

Older Individuals' Experiences of Medication Management and Care After Discharge from Hospital: An Interview Study

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Purpose: To develop an in-depth understanding of older individuals' attitudes and perceptions of medication management and care after discharge from hospital-to-home.

Patients and Methods: A qualitative study using semi-structured interviews with selected individuals 75 years and older, discharged from hospital within the last 6–12 months, living at home, and managing their own medications. Face-to-face interviews were audio-recorded, transcribed and analyzed with thematic analysis.

Results: Among the 15 respondents, mean age was 83.5 years (range 75–95 years), 67% were women, and 60% lived alone. The majority (80%) managed their medications with a pill organizer or directly from the pill boxes, while 20% used dose dispensed medications. The analysis of the data led to six themes: Medication adherence, Personal responsibility, Transitions of care, Beliefs about medications, Participation (experience of participation, willingness to participate) and Accessibility (easier to reach hospital than primary care, navigating in the care system, continuity, personal chemistry).

Conclusion: The included respondents who were older individuals, living at home and managing their own medications, expressed that they were medical adherent and self-managing. Two important aspects which were seen were difficulties to reach primary care on their own initiative and the lack of continuity with the same physician over a longer period of time.

Keywords: medication adherence, qualitative research, transitional care, shared decision making, self management

Introduction

Transitions of care, when people are transferred from hospital-to-home, is a troublesome area, and it is also one of the key action areas highlighted by World Health Organization (WHO).^{1,2} In transitions of care, medication changes are common and medication-related problems (MRPs) may occur.¹ This may especially be pronounced among older individuals who are at increased risk of multi-morbidity and polypharmacy, and hence, at increased risk of medication discrepancies.³ Besides discrepancies, medication non-adherence is another example of MRPs that may arise in the area transition of care. There are many factors associated with non-adherence, one review of systematic reviews found a total of 80 factors in older individuals.⁴ Another study found that primary non-adherence, defined as failure to fill one or more new prescriptions within one month of hospital discharge, has been found associated with having difficulties with memory.⁵ Also, individuals with chronic diseases often show high rates of medication non-adherence.^{6–8} Negative beliefs about medications have been shown more common among non-adherent individuals, and these individuals also considered their drug treatment as less useful.⁹

Previous studies have found that older individuals often are confused about the reasons for changes made in their medication regimens in transitions of care.¹⁰ It has also been reported that older individuals often hesitate to ask questions to the health professionals about the medication changes.¹¹ For older individuals' understanding and self-care after discharge it is important that they are informed on why and how they are supposed to take their medications.¹

Good continuity and caring relationships with health professionals support older individuals' self-confidence in managing their medications independently at home. Thus, the involvement of the patients in the decisions regarding their care and prescribed medications is widely accepted as a core feature of good health care.^{12,13} In for example UK, principle 4 of the National Health Service (NHS) constitution states that "Patients, with their families and carers, where appropriate, will be involved in and consulted on all decisions about their care and treatment".¹⁴ As shared decision-making has been acknowledged to not always applied in everyday practice in UK, the National Institute for Health and Care Excellence (NICE) has recently published a guideline in order to increase patients' opportunities for decision-making.^{15,16}

Older people often have multiple chronic diseases resulting in polypharmacy. This may result in having difficulties with their self-management of medications. A particularly vulnerable group may be those who are healthy enough to live at home but still sick enough to have been hospitalized. There is currently a lack of studies focusing on older adults' attitudes and perceptions on medication adherence and self-management in the transition between hospital and primary care.^{1,17} Hence, we aimed to develop an in-depth understanding of older individuals' experiences of medication management and care after discharge from hospital-to-home, with focus on transitions of care, attitudes, perceptions, participation, and accessibility of care.

Materials and Methods

Study Design

The design of this study involves in-depth, individual interviews.¹⁸ The study was conducted with an inductive approach using semi-structured interviews.

Participant Recruitment and Sampling

This study was based on individuals over 75 years of age that were discharged from a university hospital located in northern Sweden. The hospital provides specialized medical services for about 876,000 people.¹⁹ The uptake of the hospital comprises more than half of Sweden. This study was based on an ongoing intervention study where participants were admitted to internal medicine or orthopedic department.²⁰ In this interview study, participants from both wards were included to be able to conduct at purposeful sampling. The departments receive acute internal medicine and orthopedic patients 24 hours a day, all year round and have 12–24 and 18–34 nursing places, respectively. When patients are discharged from hospital-to-home, the responsibility is transferred to the primary care for follow-up and, if necessary, further care when the individual is living at home. The discharging ward should provide the primary care physician with a discharge letter containing information regarding performed changes in therapy and a request of follow-up on initiated or changed treatments.

