Factors influencing general practice follow-up attendances of patients with complex medical problems after hospitalization

Shu Ching Yang\textsuperscript{a,*}, Nicholas Zwar\textsuperscript{b}, Sanjyot Vagholkar\textsuperscript{a}, Sarah Dennis\textsuperscript{c} and Helen Redmond\textsuperscript{d}

\textsuperscript{a}General Practice Unit, Sydney South Western Area Health Service, \textsuperscript{b}School of Public Health and Community Medicine, University of New South Wales, \textsuperscript{c}Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, University of New South Wales and \textsuperscript{d}Department of Rehabilitation Medicine, Sydney South Western Area Health Service, Sydney, Australia.

\textsuperscript{*}Correspondence to Shu Ching Yang, General Practice Unit, Sydney South Western Area Health Service, Sydney, Australia; E-mail: scytw77@gmail.com

Received 27 December 2008; Revised 13 September 2009; Accepted 29 September 2009.

Background. Supported discharge care of patients with complex medical problems is associated with improved health outcomes. GPs are ideally placed to provide post-discharge care in the community. Knowledge of factors that influence patients’ decisions to attend such follow-up is thus important to improve health care outcomes of these patients.

Objectives. To explore factors that influence complex medical patients’ decision to attend GP follow-up after discharge and factors affecting their level of satisfaction with such follow-up.

Methods. Qualitative investigation using semi-structured telephone interviews of 26 patients with complex medical issues conducted 2 weeks after hospital discharge.

Results. Complex medical patients experienced varying degrees of concern and information needs after discharge from hospital. Patients’ understanding of the role of the GP and experiences of continuity of care also influence patients’ decisions to attend follow-up with their GP. In addition, practical factors such as GP availability, presence of discharge instructions, access to transport and level of social support also affect patients’ ability to attend early GP follow-up after hospital discharge. Patients’ satisfaction with GP follow-up was influenced by perceived competence and personal continuity with the GP.

Conclusions. Patients’ decisions to attend GP follow-up after hospitalization are influenced by a number of factors. Interventions to support post-hospital care that address these issues need to be developed and tested. Key issues are patients’ understanding of their condition, understanding of the role of the GP in follow-up and continuity of care.

Keywords. Attitude to health, patient discharge, primary health care, qualitative study.

Background

In 2005, chronic diseases accounted for 48% of the total worldwide burden of disease.\textsuperscript{1} In Australia, like many developed countries, chronic disease care accounts for a large proportion of health expenditure.\textsuperscript{2} Supported discharge of elderly patients who have complex and chronic medical conditions is known to significantly reduce readmission rates and improve health outcomes.\textsuperscript{3–8} Patients with chronic illnesses often report low confidence in self-management due to a lack of understanding of their condition and their medications.\textsuperscript{9–11}

GPs are important coordinators of patients’ care in the community\textsuperscript{12} and are ideally placed to assist patients through their transition from hospital to home. Effective GP follow-up can increase patients’ satisfaction, reduce hospital readmissions and nursing home admissions,\textsuperscript{13} especially among geriatric patients and those with certain chronic medical conditions such as asthma, and obstructive pulmonary disease after emergency department attendances.\textsuperscript{14,15} Hence, research to investigate the determinants of follow-up attendances of such patients in general practice after hospitalization is important. This study aims to understand factors that influence patient follow-up.
attendance and satisfaction at follow-up with their GPs. We focussed on patients with complex medical problems who would have the greatest need for post-hospital care.

Methods

Interpretive qualitative methods were used to understand the patients’ perspective on this matter and to describe their experience of general practice follow-up. The ethics committee of the local area health service approved the study and written consent was obtained from each participant.

Patient selection

Participants with complex medical issues were recruited from medical wards in a community hospital in the South West of Sydney (Fairfield District Hospital) through their treating health professionals. As there is not a clear definition in the literature to identify these patients, for the purpose of this study, we defined them as those who were hospitalized on four or more regular medications and had two or more medical co-morbidities. Patients >18 years of age who could understand English were eligible if they met this definition and were cognitively competent to give informed consent. Patients were invited to participate in the study while they were in hospital by the principal investigator (SCY). A semi-structured telephone interview was conducted 2 weeks after discharge. Recruitment ceased when no new themes were emerging from the data.

