

ARTICLE

Surgical patients' experiences of information about medication: A qualitative comparative study with a patient-centered medication counseling upon discharge

Helen Schultz RN MScN PhD^a, Carina Lundby MScPharm^b, Julia Filipzen^c, Susanne Rasmussen^d and Anton Pottegård MScPharm PhD^e

a Nurse Researcher, Surgical Department, Odense University Hospital & Institute of Clinical Research, University of Southern Denmark, Odense, Denmark

b PhD Student, Hospital Pharmacy Funen, Odense University Hospital; Clinical Pharmacology and Pharmacy, Department of Public Health, University of Southern Denmark & OPEN, Odense Patient Data Explorative Network, Odense University Hospital, Odense, Denmark

c Pharmacist, Hospital Pharmacy Funen, Odense University Hospital, Odense, Denmark

d Pharmacist, Hospital Pharmacy Funen, Odense University Hospital, Odense, Denmark

e Associate Professor, Hospital Pharmacy Funen, Odense University Hospital & Clinical Pharmacology and Pharmacy, Department of Public Health, University of Southern Denmark, Odense, Denmark

Abstract

Background: Medical treatment is often prescribed to patients for acute or chronic conditions during hospital admission. Upon discharge, patients must be prepared to manage their medication at home to promote recovery and avoid readmission.

Objective: To investigate the patient experience of information about medication in relation to admission in a general surgical ward when a patient-centered medication counseling upon discharge was compared with usual care.

Methods: A comparative study with qualitative interviews (n=10) was performed using a phenomenological-hermeneutic approach. The intervention was performed by 2 pharmacists and comprised patient information, medication reconciliation, physician discussion, patient counselling, written information to primary care physician and telephone follow-up after discharge.

Results: The study revealed 3 themes: firstly, "who keeps the main thread?" was about patients' experiences of lack of information and a concern of whether the health professionals collaborated and informed each other about observations and treatment plans; secondly, "being put out of act" reflected patients' experiences of losing control of the situation due to their illness, health professionals and guidelines; thirdly, "to take the lead" was related to how patients acted to avoid medication errors and continue an ongoing treatment.

Conclusion: A patient-centered medication counseling delivered by pharmacists upon discharge did not improve patient experiences of information about medication. The patients experienced a series of encounters with unfamiliar health professionals which resulted in patients not requesting the needed information about medication and treatment plans.

Keywords

Clinical pharmacy, discharge, discharge planning, Goffman, healthcare professionalism, medication adherence, medication counseling, medication reconciliation, patient experience, patient information, patient satisfaction, person-centered healthcare, pharmacist, self-administration of medication, self-medication

Correspondence address

Dr. Helen Schultz, Surgical Department, Odense University Hospital, J.B. Winsløvs Vej 4, 5000 Odense C, Denmark.

E-mail: helen.schultz@rsyd.dk

Accepted for publication: 15 November 2018

Introduction

Medical treatment is often prescribed to patients for acute or chronic conditions during hospital admission. In addition, ongoing medical treatment might be changed. Patients' return to home after hospitalization happens "quicker and sicker" [1] and consequently, patients must

be prepared to manage their medication at home after discharge to promote recovery and to avoid readmission.

It is well recognised that inadequate preparation for medical treatment after discharge may result in patients experiencing medication errors and adverse drug events [2,3] as patients may be confused about changes in their medication initiated during admission [4,5]. Consequently, patients may not take their drugs as intended or not take

them at all [3] which can lead to an increased frequency of contacts with healthcare services in primary as well as secondary care [6]. Further, inadequate information about medical treatment after discharge frequently leaves patients feeling dissatisfied with their course of discharge [5,7].

Studies of discharge from general surgical wards have reported that lack of or vague information about self-care can result in confusion about medication, pain management and the recovery process [8-10] as well as difficulties with self-care [1,11,12]. Additionally, studies have shown that general surgical patients need specific and practical information about pain management, activity and nutrition and that they are less likely to consult healthcare services after discharge when sufficient information is provided [11,13].

Medication reconciliation and patient counselling interventions conducted by pharmaceutical staff have been investigated as an approach to decrease drug-related problems following discharge [14]. Studies have reported that such interventions may improve medication adherence [14] and patient satisfaction [15]. Further, they may reduce medication errors [14], adverse drug events [16], readmission rates [14,17-20] and mortality [14,16]. However, the effect of the interventions are difficult to compare as they vary in terms of number and type of interventions, content and duration of counselling and patient characteristics [14].

The aim of the present study was to investigate the patient experience of information about medication in relation to admission in a general surgical ward when a patient-centered medication counseling delivered by pharmaconomists upon discharge was compared with usual care.