The participants were recruited from an ongoing randomized controlled study.²⁰ In brief, the randomized study investigated if an intervention with clinical pharmacist in transition of care can reduce drug-related readmissions within the first 6 months after discharge compared with conventional care. The trial began to recruit participants in September 2018 and has a target sample size of 700 randomized individuals. Persons admitted to the internal medicine or orthopedic departments are screened for eligibility. Inclusion criteria are over 75 years of age, live at home, have an emergency admission, and registered at one of nine specified primary care centers. Individuals are excluded if they do not speak Swedish or unable to communicate, admitted due to intoxication, or scheduled for palliative care. Individuals who fulfil eligibility are visited at the hospital by a pharmacist during admission and are then invited to participate. Individuals who agree to participate sign a written informed consent and are asked to answer the 5-item version of the Medication Adherence Report Scale (MARS-5) questionnaire, in addition to background characteristics that are collected from the electronic health records. The MARS-5 questionnaire is used to assess self-reported medication adherence.^{21,22} MARS-5 has five statements of a common non-adherent behavior and the respondents rate how often they behave as described by these statements on a 5-point Likert scale. The total MARS-5 score range between 5 and 25, with higher score indicating better medication adherence.

For the present interview study, only individuals who were discharged from the hospital within the last 6–12 months were invited, in order not to interfere with the intervention study. Further, individuals were not included from the

interview study if they did not manage their own medications, had cognitive impairment or other conditions making interviews difficult. Thus, purposeful sampling was applied among eligible individuals to ascertain variation in age, sex, marital status, living in city/countryside, use of dose dispensed medications or not (prefilled medication bags), and MARS-5 score variance.

Letters of invitation were sent to possible participants with information and an invitation to participate in the interview study. The respondents were contacted and invited via telephone (HN) within a week of invitation to ask for their participation.

Semi-Structured Interviews

Semi-structured interviews were used in line with Kvale and Brinkman: An interview guide.²³ An interview guide was formulated and used in all of the interviews. An interview becomes an “inter-view, where knowledge is constructed in the interaction between two persons about a theme of mutual interest”¹⁸ The interview guide contained 24 questions and follow-up questions. The participants, or respondents, were also given the opportunity to express own thoughts and reflections at the end of the interview. For example, in the interview, the theme of medication adherence was focused using the following questions: Do you sometimes forget to take your medications?; Have you had any troubles taking your medications as your doctor has prescribed them?. In another theme, knowledge and participation, questions were: Do you feel that you have enough knowledge of why you are prescribed your medications?; Do you feel that you have been allowed to participate in the decisions about which medications you have?. In the theme of beliefs about medications, questions used were for example: How do you feel about having to use medication?; Do you think your medications are making you healthier?. In another theme, accessibility and support from health care, questions were: How easy do you feel it is to get in touch with health care if you have questions/problems with your medications? And Who do you most turn to if you have questions about your medications?

First, two pilot interviews were conducted. These interviews did not lead to any changes in the interview guide. Thereafter, fifteen face-to-face semi-structured interviews were performed in the home of the respondent or in the office (HN). The interviews lasted no more than 60 minutes. Written informed consent was collected from the respondents before the start of the interviews. The interviews were digitally recorded with the permission of the respondents. The interviews were conducted until saturation was reached.²³ The interviews were transcribed verbatim and thereafter analyzed. All of the interviews which were conducted were included in the analysis. The respondents have been given fictive names. Quotations from the interviews are presented to illustrate the interpretation of themes.

Data Analysis

Thematic analysis was applied and followed the six-phase guide as described by Braun & Clarke.²⁴ Thematic analysis has been described as a systematic method for identifying, analyzing, and reporting patterns or themes within collected data. It could also be seen as a way to organize and describe a data set in detail.²⁵ Thematic analysis often goes even further, to interpret various aspects of the chosen research topic.²⁶ The six phases in the analysis process are 1) Familiarizing yourself with the data, 2) Generating initial codes, 3) Searching for themes, 4) Reviewing potential themes, 5) Defining and naming themes and 6) Producing the report.^{25,27}

These phases were followed throughout this study and guided the work with the analysis. First, the authors familiarized themselves with the data and initial codes were generated. Transcripts were read, analyzed, and coded by the authors (HN and MHL) independently using an inductive approach. In this process, themes emerged as potential themes. The themes were defined and named. These themes were then discussed for similarity and discrepancy within and across the themes. Finally, coding discrepancies were discussed between all three authors (HN, MHL and MG) to reach consensus on the final coding and the final report was produced. Data management was supported using Excel 2016.