Interviews

Semi-structured telephone interviews were conducted by the principal investigator between April and September 2008. The interviews explored participants’ health status post-discharge, utilization of health services after hospitalization and focused on factors driving and preventing participants to attend general practice follow-up and a description of the follow-up consultation. The interviews were tape recorded and transcribed verbatim. Five randomly selected interview transcripts were checked by the principal investigator against tape recording and field notes for accuracy.

Data analysis

The software package NVivo 8 was used for data management and analysis. Themes and categories from the data were initially identified and indexed by the principal investigator, applying the constant comparative method derived from grounded theory approaches. The codes were later re-examined by four investigators independently (SCY, NZ, SV and SD). Consensus of developing the themes was reached after discussion. Matrix coding queries were also used to identify patterns in responses from patients who differed in follow-up attendance with their regular GP and those who indicated a difference in satisfaction with their GP follow-up.

Results

Participants

A total of 26 patients were interviewed. Characteristics of the patients are shown in Table 1. Of the 40 patients approached, 3 patients declined and 11 patients were excluded due to reasons including transfer to other tertiary institutions, not contactable after recruitment and re-hospitalization.

The participants were interviewed at 2–3 weeks after hospital discharge. All participants came from

<table>
<thead>
<tr>
<th>Table 1 Patient demographics</th>
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<tr>
<td>Number of patients (n)</td>
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<td>Reasons for admission (no. of patients)</td>
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<td>Fever and other symptoms</td>
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south-western suburbs of Sydney. This is an area in
Sydney populated by a high percentage of migrants
including refugees and has high proportions of people
with low socio-economic status. Ten of the partici-
pants were from culturally and linguistically diverse
backgrounds. Three patients were not given a dis-
charge summary for their GP. Only one of the inter-
viewed participants did not have a GP who they see
regularly. Eighteen of the 20 patients attended fol-
low-up with their regular GP and two patients
attended reviews with other GPs.

Our analysis revealed four major themes in regards
to factors influencing patients’ decision to attend GP
follow-up:

1. patients’ concerns regarding their own health and
medical conditions,
2. patients’ understanding of the role of GP in the
management of their condition,
3. access to GP care and
4. patients’ satisfaction with their existing GP.

In order to characterize these patients, a brief de-
scription of the patients quoted below is provided in
Table 2.

**Concerns regarding own health and medical conditions**

Patients’ concerns regarding their health status
and medical conditions were important drivers
for attending general practice follow-up. Their
concerns range from events during admission,
medications, discharge instructions, investigation
results, ongoing management and their current
health status. Patients expressed varying degrees
of concern from minor worries to severe anxiety
leading them to seek almost daily reviews by their
GP.

... the body adapted to taking high blood pressure
medication suddenly end with low blood pressure
... the other benefits of medication (antihyperten-
sives) was to support other areas in the body.
(Would stopping medication make these) areas
... vulnerable to any ... coronary disease in the
future? (Patient 1)

They said I was supposed to be discharge with the
whole list, but the only script I was given was for
Keflex (cephalexin). I had Keflex before and I
was a bit concerned about taking them because
I’ve had a lot of nausea ... I had to stop the
Keflex ... (Patient 2)

Patients commonly sought explanation or clarifica-
tion on their medical conditions and management.

I went because I was a little bit confused with my
tables ... (Patient 3)

Well, on one of the x-rays it says one lung ... And
then on another report it says the opposite lung
... So (the GP) just wants to follow it up and
check to see which lung it is or whether it was
both lungs. (Patient 4)

However, patient’s concerns may also drive some
patients to follow-up with other health professionals
to address their concerns.

When they tell you that you could have lung
cancer, it can be a bit of a worry, but I will be in-
terested to talk to the Thoracic guy when I see
him on Sunday. (Patient 5)

Follow-up with a GP may be delayed by other com-
peting concerns.

If I was out of tablets, I would have gone to see
him earlier, but I thought I would wait until I
could get the forms filled out for the RTA (roads
and traffic authority) and I wanted to make sure
that he did not knock me back on the eyes (eye
check). (Patient 6)

Understanding of the role of GP in management

Some patients attended follow-up for further reassur-
ance from their GP about their general health condi-
tion and understanding.