Methods

Design

We conducted a comparative qualitative study with interviews as part of a randomized controlled trial. The randomized controlled study itself has been described in detail elsewhere. The study took a phenomenological-hermeneutic approach and was inspired by the work of the French philosopher Paul Ricoeur on narratives and interpretation [21,22].

Setting

The study was performed in a 20-bed general surgical ward at Odense University Hospital in the Region of Southern Denmark, receiving elective and acute patients with lower gastrointestinal conditions such as colorectal cancer, inflammatory bowel diseases and complex fistulas.

Before admission of elective patients, a pharmaconomist collected the medication history of each patient. Assistance from the surgeon was requested if a mismatch was found between information from the patient and the medical file on use of medication.

Usual care

During admission and at discharge, information and counseling about medication were provided to the patients *ad hoc* by nurses and surgeons. A discharge coordinator nurse organized the discharge in collaboration with the patient and other relevant health professionals from primary and secondary care. Patients included in the study intervention did not receive *ad hoc* counseling about medication by a nurse at discharge.

Intervention

Initially, a broad outline of the intervention was proposed based on the experiences of 2 pharmaconomists working within the surgical ward. Thereafter, the details of the intervention were composed through a workshop with participation of pharmaconomists, clinical pharmacists, primary care pharmacists and healthcare researchers. This workshop aimed to explore how different health professionals (from primary as well as secondary care) experience and handle problems related to patients' lack of knowledge on their medication following discharge.

The final intervention (Figure 1) was carried out by 2 pharmaconomists and comprised patient information about the medication counseling the day before discharge, medication reconciliation, discussion with physician, patient counseling at discharge, medication report to the patient's primary care physician and telephone follow-up to the patient 3 days after discharge. The discharge counseling included hand out of an updated print of the medication list that was reviewed with the patient in terms of indication and precautions of the medication. In addition, the patient received a written summary of the counseling and a direct telephone number to the pharmaconomist performing the counselling. The intervention was pilot tested and refined at another surgical ward within the surgical department for 10 weeks prior to the study.

Participants

From the 64 patients entering the randomized controlled trial, we sampled 10 patients, 5 patients in the control group (PC) and 5 patients in the intervention group (PI). The inclusion criteria were patients being above 18 years of age, Danish speaking and discharged from the general surgical ward. Patients suffering from cognitive impairment were excluded. Inclusion took place Monday-Friday, 8:00-16:00, during November-December 2017. Inclusion was performed by the pharmaconomist on duty at discharge or through a telephone follow-up for all patients by a research pharmacist 7 days after discharge. Participant characteristics are shown in Table 1. The mean length of hospital stay was 6 days (range: 3-10 days) and 10 days (range: 5-14 days) in patients sampled from the control and intervention group, respectively.

