain mutual benefit from sharing experiences and feelings:

Woman 4

“I’m just wondering. Am I the only one who feels like my psyche is worse now than before the operation? I can stand so little before I get tired. Grandchildren and the like tire me out so quickly.”

Woman 3

“Yes, you are a little more vulnerable in a way. I feel the tears come easily. But I know I have been like this before, but then it was with narcosis, but … feel like the tears are coming, I simply get so vulnerable. I am.”

Woman 2

“You tolerate less, somehow, the body I mean, because there has been a strain.”

Woman 4

“Yes it has.”

Woman 2

“No matter how good it seems to have been (the surgery), it has been a strain.” (FG 1)

Several patients expressed satisfaction with the “opportunity” to participate in the focus group interview and explained that it was useful to exchange experiences with others in the same situation. One woman even called it a kind of “debriefing”. A gathering was experienced as
useful because of the present feeling of being alone, even for those who were living with spouses. One of the patients said that she felt like being a prisoner without the possibility to go anywhere:

Woman 4

“.. that you were all alone, it was all up to me. I therefore want to say that such a gathering (focus group interview) is so good, because now I get to hear a bit about how you others are doing. And it was very useful for me, I think. So it’s not just you (the researchers) that this is useful for” (FG 1)

The focus group created an environment where questions could be asked, and where difficult experiences could be discussed and understood by the other participants. Not all the participant’s experiences were confirmed by others, but everyone listened and commented, and the atmosphere contributed to sharing experiences and asking questions.

No pain, no gain

Most patients found surgery as the only choice for a better life and the main motivation was to get rid of the 24/7 pain, especially at night. Pain severity had worsened over time, resulting in decreased physical activity and increasing use of painkillers. When the decision to undergo surgery was taken, they felt relieved. Although persistent preoperative pain had been a problem, several patients were pleased when the surgeon confirmed that the joint was totally worn out. This gave them a positive feeling after surgery.

Man 2

“the doctor said it was the worst knee he had ever seen and that he couldn’t understand how I could have been walking with that knee” (FG 3)
Most patients described the postoperative pain as different from what they had experienced before surgery, and the experiences regarding postoperative pain seemed to diverge. Some patients claimed they had very little pain, feeling relieved that the “continuous toothache pain” in the knee joint now was gone. Others had regrets about the surgery the first days at home due to severe pain. Cold treatment and compression wraps was highlighted as an effective pain treatment as muscle pain was an overall experience. A swollen thigh caused severe pain and was explained as pain from a tourniquet used during surgery and they wondered how long it would take before the post-surgical stiffness and pain disappeared. The majority of patients found it difficult to find a comfortable sleeping position due to pain.

Woman 2

“It was a period when I wondered if I would go through it again if I knew” (FG 2)

The nursing staff had emphasized the importance of continuing the medication after discharge and pain management at home caused some excitement. One described looking at the watch for the next administration and some tried to adjust the hours between to “save” medication for night-time. Regarding pain medication, we found different approaches. Some patients held out a receiving hand, others had trouble understanding the necessity for all the medication. One woman came from a family where the use of pain medications was practically absent. She wondered:

Woman 2

“How many painkillers can my body take?” (FG 2)

The participants found it challenging but satisfactory to use their own resources to direct their own recovery at home, based on the information gathered from health personnel. They realized that post-surgical impairment was temporary, with prospects of improvement in daily
functioning. Although severe postoperative pain was still present, they knew it was because of surgery.

Woman 3

“Yes it hurts today as well. But I know what it is, why it’s there” (FG 2)

In addition to pain relief, another motivational factor for surgery was the desire for a more active lifestyle, and the participants seemed to have realistic expectations of their future activity level.

Man 3

“…soon I’ll be sitting on a motorbike again ….” (FG 3)

Possible future activities were discussed, and they were relieved when the doctor assured them that they would be able to go skiing, mountain hiking and bicycling. They were well aware that running, soccer and downhill skiing were not good for the knee. They realized they had been through extensive surgery and knew the rehabilitation period would last several months.
Discussion

The primary aim of this study was to explore the experiences of patients undergoing TKA in a fast-track pathway during their first 2 weeks after surgery. The study focused on how they solved the challenges related to pain, physical activity and daily activities at home. Our initial preconception was that severe pain after TKA limited patient activity level and that they were in need of some support or guidance from health care workers. With some exceptions, we found that participants were pleased to come home and that they expressed pride in what they were able to manage alone. We heard stories of coping, satisfaction and hope for the future in spite of pain and temporary post-surgical impairment. The participants focused on their capacity to solve problems and their ability to use the available resources to maintain health and cope with the stressful situation. The experiences were presented with optimism, and strong coping resources emerged.