Ethical Aspects

This study was conducted in line with the recommendations from the Swedish Research Council,^{28,29} and was approved by the Swedish Ethical Review Authority (Reg.no. 2021-01719 and 2020-03771). The study complies with the Declaration of Helsinki. The participants in this study were provided with information and gave written consent of participation and for publication of anonymized responses. Further, the participants as individuals were informed that they would not be recognizable in the findings, therefore confidentiality and anonymity were upheld for participants.

Results

The included participants (n = 15) managed their own medications without help from others and were living at own homes (not in nursing home), yet with a morbidity requiring emergency care within the latest year. The majority of the participants have a long history of chronic diseases. Demographic data are presented in Table 1. Medical therapies are ranging from a few numbers of medications to complex treatments with up to 15–20 medications, including for example tablets, inhalers, and injections. The mean age among respondents was 83.5 years (range 75–95 years) and approximately two-thirds were women (67%). The majority (80%) managed their medications with a pill organizer or directly from the pill boxes, while 20% used dose dispensed medications. Sixty percent lived alone, while the other 40% lived with spouse. The majority lived in the city, while two participants lived at the countryside. The self-reported medication adherence, as assessed with MARS-5, was overall high with half the participants scoring 25 (range 21 to 25).

Table 1 Demographic Data of Respondents

Demographics	Respondents (n=15)
Age (years)	
Mean	83,5
Range	75–95
Sex (n, %)	
Female	10 (67)
Male	5 (33)
Living status (n, %)	
Alone	9 (60)
With spouse	6 (40)
Living place (n, %)	
City	13 (87)
Countryside	2 (13)
Dose dispensed medications (n, %)	
Yes	3 (20)
No	12 (80)
MARS-5 score (n, %)	
≥25	7 (47)
<25	8 (53)
Range	21–25

Interviews

In this section, the results of the fifteen interviews are presented. Six main themes were identified in the analysis: Medication adherence, Personal responsibility, Transitions of care, Beliefs about medications, Participation, and Accessibility. An overview of the themes and sub-themes is presented in Figure 1.

Medication Adherence

Most of the respondents expressed that they were adherent to their medications and that they had no problems in managing their medications in their daily life. Some communicated that

It is in my bones. (Karl)

And that taking their medications is included in the daily routine: No tricks.

I take them every morning. It's like drinking coffee. I remember how to drink coffee, too. (Hilda)

Other respondents explained more flexibility within what can be seen as a normal variation regarding when their medications are taken:

Sometimes it happens... it almost never happens, but it can happen, it may just be that it just is an hour or so later. This can be the case. And sometimes it has happened if I have been gone for a while and thought that I would be home before... eight o'clock. Then, it has been late an hour or so. (Olivia)

Normal variations were noted by participants, who noted practical reasons for taking medications earlier or later than prescribed.

It was common that the respondents used various aids to manage their daily medication intake, such as a tablet dispenser at home or used the service with the delivery of dose dispensed medications. A few respondents expressed problems with their medication adherence and particularly raised issues with remembering to take their medications in

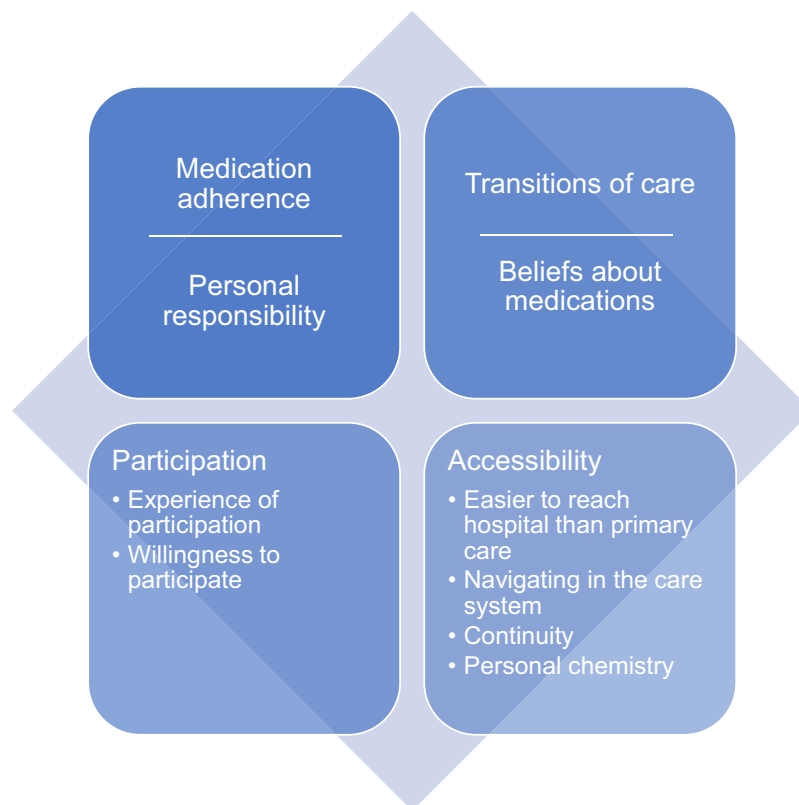


Figure 1 Themes and sub-themes identified in the thematic analysis.