Figure 1 Flowchart detailing the intervention

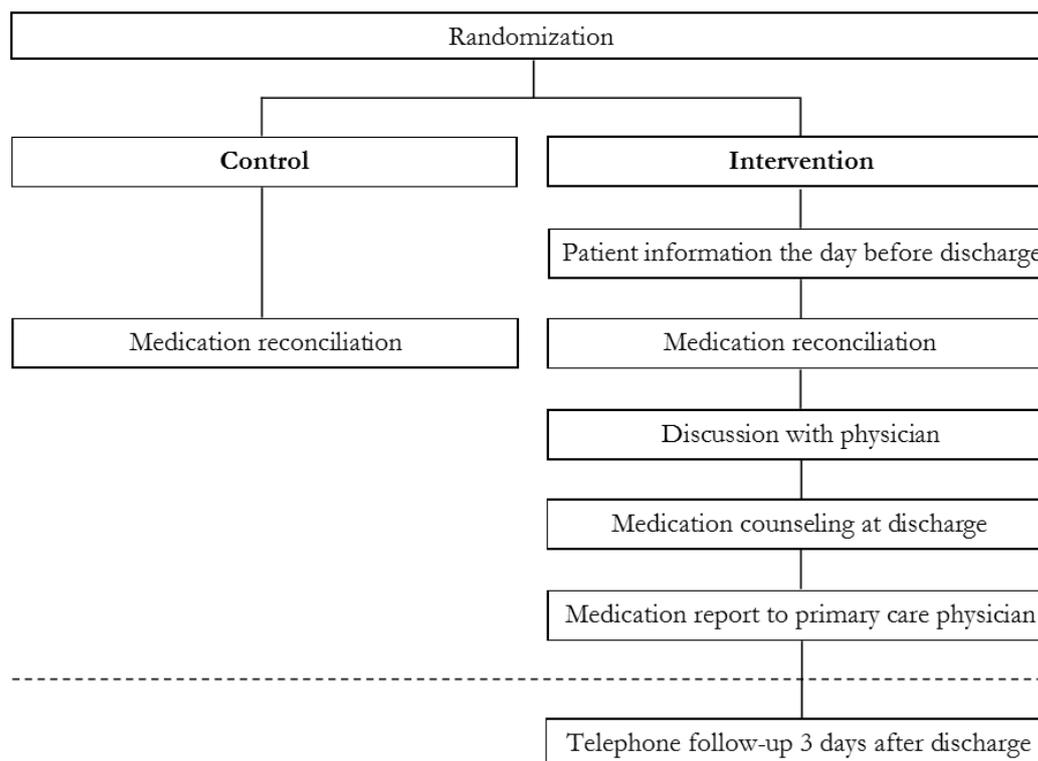


Table 1 Characteristics of participants

	Control group n=5	Intervention group n=5
Male	5	4
Age, years		
50-59	0	2
60-69	3	1
70-79	2	2
Diagnoses		
Inflammatory bowel disease	0	2
Colorectal cancer	4	3
Ileus	1	0
Underwent surgery	5	4
Type of surgery		
Formation of stoma	0	2
Closure of stoma	3	2
Hemicolectomy	1	0
Ileus	1	0

Data collection

Interviews were conducted by HS 8-14 days after discharge. Focus was on information and administration of medication and interaction with health professionals in relation to medication during admission and after

discharge. The interviews were opened with the following lines: “I would like to talk to you about your experiences on information about medication in relation to your admission. Tell me about the first time you talked to a health professional about your medication in relation to your admission”. Following this, open-ended questions were used to explore the patients’ experiences.

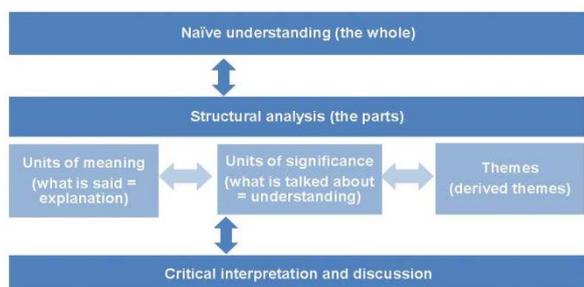
In the control group, 3 patients were interviewed in their own home while 2 interviews were performed at the hospital. In the intervention group, all interviews were performed in the patients’ home. Only the patients were invited for the interview; however, the spouse of 3 of the patients in each group also participated in the interview. The presence of the spouses was accepted and comments from the spouses were included in the analysis of data. The interviews lasted between 21-72 minutes (mean: 39 minutes) and were audio recorded.

Data processing

The transcript interviews were transferred to the program NVivo® (version 11; QSR International Pty Ltd.). Data were systematised during analysis of the Ricoeur-inspired method with analysis and interpretation on 3 levels: naïve reading, structural analysis and critical interpretation and discussion (Figure 2).

The naïve reading gives an initial overall impression of data. Interviews were repeatedly read to gain a holistic understanding of the text. According to Ricoeur, one listens for what moves or touches one [21,22].

Figure 2 The 3-level process of analysis and interpretation [22]



A *structural analysis* followed the naïve reading. The text was structured by units of meaning (what is said) and units of significance (what is being talked about). Themes emerged from this process (Table 2). The process of structuring units of meaning, structuring units of significance and extracting themes is a dialectic process where the analysis moves forward and backwards from these 3 stages in order to substantiate the basis and argumentation for the emerging themes. The themes are reflected against the background of the naïve understanding to see whether they validate or invalidate the naïve understanding. If the structural analysis invalidates the naïve understanding, the whole text is read again and a new naïve understanding is formulated and checked by a new structural analysis [21,22].

In the *critical interpretation and discussion*, the themes that emerged were further analysed, interpreted and discussed in relation to other research results. This stage of the analysis is concerned with movement from the individual to the general [21].

Ethical considerations

The study was approved by the Danish Data Protection Agency (approval 17/18948). No further ethical approval was required. The participants received oral and written information about the study before consent to participation in the study was given. The participants were guaranteed anonymity.

Results

Three themes emerged from the naïve reading and the structural analysis. One theme, “who keeps the main thread?”, was about patients’ experiences of lack of information and a concern of whether the health professionals informed each other about observations and treatment plans. A second theme, “being put out of act”, reflected patients’ experiences of losing control of the situation due to illness, health professionals and guidelines. The third theme, “to take the lead”, was about how patients acted to avoid medication errors and continue an ongoing treatment. Table 2 shows examples of how the themes emerged.

Who keeps the main thread?

The patients were concerned about whether the main thread of the treatment was kept, as they could experience lack of information about the medication and be concerned about whether the health professionals informed each other about observations and treatment plans. Two subthemes emerged within this theme: *confusion and doubts* and *they talk together?*

Confusion and doubts

All patients, except one from the control group, expressed some kind of confusion and doubts about the medical treatment. During the admission, the confusion concerned lack of information about indication for a drug, use of drugs not matching the patient’s knowledge, hand out of non-prescribed medication used at home, for example, vitamins, changes in medication and opposed information about the treatment:

“In the minute you say the word “Ipren”, most doctors say (...) that you have to keep away from it as far as possible, because it’s not good for your stomach, it can give you ulcer and everything is in the matter, however, they have prescribed it this time as well (...), and then you get confused, also because I was discharged very early (...) then you are a little nervous and tensed” (PI5).