In our study, the participants were faced with expectations of coping due to the fast-track pathway which seems to enable patients to take an active role, and give them room for self-care. Although the first nights at home were painful and they had trouble sleeping, they were prepared for coping at home. Coming home 2 days after surgery was regarded as appropriate, which is in line with another study of early discharge after TKA (11). Even those with adverse events (e.g. severe nausea, hives, or high blood pressure) wanted to stay at home; readmission was not an option. This reflects their coping toward stressful events, being able to resolve tension in a health-promoting manner.

A predictable pathway, where the patients’ preoperative expectations are met, is of utmost importance regarding patient satisfaction after surgery (7, 37-40). A recent qualitative study finds that knowledge increases the patients’ sense of control and that patient education has a relational/psychosocial dimension which creates a trustful relationship with the staff and the hospital (41). Exploring patient expectations and educating patients to make realistic goals for
functional activity have been suggested to improve satisfaction after TKA (42, 43) whereas inconsistent and poor communication among health care providers can influence patient trust negatively (44, 45). In our study, the unified fast-track program with trained nurses and physiotherapists who strengthened the participants coping resources seems to have made them believe they were capable of dealing with the challenges at home. Although a Danish study (26) found that some patients were in need for more individualized approach to facilitate patient participation in the fast-track program, our participants expressed confidence in the situation.

After discharge several participants took the opportunity to call the hospital to get additional information, which highlights their ability for problem-focused coping. Some of them were offered to visit the hospital for observation of wound exudate or a swollen leg. The belief in getting help when needed was highly appreciated, and was a prerequisite for feeling confident of coping. Even in standardized patient pathways, it is possible to tailor the information or support based on individual needs.

Before hospital admission and due to advices from the preoperative telephone screening, the participants prepared for an early discharge by making arrangements for resuming their everyday life. Participants who lived alone made appointments with relatives while others managed alone. Including relatives in the fast-track pathway has shown to have a positive impact on early recovery (25, 46).

A need for longer hospital stay or support from health care providers after discharge was not expressed as an issue in the focus groups interviews. Enabling patients to increase control over their health can be defined as empowerment. Empowerment is a process where people are enabled to gain greater control over decisions and actions affecting their health (47). Recommendations for implementing empowerment strategies based on education includes a multidisciplinary approach and contains elements from a fast-track program with repeated
messages, multiple reinforcements and booklets (48). A recent study found that the incidence of cognitive postoperative dysfunction early after TKA seemed to be reduced with a fast-track approach (49). By improving skills needed to deal with difficult or challenging situations, health providers can facilitate the ability of patients to use their coping resources (50).

The focus group interview may have influenced our results, as the group process could have given the participants an opportunity to tell about their coping skills, thereby activating recourses by sharing experiences. Individual interviews might have revealed more negative patient experiences. However, focus group interviews may facilitate the disclosure of negative experiences related to early discharge, because the group may form a safe environment for discussion (34, 35). Research interviews have a potential of being therapeutic, and sharing experiences with others in the same situation might be experienced as a relief (51, 52).

Several participants in our study experienced physical and emotional challenges at home. In a recent study from a fast-track pathway in Denmark, the patients reported challenges with pain, leg effusion, constipation and the feeling of vulnerability 2–3 weeks after discharge (21). In our study, the feeling of vulnerability was one of few challenges not foreseen. Future patient education needs to prepare for such reactions, as the feeling of vulnerability seems to be a general challenge related to surgery (45).