I thought that I’d best go for him to see me what
with the hospital said in the letter. (Patient 7)

... confirming things that I had thought of and ... he
confirmed that ... what I had thought was
right. (Patient 8)

He told me that everything should be alright ... just
go off the lunchtime tablets and he give me
a script for the antibiotics ... he just said keep go-
ing as I am. Don’t panic, and if anything gets
worse, either call an ambulance or whatever ...
(Patient 9)

A few patients attended on the understanding that it
was routine to follow-up with GP after hospital dis-
charge.

I always went to see (the GP) for a check up ...
He goes through the whole business of um blood
pressure, sugar, chest, everything ... I always like
to go and say Hi. (Patient 10)

I was directed to see (the GP) after (I leave) hos-
pital and (for) other problems that I was having...
part of my routine visit to the GP. (Patient 2)

Some patients, however, failed to attend follow-up
with their GP due to lack of instructions contributing
to lack of understanding and confusion about their
post-discharge follow-up.
I don’t know what sort of follow up or whether I should do more, until I see my (specialist) about the diabetes. (Patient 6, no discharge summary given.)

A few patients also neither perceive problems with their health nor appreciate the role and importance of a GP follow-up and hence fail to seek GP review.

When I was in the hospital, my sugar levels were always high. Once I came home, they are always low. Since I came home, I think once or twice it was over 10, but it has been down to as low as 1.9. (Patient 6)

My GP didn’t even see me while I was in hospital, so why should I go and see him? (Patient 11)

Access to GP care
Patient also gave lack of social support and transport as reasons for not accessing primary care review after hospital discharge.

(I’ve) not seen a GP yet because my daughter couldn’t go with me. (Patient 11)

My husband … he’s sick too, my daughter she’s having exams at uni and nobody can drive me there (to see the GP). (Patient 13)

Availability of GP was also a barrier to early follow-up.

… usually you have to ring up and make an appointment and wait up to 5 days as he only works 4 days. (Patient 6)

However, this does not necessarily prevent the patient from seeing their GP. Patients learn to develop strategies to obtain GP appointments.

(When) I left the hospital, I straight away asked for an appointment to (see) the GP. (The appointment) may be … one week, maybe two weeks after you know. (Patient 14)
Patients responded positively if they perceived their GP to be available. Comparisons with their experiences of the availability of specialists were also made by patients.

You just can’t walk into a doctor’s office and get seen. You got to make an appointment ... or you’ll have to be dying to see him straight away. So you’ve got to wait no matter where you go or what you do. Dr S ... I could walk down there and within half and hour or so I could be seeing him ... whereas I could be up here for 2.5 hours. (Patient 10)

(The GP) was busy, (but) she took me in and everybody else was waiting (for) which I was very grateful for ... Trying to get in to see a specialist is like trying to win Lotto. (Patient 15)

One of the patients, however, attended follow-up only with his specialist as the specialist was readily available.

I had an appointment with the specialist straight away as soon as I came home ... so I thought that was better. (Patient 5)

**Patient satisfaction**

The majority of patients who attended follow-up expressed satisfaction with their GP. Patients’ satisfaction with their GP did not seem to reflect the actual contents of the follow-up. Respondents were satisfied in their interaction with their GP due to personal continuity and perceived competence of the GP.

**Personal continuity.** Patients tend to attend follow-up after hospital discharge if they had a regular GP regardless of their level of concern or understanding about their medical conditions.

Just to say hello ... to tell (the GP) what had happened ... (Patient 12)

Patients were willing to wait longer to see their regular GP due to previous negative experiences with other GPs.

(That GP) said what are you allergic to? I said Penicillin ... so he wrote it down on some other poor bugger’s file ... (Patient 6)

All the other doctors there, every time I went they made a boo-boo. Lucky I’ve got a good chemist who picked up on their mistakes ... or I would have been dead by now. (Patient 6)

Personal continuity with a GP builds a positive relationship contributing to satisfaction with their GP follow-up.

Yes, (the GP) knows my story—I have got a long story with my hip replacement, my heart which he has under control. (Patient 3)

Ask (the GP) to check me over (as) I’d just come out of hospital ... He’s got more record (of me) than ... about thirty years. (Patient 10)

**Perceived competence of GP.** Patients expressed greater satisfaction if they trusted their GP and had confidence in their GP’s skills and competency. This was described in majority of the patients who attended follow-up.