The quote illustrates that confusion and doubt could increase after discharge if the patients were not clarified about the medical treatment during admission. Patients in both groups experienced being weak and vulnerable at return to their home but accepted the time for discharge.

After discharge, 2 patients from the control group needed explanation about medical treatment provided during admission, as this quote illustrates:

“I woke up one night (...), I couldn’t figure out where I was. I thought; what is happening here? (...), then I tore everything out (...), they had put up a drip and a bag for the urine (...), in return I had no pain (...), but to wake up like this is like the control is taken away from you (...), I have no idea of why it happened (cries quietly)” (PC5).

This quote reflects that lack of information about side-effects of medication can have profound impact on the patients.

After discharge, 2 patients from the intervention group had doubts about analgesia which resulted in contact to hospital or general practitioner. The doubts concerned drugs having different tradenames, indication for a drug, weaning from morphia and side-effects of analgesia appearing after discharge.

The patients experienced that the study intervention did not provide new information about the medication but could be a nice reminder of the use of a drug. It gave one patient the impression that everything was under control which provided confidence, 2 patients described the intervention as “fine” and “okay” but not needed and 2 patients could hardly remember the content of the conversation.

Table 2 Examples of the systematic process in the structural analysis

Units of meaning (what is said)	Units of significance (what is being talked about)	Theme (derived theme)
<p>Spouse: We got this print (at discharge) (...), here Pamol is marked, but it says something else here (Paracetamol), so it doesn't match. P: Isn't it the same? Spouse: No Interviewer: It's exactly the same. Spouse: Oh, (...) it made me a little worried when we didn't know that. (PI2).</p> <p>Metformin is the one that makes the blood sugar enter the cells, but with my diabetes 2 you produce insulin (...), however, you cannot make it penetrate into the cells, which metformin is supposed to help with, so I think it was weird that I suddenly should have insulin (PC2).</p> <p>I had some nights where I sweat like crazy (after discharge) (...), but I don't know if it has something to do with the drugs (PC1).</p> <p>I arranged with the nurses that I took my own lansoprazol, because at that time they didn't believe that they had lansoprazol, while another nurse said that they did (...), then suddenly there was lansoprazol with the medication they handed out (...). The nurses wrote to the pharmacists, who dispense the medicine, that there was an error again (...), it was something about that (...) it had not been prescribed correctly by the doctors (PI1).</p> <p>P: (the anesthesiologist) told me (...) that I should turn up without my metformin, but they might have said, that then we use insulin instead. Spouse: Yes, they should have informed us about that, because I was very... P: (...) I was told to bring my own medication (...), I should continue to take them, but I never got to that (...), I think I was a little confused (PC3).</p>	<p>Confusion and doubts: - <i>Getting the right medication?</i></p> <p>- <i>Existing knowledge does not match treatment</i></p> <p>- <i>Are my symptoms side-effects of the medicine?</i></p> <p>Do they talk together: - <i>In the ward</i></p> <p>- <i>Between the wards</i></p>	<p>Who keeps the main thread?</p>
<p>Most of it was drip (the first couple of days), I was almost halfdead (laughing) (PC2).</p> <p>They don't ask for your name or social security number, they never do, they just put it (the pills on the bedside table), and sometimes you could be out to eat or on the toilet, then it's just there when you return (PC2).</p> <p>You cannot do anything during the night (...) you can tell a nurse, that you're in pain, but it doesn't solve anything (...), she gives you something in the one in the hand [the plastic cannula], and she knows the effect lasts for 10 minutes and then she can get away, and there you go again (...), she doesn't want to disturb the doctor (PI4).</p> <p>I brought 1½ L methadone and 100 Oxynorm to the hospital, (a letter) informed me that I should bring all my medication. Then I ask to have it stored, but they were not allowed to store it in the medicine room, when it had been in the patients' room (PI1).</p>	<p>Put out of act by illness</p> <p>Put out of act by professionals</p> <p>Put out of act by guidelines</p>	<p>Being put out of act</p>
<p>I looked (in the cup) to see what was in it (laughing), because I want to know what I'm eating (PC5).</p> <p>(If I had controlled my own medication) then I wouldn't have got this mucus, I wouldn't have got hiccups (...) if everything had been in order (...) then I would not have been annoyed (...), but this time I was struck (too struck to manage self-administration of medication) (PI4).</p> <p>I should have had some anticoagulants (Fragmin) which I haven't taken, as I'm not in the risk group (...) I'm already full of chemicals (PC4).</p>	<p>Checking the medication</p> <p>Self-administration of medication</p> <p>Self-medication</p>	<p>To take the lead</p>

Do they talk together?