The majority of participants in our study were astonished by the amount of painkillers required, but they soon realized the necessity of this multimodal pain management. Preparing patients for the fact that knee replacement is painful surgery can give them the ability to understand the pain—“Yes it hurts but I know the reason”—and if they withstand the pain, it will be better afterwards. The disappearance of the “old bone pain” and the understanding of the “new post-surgery pain” were expected. At this point, knowing that the surgery went well even if it was painful; the patients had gained hope for a more active life without pain. A satisfactory outcome is likely to lead to positive emotions, thereby mobilizing coping activity
As knee osteoarthritis is a condition that changes and affects a person’s life due to pain and reduced activity (30), surgery represents the dream of a new life.

The participants appreciated being mobilized out of bed on the day of the surgery, which is a standard procedure in the fast-track program. During hospitalization they are encouraged to be as active as possible, wearing their own clothes, participating in group physiotherapy and having their meals in a dining room together with other patients (17). We found that many participants were concerned about exercising and regaining muscular strength, as recent research recommend strength training and physical exercise soon after surgery (54, 55).

Physiotherapy sessions are supposed to start 2-3 weeks after surgery, but the majority of the participants in our study had already been in contact with a physiotherapist in their municipality before the interviews. A common experience was however that the local physiotherapy treatment strategies were inconsistent and did not correspond with advice given by the surgeons and physiotherapists in the hospital. This is in line with other reports (23). There seems to be a lack of consensus regarding guidelines for evidence based rehabilitation (56).

**Study Limitations**

The study participants seemed to feel well prepared for early discharge. However, two patients withdrew from participation in the focus group due to pain or not feeling well on the day of the interview, which is a signal of a troublesome recovery. Interviewing the fittest participants may thus have biased our findings.

Another bias in our study may have been that the participants perceived us as representatives of the fast-track program even though we emphasized our roles as researchers. Before the interview we presented our backgrounds and encouraged the participants to feel comfortable of expressing both negative and positive experiences, and that we wanted to
explore the TKA trajectory based upon their experiences. We found the participants eager to share their first-hand experience of TKA surgery.

We interviewed a small patient sample, but found that the data we collected was sufficient for analysis, as the last interview did not bring up any new issues. The participants were included from two different geographical units in a university hospital, both organized by the same fast-track principles, which ensured variation in the participants’ experiences.

Interviewing patients in focus groups gave us access to patient experiences. However, the participants in our study might have presented their experiences more positively than was the case because of the focus group. The result may have been different with individual interviews.

**Conclusion**

The main finding in this study was that the fast-track pathway released patient coping skills and resources and that everyday life created activity. The expectation of, and preparation for early discharge made the participants feel confident when discharged 2-3 days after surgery. They expected to be in charge of their own rehabilitation process. A possible explanation for the findings is the contribution of the multidimensional educational program carried out throughout the perioperative period. Another important finding in our study was that sharing experiences with others in the same situation was valued by the participants. The effect of postoperative organized groups should be further explored.

This study brings new knowledge for both patients and health care providers. It shows patients that early discharge not necessarily means being left alone at home but that a follow-up can be offered within the organization. Further; health care providers must realize that many patients have strong coping resources that can be evolved by education, knowledge and
predictability. However, security of getting help when needed is a prerequisite for early discharge.

**Conflict of interest:** No conflict of interest has been declared by the authors.
References

34. Kitzinger J. The methodology of Focus Groups: the importance of interaction between research participants. Sociol Health Illn. 1994;16(1):103-21.
45. Westby MD, Backman CL. Patient and health professional views on rehabilitation practices and outcomes following total hip and knee arthroplasty: a focus group study. BMC Health Serv Res. 2010;10:119.

Table 1. Demographic characteristics of the participants

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Table 2. Interview guide

**Beginning question**
We will begin the interview with a preliminary session to get started. We have given you pen and paper and would like you to think back to the day you were discharged from hospital. Can you write down three topics of concern to you?
(All the participants are invited to answer)

**Open-ended questions**
Please, tell us about your first, 2 weeks at home after discharge.
- What issues and problems showed up?
- How did you solve the problems?
You have all attended a preoperative outpatient clinic.
- Can you tell us about your experience there?
Did you feel prepared for everyday living when you came home?
- How did you cope with everyday tasks?
Have you experienced pain after surgery?
- How did you cope with pain and pain treatment after the surgery and after coming home?
- What about the exercise program, how did you cope with that?
- How did you get help when you needed? How did it feel to ask for and to receive help?

**Disclosure**
Are there any relevant factors related to knee joint replacement that we did not discuss?