the evening or midday. Inhalers for chronic obstructive pulmonary disease (COPD), insulin and oral anticoagulants were mentioned as specific drugs that are more difficult to remember.

Personal Responsibility

The majority of the participants showed a vast personal responsibility regarding their medications and managed both the dispensing and medication intake by themselves:

I do it myself. (Inger)

However, one out of five had dose dispensed medications and a few respondents received support from their partner to refill the tablet dispenser once a week. The respondents also mentioned that partners sometimes helped to remind the respondent to take the medications. One respondent expressed this as:

I have my partner and she... sometimes she asks: Have you taken your medication? (Gunnar)

In this population of older people, some individuals will eventually come to a point where the personal responsibility to manage their medications is experienced as overwhelming. For example, one respondent expressed anxiousness to not be able to take this responsibility in the future:

I do this myself [...] but I feel that I am getting closer to needing help [...] for example I forgot to prepare the tablet dispenser.

I usually do this on Sunday afternoon I always have. But this time I forgot to. (June)

This respondent was aware of the coming need for help and support with medications.

Transitions of Care

The participants were asked about their experiences regarding medication changes in connection with their most recent hospitalization. Some half of the participants reported changes in their medications after being discharged from hospital to their own homes, while the other half did not receive any changes. Among the participants who had changes in medication, the majority had received a discharge notice and experienced that they had received sufficient information, either in writing or orally, regarding the performed changes. Several participants expressed that they otherwise ask until they are satisfied with the information:

I think. Nevertheless, I am good at questions. I ask and I ask. I walk over and ask. Of course, it can't be so easy for them all the time... how many times do they say that every day? (Anna)

Some participants wanted more information about the medication changes:

I demanded [information]... but it wasn't... it wasn't detailed enough. Why I... I just want to know what they had done quite simply, and it [the information] wasn't detailed enough. I didn't get much wiser [laughs]. (Edvard)

Participants reported that the new medications or dose adjustments could go into their usual daily routines, without any adjustments. In summary, half of the participants noted changes in medication while half of the participants did not. However, most of the participants reported that they had received sufficient information, and when they had not, they asked questions.

Beliefs About Medications

The participants were also asked about their beliefs about medications. Many of the participants saw medications as necessary. One participant noted that the best scenario would be not to need medications:

Of course, the best thing is if you don't need them, but you need them to live well. (Anna)

It was important to take the medications as prescribed, even though the participant did not have positive beliefs about medications:

I don't like it, but I have to have it [the medication], I understand that. (Maud)

Another participant explained this as something that must be done:

You just have to, in order to make it work, when you can't control it yourself, just to feel ok. (Beatrice)

Other participants expressed this as necessary to manage the day without any problems.

One participant summarized:

I just don't like taking a lot of medications (Edvard)

On the other hand, one participant was very positive:

I think medications are just great. (June)

While another expressed being

Grateful over having so few medications to take. (Karl)

In the end, it was difficult for the patients to know for sure:

I'm not sure what it would be like if I didn't take them... I feel that they work. (Laila)

The same was true for one participant who did not want to take medications but spoke about

Getting an explanation and accepting [the decision]. (Gunnar)

Very few of the participants in this study reported having concerns regarding negative side effects of medications. In the cases in which this was mentioned, the participants noted that it was easy to take contact and ask questions.

Participation

From the health care and physician perspective, it has become more and more important to invite the individual to participate in the decision of the prescribed therapy. To explore the respondents' view on this area they were asked if they experienced participation and whether they wanted to be more involved in these decisions. In this theme, two sub-themes were generated: Experience of participation and Willingness to participate.

Experience of Participation

The participants reported different levels of participation in the decision of which medications they were prescribed. No participation is seen when the physician is considered to be the expert:

You are not allowed to decide... It is according to the physician. (Norman)

For some respondents, the participation was more pronounced:

We have discussed, and I have questioned things sometimes. (Gunnar)

Expressions such as:

I comply with the information I get (Inger) and I trust them. (Laila)

were used.