The patients' experiences of confusion and doubts were closely related to an experience of insufficient communication between health professionals in the ward as well as between hospital wards. Three patients in the

control group and 4 in the intervention group requested more communication between health professionals in the ward. However, satisfied patients were alert and could express their experience of the communication in this way:

"I have experienced it extremely positive (...), you have heard about that overdoses have found place, one says; we need this, and the next one says; but we need to have even more of it, and the third one says; yes yes, we just have to pour. This, I have heard, but I feel that they knew what each one was doing" (PI3).

In the control group, one patient experienced that confusion about medication could be caused by lack of communication between different wards at the hospital, whereas this concerned 3 patients in the intervention group:

"I have talked to several patients and they say; we are not that nervous about what they (the health professionals) are telling us, like they're talking about in the TV and everything, that the doctor should be better to talk to the patient (...), no, we are afraid of that they are not talking with each other. That's the problem. We believe we have a medical file they are looking in, but for a doctor the medical file is only from his ward and not from another ward" (PI4).

The lack of communication or insight into each other's notes could result in changes in the patients' usual medication as the surgeons were not aware of reasons for prescribing specific drugs.

The patients experienced sufficient communication between ward and pharmacy; however, one spouse from the control group had difficulties with collecting prescribed morphine to the patient after discharge. In the intervention group, one patient was prescribed an incorrect drug, but it was corrected the day after discharge. All patients generally experienced very useful advices on the medication at the pharmacy.

Being put out of act

The patients could be put out of act by illness, health professionals and guidelines during the admission. All patients in both groups experienced being affected by illness the first days of admission and could not pay attention to medication.

To be put out of act by the health professional was experienced by all patients in both groups and concerned lack of information about the medication and health professionals' attitudes towards the patient. Limited information about the medication at administration of the drugs was experienced by 4 patients in the control group and 3 patients in the intervention group, and was articulated in this way:

"They just came and said that they had some pills for me and that I should take them" (PI2).

Patients receiving limited information about medication at administration got more medication than those who perceived to be more well-informed. In addition, informed patients mainly received standard products as paracetamol, magnesiumoxid and insulin.

Of the patients receiving limited information about the medication, 3 patients in the control group and 2 in the intervention group accepted this procedure, as they

considered it as routine at hospital or because they recognized the drugs. Overall, the patients restricted their questions to nurses about the medication because they did not want to disturb the busy nurses, assumed that the nurses could not answer straight ahead, wanted to adapt to the routines at the hospital and were depended on the health professionals:

"You're entrusted to other peoples' goodwill (...), in this situation you are the human being getting helped, and then you don't walk all over them and try to be rude, on the contrary, to some extent you hold yourselves back and try not to disturb" (PI4).

The quote reflects that patients could be concerned about affecting the health professionals' attitudes towards the patient in a negative direction.

The attitudes of the health professionals could make the patients feel that they were put out of act. It was described by 2 patients in the intervention group when nurses deviated from the treatment plan and did not take the patients' experiences of pain seriously, as this quote illustrates:

"A nurse (...) gave me 10 mg (morphine) when I was supposed to have 20 (...) and then of course it didn't have the effect it was supposed to (...), I got really mad (...), because she did it without telling me, and then I feel like a little child from kindergarten" (PI1).

Finally, the patients could be put out of act by guidelines. Prior to admission all elective patients were informed to bring own medication to the hospital, but at the hospital the medication was not used and could not be stored safely.

To take the lead

Even though the patients experienced to be put out of act and tried to adapt to the routines at the hospital, they could take the lead of the situation to avoid medication errors, continue ongoing treatment and weaning from medication. The initiatives concerned checking the medication, self-administration of medication and self-medication.

Checking the medication that was handed out by the nurses during admission was performed by 3 patients in the control group and 4 patients in the intervention group. They checked whether the number of pills were correct, administered at the right time and had a recognizable look. During the interviews, most patients laughed a little when admitting that they checked the medication. One patient checked the medication to be informed about the treatment while the rest did it to avoid medication errors:

"Sometimes it seems chaotic the way it (the medication) is administered; 'oh yeah, I guess you're not supposed have this (medication)' (...). You really have to be awake otherwise something will go wrong" (PC2).

Patients who did not check the medication explained that they trusted the administration by the nurses or were sufficiently informed about what was in the cup.

Self-administration of medication during admission was performed by 2 patients in the intervention group. One patient took the initiative to avoid medication errors and continue an ongoing treatment:

“Finally I asked to get my medication handed out in a pillbox (for 24 hours). I have controlled my medication for many years, I’m not used to ask for (it) (...), usually I take my medication at certain times (...), I begin very early in the morning, otherwise I cannot get out of bed” (PI1).