Well (the GP’s) been looking after me since I’ve been crook ... and pinpointed a lot of things. I was starting to panic when I couldn’t breathe and he sent me to hospital ... (He) found I had emphysema ... He’s done a lot for me ... lots really. (Patient 9)

Normally what happens is, (the GP) often says to me, right you’ll have that wheeze for about maybe a week ... you can bet you life on the end of that week, pretty close it’s gone. (Patient 16)

(The GP) gives you the time ... he listens to you. He doesn’t just sort of gives you the bums rush ... get you out the door as fast as you can. He’s quite good. (Patient 17)

**Discussion**

**Principal findings**

Our findings show that patients follow-up with their GP for a variety of reasons including concerns regarding their own medical condition and management, need for reassurance and clarification of their management. Others also attended follow-up with their GP as a matter of routine health care.

Some patients did not attend GP follow-up as they were happy with their health status post-discharge and confident with their ongoing medical management. However, of concern were patients who did not attend follow-up with their GP due to lack of understanding of their health problems and the role of the GP in their ongoing health management.

Most patients who attended follow-up with a GP had a regular GP and indicated that part of the reason they were satisfied with their follow-up was due to the continuity of care they enjoyed with the GP. Few patients also indicated that they attended follow-up mainly as part of this personal continuity with their GP. This suggests that a positive pre-existing relationship with their GP contributes to patient satisfaction with their follow-up appointments, which further increases continuity of their medical care and potentially improve health outcome of these patients. Patients
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were also satisfied with their follow-up if they felt confident about their GP’s competence.

Our study also highlights that a small group of patients who fail to attend early GP follow-up are at risk of adverse health outcomes due to lack of understanding of their health condition and management. There is evidence that having a regular GP, with established continuity, may contribute to their satisfaction with the provision of primary care\textsuperscript{21,22} and hence increase their attendances at GP follow-up after discharge from hospital. Having personal continuity with a regular GP may also decrease adverse health outcomes such as increased emergency department visits.\textsuperscript{23}

**Strength and limitations**

Our study is limited geographically, as all our participants came from one urban Australian district hospital and as such reflect their perspectives from their own experiences within the Australian health care system. However, our results can be generalized to other contexts where patients are registered with one primary care provider as 25 of our participants indicated they had a regular GP.

For the basis of this study, we made an assumption that early GP follow-up is beneficial for patients with complex medical problems. This assumption is supported by previous studies.\textsuperscript{14,15,24} Based on our assumption, our findings provide us with patients’ perspectives of the factors influencing attendance for GP follow-up after hospital discharge in a group of patients who stand to benefit significantly from high-quality primary care.

**Implications**

Our findings have important implications for research and policy making. We need to examine ways to increase patient awareness and understanding of their conditions and promote continuity of care to patients. As more GPs work part time and have increased professional mobility, access and continuity of care with a single practitioner can become challenging. Lack of continuity in health care could place these vulnerable patients at risk of poor health outcomes. Therefore, we need to address these challenges and find ways of maintaining continuity of care to ensure that patient safety is not compromised while also meeting current doctors’ needs for a balanced working life.

Patients with complex medical needs do not universally perceive the importance of follow-up with their GP after being discharged from the hospital. This may also place some patients at risk of adverse events involving medication errors, preventable hospital readmissions and emergency department visits.\textsuperscript{23} Interventions to raise patient awareness regarding the role of GP and appropriate follow-up practices may also improve health care outcomes for these patients.

**Conclusions**

Patients with complex medical problems attend GP follow-up after hospital discharge depending on factors including (i) patients’ concerns, (ii) patients’ understanding of the role of their GP in the management of their conditions as well as (iii) personal continuity, access and satisfaction the patient has with a GP.

Further research and interventions to support management of these complex medical patients need to target all these factors. In particular, the challenges of increasing personal continuity and patient understanding of their medical condition and their understanding of the role of a GP need to be addressed.

**Acknowledgements**

We would like to thank all patients who participated in this research. Also we would like to thank Dr Jeremy Bunker, Dr Lynn Kemp, Dr Hubert Low and Sue Kirby for their comments on drafts.

**Declaration**

Funding: General Practice Education and Training, Australia, for Registrar Scholarship and Research Funding. Ethical approval: South Western Sydney Area Health Service—Human Research Ethics Committee (EC00136).

Conflict of interest: None.

**References**