Several respondents also stated that they consider themselves to be experts on their own bodies. They have long life-experiences of how they have reacted to certain medications. These experiences and information are important to communicate to their physician when medications are prescribed. For example, respondents told their physician if they had experienced adverse effects related to particular medications in the past:

I think that one can say this, because I definitely know that I have reacted to certain medications for some reason. Something had happened. And I told the physician. This is not good for me' and so on... and since then I have had another medication. (June)

Based on their experiences of medications the respondents appear to see the sharing and questioning to attain the necessary changes.

Willingness to Participate

Overall, the respondents seemed to trust their physicians and were satisfied with the level of participation that they had. For some participants, the level was high:

I want to participate because I want to know. Mainly this is curiosity; what am I putting into myself and why... and this is very important for me. (Gunnar)

Another respondent saw participation as being connected to questions:

I am quite inquisitive. I want to know everything, how it works [...]. I am curious [laughs] (Edvard).

For other respondents the level of participation was low:

I don't want to get myself so involved. (Norman)

It was also noticeable that some respondents had not given much thought to the issue of participation. One respondent regarded information as a form of participation:

I think that I participate in the regard that I receive information about it [medications]. (Laila)

In general, for this group of respondents, the possibility of having a more pronounced role in the process of participation was not an issue that they had reflected upon.

Accessibility

The sixth theme, Accessibility, included four sub-themes: Easier to reach hospital than primary care, Navigating in the care system, Continuity, and Personal chemistry.

Easier to Reach Hospital Than Primary Care

Respondents expressed that there is often a barrier in getting in contact with primary care on their own initiative. First, they have to manage the phone queue, where it is difficult to get through:

You have to ring a hundred times to get through, because it's... if you ring early then they are all booked... That's just the way it is and then there's Covid 19 and all that [...] you do your best [laughs]. (Beatrice)

Another respondent noted that it is easy to get through the phone queue, but it can be hard to hear what is said on the phone:

It is really, really easy. If you just get through on the phone. What is the most difficult is the telephone. Because I hear very, very poorly what they say [...] and they... then you say 'Please try and speak more clearly'. (Cecilia)

In comparison with primary care, the respondents experienced that it is easier to get in contact with the hospital and specialist care when needed:

Yes, [laughs] at the primary care center that I have it is almost impossible. The so-called accessibility is very, very limited and it has always been difficult... it is much easier to get in touch with the hospital, but this is something that you think twice about. (Doris)

In the specific of sudden heart problems, the specialist care appeared to be ready to intervene without any further notice:

As soon as I have heart problems... I get in at once... They [hospital] are very concerned about helping the patient [...] with other things it can take some time [...] but with heart issues they are very fast. (Laila)

Navigating in the Care System

Some participants thought that it is hard to know where to ask for the right help:

I don't think that I have any difficulties, but the difficulty is to ring the right place. (Gunnar)

The primary care center and the pharmacy were mentioned as good information sources depending on which questions there were:

I have to contact the primary care center and so I have to consider which questions and what answers I want to get... who can I turn to otherwise? And we have a wonderful pharmacist here. She is very informative if you have questions. (Karl)

However, one respondent expressed frustration that sometimes being referred back and forth between the primary care physician and the pharmacist at the pharmacy with question regarding medications. Other respondents were satisfied with the possibility to use health care e-services to get in contact with primary care.

Continuity

A barrier that respondents mentioned was the lack of continuity with keeping the same physician over a longer period of time. The respondents expressed that they felt secure when they had the same physician, even though not all of the respondents did have this privilege right now:

That's why I felt so secure'. So I hope I get to keep him [the physician], but I probably will not. They change. (Anna)

Another respondent noted having the same physician:

I was lucky, I had the same physician for 18 years [laughs] but they have to retire, too. (Maud)

This type of change in physicians was seen as a barrier by the respondents.

When the physician knows the patients, it is also possible to detect health changes and if the patient needs specialist care. One respondent mentioned that the general practitioner detected an early cancer disease just by a sudden reduction in hemoglobin level:

Now I have been lucky. I have had the same physician for a short time... and... well before... a long time again, I had the same physician and he was the one... who discovered that I had stomach cancer. (Laila)

For this respondent this resulted in immediate care and positive results.

Personal Chemistry

The contact between the physician and the respondents was mentioned as an important aspect of care.