Self-administration improved the experience of having a hold on the medical treatment for this patient while it did not affect the experience for another patient performing self-administration through the initiative of nurses. A third patient in the intervention group would have preferred to perform self-administration, but felt too affected by illness to manage it.

Self-medication during admission was also an initiative to take the lead of the medication to avoid medical errors and continue ongoing treatment. It was performed by 2 patients in the intervention group of which one did not inform the health professionals:

“They came with something, then I said; this is not Oxycontin (oxycodon), and neither is this one, they look like this, this or this, they have different looks, but not like that one (...), then I took one of my own (...) I had smuggled some of my own medication (to the hospital) (...) I have tried it so many times, I do know when I have had to many, then the walls get another color (...) and we don’t think this is funny, we take exactly what is needed and preferable a little less” (PI4).

Self-medication after discharge concerned mainly antibiotic and analgesia. All patients but one from the control group received post-operative analgesia at discharge. Two patients in the intervention group had received a plan for weaning from morphine but stopped earlier than scheduled. Patients in the control group used only morphine as *pro re nata* (PRN). All patients were eager to reduce or end the use of analgesia because of side-effects, it prevented them from driving and not wanting “chemicals”. Most patients were proud if they could avoid medication but recognized that it could be a necessary evil helping to recover from illness, as one patient that had been through chemotherapy expressed it:

“I have eaten 2500 pills (...) but then I have been given the opportunity to live” (PC1).

Administration of usual medication of the patients after discharge was not experienced as an issue for any of the patients. When the post-operative treatment with antibiotic and analgesia ended, 2 patients in the control group would receive 1-3 drugs and 4 patients in the intervention group would receive 2-6 drugs.

Discussion

This qualitative study explores surgical patients’ experiences of information about medication when a patient-centered medication counseling is provided by pharmaconomists upon discharge. Two major findings emerged. First, there was no difference in patient experience of information about medication upon discharge for patients receiving a patient-centered medication counseling delivered by pharmaconomists compared with patients receiving usual care. Second, patients in both groups experienced being put out of act during admission and, despite not entirely understanding or being satisfied with the routines in relation to medication at hospital, the patients tried to adapt and checked their medical treatment.

The first major finding about medication counseling upon discharge not improving the patient experience of being informed about medication might be caused by patients being sufficiently informed about their drugs by the time of discharge. This argument could be supported by the fact that patients in the intervention group, receiving permanent medical treatment, had been treated with their drugs during a longer period and received only 2-6 drugs. The only additional drugs prescribed by the time of discharge were antibiotic and analgesia which most of the patients were familiar with. However, it was the analgesia that resulted in confusion and doubts after discharge and led to unscheduled contact to a healthcare service. This finding has also been reported in other studies of surgical patients [1,8,11] and could therefore indicate a need for a specific counseling about the use of analgesia after discharge, including information about potential side-effects and how to react to them. One study of surgical patients also reported that nurses only informed patients about side-effects when they appeared during admission [23]. However, our study shows that this can result in uncertainties for patients after discharge. Further, our findings, with patients being insecure about medication not being part of a permanent treatment, in need of weaning and in need of patients’ assessment of the effect of the drug, could indicate that those patients need counseling. Finally, counselling or a conversation about the medical treatment provided during the admission might be needed upon discharge. Following discharge, two patients in the control group were concerned about their health as they did not understand either the connection between the medical treatment and their disease (diabetes) or an unpleasant reaction caused by medication.

The second major finding concerned a patient experience of being put out of act during admission and, despite not entirely understanding or being satisfied with the routines at the hospital, the patients tried to adapt and checked their medical treatment. Other studies have reported similar findings with patients trying to adapt to hospital routines despite their needs not being fulfilled, for example, regarding insufficient pain management [24,25]. This phenomenon could be explained by what the Canadian-American sociologist Ervin Goffman terms “impression management”. This is, that a person tries to

control the impression which other individuals get of him/her and to ensure that the other person is able to control and present her/his impression. Impression management takes place in order not to make any participant in the encounter lose face which is related to feelings of shame [26]. In the current study, this means that the patients tried to make health professionals get the impression that the patients behaved as expected of a "good patient" by not "walking all over" the professionals and being "rude". In addition, patients were interested in health professionals maintaining the character of professional healthcare workers fulfilling their jobs in order to maintain an image of, despite all, being in safe hands. If the patients asked all kinds of questions about the medication that the health professionals could not answer, the professionals might lose their impression as such.

Impression management unfolds at a maximum at what Goffman terms the "front-stage" which illustrates a stage on a theatre where participants in the play are wearing masks and act their role in order to fulfil what is expected by the role. The front-stage is a metaphor for a social setting where the participants are unfamiliar with each other and play a character based on the social norms [26]. In our study, the patients were in a fairly unfamiliar setting by being hospitalized. The patients had a series of encounters with unknown health professionals similar to many "front-stage" situations, where the patients would not request the information they needed, or critique the routines as their behaviour would be judged by one encounter only. When patients during the interviews laughed a little when admitting that they were checking the medication, it could represent an uncertainty of whether this act was socially acceptable. Checking the medication and performing self-medication secretly were signs of patients trying to maintain an ideal image of a patient and a health professional, but also how unfamiliar the patients experienced the professionals.

Goffman also describes another social situation or stage, the "back-stage", where the atmosphere is more relaxed because the individuals know and trust each other. Consequently, they can mainly be themselves because they will not be judged by one action only as they know what each other represents as an individual [26]. In our study, this social situation was very limitedly represented.

Strengths and Limitations

A strength of the study was that the study intervention was developed through a collaboration between health professionals from primary and secondary care. This was done in order to explore how health professionals from both sectors experience and handle problems related to patients not being sufficiently informed about their medication following discharge. A limitation was that patient representation was not a part of the collaboration.

This study investigated the patient experience through interviews with open-ended questions; therefore, only the issues the patients experienced as relevant for them and the study were discovered. The open-ended questions may have meant that the patients did not talk about the information they received or the experiences they had during admission and after discharge. This might be

because the patients did not consider these issues as important, did not remember them, or did not want to talk about them; for example, if the patients did not follow a given advice.

Other limitations of the study were that the number of participants was relatively small, most participants were men and inclusion did not take place in the evening and during the weekend where experiences of discharge might have been different.

Implications for practice

A number of issues must be identified before a patient-centered medication counselling delivered by pharmaconomists upon discharge might be recommended. One issue is the identification of which patients are in need of counselling. A larger study may reveal whether, for example, patients with polypharmacy or patients being prescribed several new drugs, including analgesia, during admission, can benefit from counselling.

Another issue is how the counselling is approached. It seems likely that patient-centered counselling requires some kind of familiarity between the patient and health professional before the patient and clinician provide all needed information. In addition, a health professional knowing the patient might find it easier to follow-up on issues or symptoms. Future studies could explore whether a continuous contact with one pharmaconomist during the admission and upon discharge might improve the patient experience. Another option could be pharmaconomists and pharmacists providing further education and supervision to nurses through which the patients might receive more information about their medication during admission.

Conclusion

Our study showed that a patient-centered medication counseling delivered by pharmaconomists upon discharge in a general surgical ward did not improve patients' experiences of information about medication. The patients experienced a series of encounters with unfamiliar health professionals which resulted in patients not requesting information about medication and treatment plans that was needed.

Acknowledgements and Conflicts of Interest

This study was funded by Danish Regions and Sundhedskartellet's Development and Research Foundation. The authors have no conflicts of interest to declare.

References

- [1] McMurray, A., Johnson, P., Wallis, M., Patterson, E. & Griffiths, S. (2007). General surgical patients' perspectives