Well, you get a special chemistry with certain physicians and you can speak freely. Other are very correct and only speak about the sickness. (Peter)

Respondents also note a change for the worse in the last few years

The problem is that there are so many young physicians... nonchalant... Take this or do that... This wasn't the case earlier. (Inger)

However, the communication between the physician and respondent also had the possibility to improve. For example, when one respondent asked if it was possible to change to another physician:

But then I said at once 'I want another physician'. And then... she has actually... it didn't work... I felt that I couldn't communicate with her... but she came back and she had become another person... Maybe she found out that I wanted someone else... but now things work well. (Beatrice)

In summary, the results showed that the respondents expressed good medication adherence. They manage their medications on their own, with support through tablet dispensers and family members who help, and therefore have a high level of personal responsibility. In the transitions of care, the respondents expressed satisfaction with the information given

regarding medication changes after discharge. If they did not receive enough information, they asked questions. While some respondents did not see a need for participation, others understood participation in the form of asking questions, receiving information, and expressing the need for changes in medications. Many respondents thought that their medications are necessary and that it is important to take them exactly as prescribed. Few respondents expressed anxiousness about side effects. The main barriers were seen in accessibility. The respondents reported that the hospital is more accessible than the primary care center. Continuity is also seen to be another barrier, ie, the possibility to have the same physician over time as well as noting the importance of personal chemistry.

Discussion

In this population of older individuals, living at home, who manage their own medications, the respondents expressed that they take their medications as prescribed and carried a great personal responsibility in both medication self-management and own care. Half of the respondents thought that they had received sufficient information regarding their medications at hospital discharge and that they asked questions if they had not received information. The majority of the respondents expressed that they were satisfied with the participation level they had experienced regarding their prescribed medications, regardless of if it was high or low. Many of the respondents saw their medications as necessary, where some of the respondents expressed gratitude and some did not like having to take medications. There were two clear practical aspects that the respondents lifted as barriers to their self-management, which were problems getting in contact with primary care on their own initiative and continuity in care with the same physician over time.

Previous studies on patients' attitudes in self-medication management and their role to participate in decisions about their medications are primarily conducted with interview studies in acute hospital settings.^{1,17} Therefore, this study focuses on the period after discharge from hospital to home. The analysis showed that the respondents, in general, had a positive attitude towards their medications and few problems or barriers with their medication self-management. In comparison, Rustad et al interviewed 14 individuals 80 years and older regarding their experience of the care transition from hospital to municipal health care services in Sweden.¹⁰ They found that older individuals experienced care transition as complex and challenging. The respondents also expressed confusion about the medication information transferred between hospital and municipal health care settings. Further, Bagge et al interviewed 40 individuals 75 years and over who managed their medication changes at home after hospital discharge in New Zealand.¹¹ They showed that half of the respondents did not know about the reasons for performed medication changes. Further, the respondents expressed that they hesitated to question hospital staff about their medications during admission. The majority trusted the physician and accepted their decisions without questioning them. However, in our study, some half of the respondents reported medication changes after discharge and the majority thought that the information given was detailed enough. In the cases where respondents missed information they had no problem to ask questions to the health professionals. This suggests that our population was probably healthier and took a vast personal responsibility for their own care compared to the populations in Rustad et al and Bagge et al.

Pasina et al showed that medication non-adherence was correlated with a higher number of drugs prescribed at hospital discharge among older individuals.³⁰ They also pinpointed the need of clear instructions and to simplify the regimen as far as possible to increase the ability for older individuals to self-manage their medications. In the present study, only a few medication changes were made after discharge. Among the half of the respondents who received changes, these respondents also asked further questions to assure if they missed any information. This may be one reason why the majority of the respondents did not express any concerns with changes made. Both Pasina et al and the present study indicate the importance of communication between health professionals and older individuals regarding medication changes after discharge from hospital to home and that this needs to be addressed carefully by health professionals. An optimal solution could be to organize the discharge situation to provide clear and comprise information to older individuals, and therefore encourage them to ask questions about the changes in medications.

The majority of the respondents expressed that the new medication regimens were no problem to apply to their usual daily routine after getting home from hospital. This can be compared with previous studies that have reported a more differentiated picture where some older individuals have no concerns to resume to their previous medication-taking routines, while others report more problems.^{11,31}

Sixty percent of the respondents lived alone, which probably has implications on the results. Previous research has shown that living status is associated with medication adherence. Overall, a beneficial effect on adherence has been found for family/paid caregiver support and a poorer adherence with lack of support.^{32–34} Our population was in general quite healthy without the need for paid caregiver support of their daily medication management. However, during the interviews, several respondents mentioned that their spouse sometimes reminds them to take their medications.