- of the adequacy and appropriateness of discharge planning to facilitate health decision-making at home. *Journal of Clinical Nursing* 16, 1602-1609.
- [2] Forster, A.J., Murff, H.J., Peterson, J.F., Gandhi, T.K. & Bates, D.W. (2003). The incidence and severity of adverse events affecting patients after discharge from the hospital. *Annals of Internal Medicine* 138, 161-167.
- [3] Coleman, E.A., Smith, J.D., Raha, D. & Min, S. (2005). Posthospital medication discrepancies: prevalence and contributing factors. *Archives of Internal Medicine* 165, 1842-1847.
- [4] Eassey, D., McLachlan, A.J., Brien, J., Krass, I. & Smith, L. (2017) "I have nine specialists. They need to swap notes!" Australian patients' perspectives of medication-related problems following discharge from hospital. *Health Expectations* 20, 1114-1120.
- [5] Knight, D.A., Thompson, D., Mathie, E. & Dickinson, A. (2013). 'Seamless care? Just a list would have helped!' Older people and their carer's experiences of support with medication on discharge home from hospital. *Health Expectations* 16, 277-291.
- [6] Al-Rashed, S.A., Wright, D.J., Roebuck, N., Sunter, W. & Chrystyn, H. (2002). The value of inpatient pharmaceutical counselling to elderly patients prior to discharge. *British Journal of Clinical Pharmacology* 54, 657-664.
- [7] Clark, P.A., Drain, M., Gesell, S.B., Mylod, D.M., Kaldenberg, D.O. & Hamilton, J. (2005). Patient perceptions of quality in discharge instruction. *Patient Education and Counseling* 59, 56-68.
- [8] Schultz, H., Qvist, N., Mogensen, C.B. & Pedersen, B.D. (2014). Discharge from an emergency department observation unit and a surgical assessment unit: experiences of patients with acute abdominal pain. *Journal of Clinical Nursing* 23, 2779-2789.
- [9] Sibbern, T., Bull Sellevold, V., Steindal, S.A., Dale, C., Watt-Watson, J. & Dihle, A. (2017). Patients' experiences of enhanced recovery after surgery: a systematic review of qualitative studies. *Journal of Clinical Nursing* 26, 1172-1188.
- [10] Odom-Forren, J. & Wesmiller, S. (2017). Managing Symptoms: Enhancing Patients Self-Management Knowledge and Skills for Surgical Recovery. *Seminars in Oncology Nursing* 33, 52-60.
- [11] Williams, B. (2008). Supporting self-care of patients following general abdominal surgery. *Journal of Clinical Nursing* 17, 584-592.
- [12] Yiu, H.Y., Chien, W.T., Lui, M.H. & Qin, B. (2011). Information needs of Chinese surgical patients on discharge: a comparison of patients' and nurses' perceptions. *Journal of Advanced Nursing* 67, 1041-1052.
- [13] Pieper, B., Sieggreen, M., Freeland, B., Kulwicki, P., Frattaroli, M., Sidor, D., Palleschi, M.T., Burns, J., Bednarski, D. & Garretson, B. (2006). Discharge information needs of patients after surgery. *Journal of Wound, Ostomy and Continence Nursing* 33, 281-289.
- [14] Bonetti, A.F., Reis, W.C., Lombardi, N.F., Mendes, A.M., Netto, H.P., Rotta, I., Fernandez-Llimos, F. & Pontarolo, R. (2018). Pharmacist-led discharge medication counselling: A scoping review. *Journal of Evaluation in Clinical Practice* 24, 570-579.
- [15] Reichard, J.S., Savage, S. & Eckel, S.F. (2015). Pharmacy-Initiated Transitions of Care Services: An Opportunity to Impact Patient Satisfaction. *Hospital Pharmacy* 50, 911-917.
- [16] Al-Hashar, A., Al-Zakwani, I., Erikson, T., Sarakbi, A., Al Zadjali, B., Al Mubaihsi, S. & Al Zaabi, M. (2018). Impact of medication reconciliation and review and counselling, on adverse drug events and healthcare resource use. *International Journal of Clinical Pharmacy* 40 (5) 1154-1164.
- [17] Chiu, P.K., Lee, A.W., See, T.Y. & Chan, F.H. (2018). Outcomes of a pharmacist-led medication review programme for hospitalised elderly patients. *Hong Kong Medical Journal* 24, 98-106.
- [18] Aniemke, E., Crowther, B., Younts, S., Hughes, D. & Franco-Martinez, C. (2017). Clinical Pharmacy Discharge Counseling Service and the Impact on Readmission Rates in High-Risk Patients. *Hospital Pharmacy* 52, 348-352.
- [19] Mekonnen, A.B., McLachlan, A.J. & Brien, J.A. (2016). Effectiveness of pharmacist-led medication reconciliation programmes on clinical outcomes at hospital transitions: a systematic review and meta-analysis. *BMJ Open* 6, e010003.
- [20] Ravn-Nielsen, L.V., Lund, M.L., Henriksen, J.P., Nielsen, M.L., Eriksen, C.S., Buck, T.C., Pottegård, A., Hansen, M.R. & Hallas, J. (2018). Effect of an In-Hospital Multifaceted Clinical Pharmacist Intervention on the Risk of Readmission: A Randomized Clinical Trial. *JAMA Internal Medicine* 178, 375-382.
- [21] Pedersen, B.D. (1999). *Sygeplejepsis, Sprog & Erkendelse [Nursing Practice, language and cognition]*. Aarhus: Aarhus University.
- [22] Lindseth, A. & Norberg, A. (2004). A phenomenological hermeneutical method for researching lived experience. *Scandinavian Journal of Caring Sciences* 18, 145-153.
- [23] Schultz, H., Maagaard, C., Hamid, H. & Qvist, N. (2019). The perspectives of health care professionals on self-administration of medication - a field study in a general surgical ward. *European Journal for Person Centered Healthcare* 7 (1) 75-84.
- [24] Schultz, H., Qvist, N., Mogensen, C.B. & Pedersen, B.D. (2013). Experiences of patients with acute abdominal pain in the ED or acute surgical ward - a qualitative comparative study. *International Emergency Nursing* 21, 228-235.
- [25] Frank, C.M., Asp, M. & Dahlberg, K. (2009). Patient participation in emergency care - a phenomenographic study based on patients' lived experience. *International Emergency Nursing* 17, 15-22.
- [26] Goffman, E. (1990). *The Presentation of Self in Everyday Life*. London: Penguin Books Ltd.