This study has several limitations. The study population was shown to be quite homogenous. Many of the respondents had overall positive attitudes regarding medication self-management. They were also willing to be interviewed in their home. Further, a higher-than-expected proportion of the respondents had emigrated from Finland to Sweden during their childhood, which can have affected the results. The majority of the respondents lived inside the city and were also women, which also may reduce the transferability of the study.

Implications with the present study are for example that the study provides insights into how a healthier population of older people experiences their self-management of medications after discharge from hospital to home. The results also highlight the need for a functioning primary care that can support these individuals in order to reduce the burden of secondary care contacts. The respondents expressed clear examples of the importance of good communication with health care professionals and to be given the opportunity to ask questions to calm their worries and feel safe with their treatments.

In future research, more knowledge regarding transitions of care after discharge is needed. This involves deeper knowledge in barriers how older individuals get in contact with primary care, their ability to navigate in the care system, and the possibility for these older individuals to keep the same physician over time. Future research also needs to focus on older populations with lower medication adherence compared with the present study. For example, by recruiting individuals admitted to hospital due to MPRs and interviewing these individuals after discharge from hospital. Another possibility would be that physicians in primary care identify older individuals with poor medication adherence who are invited to interviews.

Conclusion

The included respondents, who were older individuals living at home, expressed that they were medical adherent and self-managing. In the transitions of care, the respondents experienced that they had received enough medical information, otherwise they asked questions. Despite if the participation level in decisions of care was high or low, the respondents expressed that they were satisfied. The majority of the respondents also saw their medications as necessary. Based on these attitudes and perceptions, there were two clear practical aspects that the respondents lifted as barriers to their self-management, which were difficulties to reach primary care on their own initiative and the lack of continuity with the same physician over a longer period of time.

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Disclosure

The authors report no conflicts of interest in this work.

References

1. Ozavci G, Bucknall T, Woodward-Kron R, et al. A systematic review of older patients' experiences and perceptions of communication about managing medication across transitions of care. *Res Social Adm Pharm*. 2021;17(2):273–291. doi:10.1016/j.sapharm.2020.03.023
2. World Health Organization. *Medication Safety in Transitions of Care*. Geneva, Switzerland: WHO Document Production Services; 2019.
3. McLeod LA. Patient transitions from inpatient to outpatient: where are the risks? Can we address them? *J Healthc Risk Manag*. 2013;32(3):13–19. doi:10.1002/jhrm.21101
4. Yap AF, Thirumoorthy T, Kwan YH. Systematic review of the barriers affecting medication adherence in older adults. *Geriatr Gerontol Int*. 2016;16(10):1093–1101. doi:10.1111/ggi.12616

5. Westberg A, Sjölander M, Glader EL, Gustafsson M. Primary non-adherence to preventive drugs and associations with beliefs about medicines in stroke survivors. *Patient Prefer Adherence*. 2022;16:343–352. doi:10.2147/PPA.S351001
6. Abegaz TM, Shehab A, Gebreyohannes EA, Bhagavathula AS, Elnour AA. Nonadherence to antihypertensive drugs: a systematic review and meta-analysis. *Medicine*. 2017;96(4):e5641. doi:10.1097/MD.00000000000005641
7. Seng JJB, Tan JY, Yeam CT, Htay H, Foo WYM. Factors affecting medication adherence among pre-dialysis chronic kidney disease patients: a systematic review and meta-analysis of literature. *Int Urol Nephrol*. 2020;52(5):903–916. doi:10.1007/s11255-020-02452-8
8. Yeam CT, Chia S, Tan HCC, Kwan YH, Fong W, Seng JJB. A systematic review of factors affecting medication adherence among patients with osteoporosis. *Osteoporos Int*. 2018;29(12):2623–2637. doi:10.1007/s00198-018-4759-3
9. Sjölander M, Eriksson M, Glader EL. The association between patients' beliefs about medicines and adherence to drug treatment after stroke: a cross-sectional questionnaire survey. *BMJ Open*. 2013;3(9):e003551. doi:10.1136/bmjopen-2013-003551
10. Rustad EC, Furnes B, Cronfalk BS, Dysvik E. Older patients' experiences during care transition. *Patient Prefer Adherence*. 2016;10:769–779.
11. Bagge M, Norris P, Heydon S, Tordoff J. Older people's experiences of medicine changes on leaving hospital. *Res Social Adm Pharm*. 2014;10(5):791–800. doi:10.1016/j.sapharm.2013.10.005
12. Stiggelbout AM, Pieterse AH, De Haes JC. Shared decision making: concepts, evidence, and practice. *Patient Educ Couns*. 2015;98(10):1172–1179. doi:10.1016/j.pec.2015.06.022
13. Blumenthal-Barby J, Opel DJ, Dickert NW, et al. Potential unintended consequences of recent shared decision making policy initiatives. *Health Aff*. 2019;38(11):1876–1881. doi:10.1377/hlthaff.2019.00243
14. National Health Service. Guidance: the NHS Constitution for England; 2021. Available from: <https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england#patients-and-the-public-your-rights-and-the-nhs-pledges-to-you>. Accessed November 25, 2022.
15. National Institute for Health and Care Excellence (NICE). *Shared Decision Making*. NICE; 2021.
16. Carmona C, Crutwell J, Burnham M, Polak L. Shared decision-making: summary of NICE guidance. *BMJ*. 2021;373:n1430. doi:10.1136/bmj.n1430
17. Bomhof-Roordink H, Gärtner FR, Stiggelbout AM, Pieterse AH. Key components of shared decision making models: a systematic review. *BMJ Open*. 2019;9(12):e031763. doi:10.1136/bmjopen-2019-031763
18. Kvale S, Brinkman S, Torhell S-E. *Den Kvalitativa Forskningsintervjun [The Qualitative Research Interview]*. 2 ed. Lund: Studentlitteratur; 2009.
19. Region Västerbotten. About Umeå University Hospital. Region Västerbotten; 2022. Available from: <https://regionvasterbotten.se/vara-sjukhus/norrlands-universitetssjukhus>. Accessed September 20, 2022.
20. Kindstedt J, Svahn S, Sjölander M, Glader EL, Lövhelm H, Gustafsson M. Investigating the effect of clinical pharmacist intervention in transitions of care on drug-related hospital readmissions among the elderly: study protocol for a randomised controlled trial. *BMJ Open*. 2020;10(4):e036650. doi:10.1136/bmjopen-2019-036650
21. Mahler C, Hermann K, Horne R, et al. Assessing reported adherence to pharmacological treatment recommendations. Translation and evaluation of the Medication Adherence Report Scale (Mars) in Germany. *J Eval Clin Pract*. 2010;16(3):574–579.
22. Chan AHY, Horne R, Hankins M, Chisari C. The medication adherence report scale: a measurement tool for eliciting patients' reports of nonadherence. *Br J Clin Pharmacol*. 2020;86(7):1281–1288. doi:10.1111/bcp.14193
23. Patton MQ. *Qualitative Research & Evaluation Methods*. 3 ed. London: SAGE; 2002.
24. Braun V, Clarke V. Reflecting on reflexive thematic analysis. *Qual Res Sport Exerc Health*. 2019;11(4):589–597. doi:10.1080/2159676X.2019.1628806
25. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3:77–101. doi:10.1191/1478088706qp063oa
26. Boyatzis RE. *Transforming Qualitative Information: Thematic Analysis and Code Development*. London, Thousand Oaks, CA: SAGE; 1998.
27. Braun V, Clarke V. Thematic analysis. In: *APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological*. Washington, DC, US: American Psychological Association; 2012:57–71.
28. Swedish Research Council. *Forskningsetiska Principer Inom Humanistisk-Samhällsvetenskaplig Forskning [Ethical Principles for Research Practice in Humanist-Social Scientific Research]*. Stockholm, Sweden: Vetenskapsrådet; 2002.
29. Swedish Research Council. *God Forskningsd (VR 1708) [Good Research Practice (VR 1708)]*. Stockholm, Sweden: Vetenskapsrådet; 2017.
30. Pasina L, Brucato AL, Falcone C, et al. Medication non-adherence among elderly patients newly discharged and receiving polypharmacy. *Drugs Aging*. 2014;31(4):283–289. doi:10.1007/s40266-014-0163-7
31. Blennerhassett JHJ. Medicine management in older people from non-english speaking backgrounds. *J Pharm Pract Res*. 2011;41:33–36. doi:10.1002/j.2055-2335.2011.tb00063.x
32. Kardas P, Lewek P, Matyjaszczyk M. Determinants of patient adherence: a review of systematic reviews. *Front Pharmacol*. 2013;4:91. doi:10.3389/fphar.2013.00091
33. Aggarwal B, Liao M, Mosca L. Medication adherence is associated with having a caregiver among cardiac patients. *Ann Behav Med*. 2013;46(2):237–242. doi:10.1007/s12160-013-9492-8
34. Shruthi R, Jyothi R, Pundarikaksha HP, Nagesh GN, Tushar TJ. A study of medication compliance in geriatric patients with chronic illnesses at a tertiary care hospital. *J Clin Diagn Res*. 2016;10(12):Fc40–Fc43. doi:10.7860/JCDR/2016/21908.9088

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