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Attitudes, Perceptions and Behaviours associated with Hospital Admission Avoidance in High Risk Patients

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Abstract

Background

There is little evidence documenting the attitudes, experiences and behavioural factors of high risk patients that are associated with avoiding hospital.

Aim

To explore the health, health care management and behavioural factors that contributes to enabling high risk patients to avoid unplanned hospital admissions.

Design & Setting

An in-depth qualitative interview study with patients who were registered on the Northumberland High Risk Patient Programme (NHRPP), in Northumberland, UK.

Methods

Thirty participants took part in the study; of which twenty-one were high risk patients and nine were carers, spouses or relatives. A grounded theory approach was used to explore themes that emerged from the semi-structured interviews.

Results

The majority of patients described having trust and confidence in their health care providers, and continuity of care was important to patients. Participants described physical enablers that helped them avoid hospital including medication, living aids and resting, however, the benefit of these may be challenged by patient decision making. Participants felt that support networks of family and friends helped them avoid hospital, although, the strain on the spouse should be considered. The strategies that patients used to cope with their health conditions included acceptance and positive reinterpretation and growth.

Conclusion

Reinforcing the importance of the physical enablers, as well as support networks to patients, carers and healthcare providers could help patients avoid hospital. Highlighting the coping strategies that patients use could help patients manage their health, while promoting continuity of care will also contribute to helping high risk patients avoid unplanned hospital admissions.

Keywords

Frail, elderly, high risk patients, hospital avoidance, unplanned admissions

How this fits in

Exploring the unknown behavioural factors that are associated with avoiding hospital admissions has the potential to help optimise care for high risk patients from an increasing elderly population, while reducing healthcare resource and cost implications. The outcomes from this qualitative interview study showed that the physical enablers, such as preventative medicine and daily living aids, and the influence of patient support networks from family and friends are important in helping high risk patients avoid hospital. Promoting the coping strategies that high risk patients use in their approach to their health, including acceptance and positive thinking could be a beneficial solution that could help encourage patient self-efficacy. Although difficult to achieve in modern day general practice, encouraging continuity of care from GPs and other health professionals will contribute to improving the trust and confidence that a high risk patient has in health professionals, could help promote shared decision making, and reduce anxiety and as well as unplanned hospital admissions.

Introduction

The UK population is increasing and aging with a rise of 12%, 18% and 40% predicted between 2015-2020 in the populations aged over 65, over 85 and over 100 years, giving an increase in 1.1 million, 300,000 and 7,000 people in each age group respectively [1]. Since health generally decreases with age, costs to adult social care, community-based health services, outpatient appointments, non-elective admissions and elective admissions all increase with age. Moreover, those aged 75 and over have the greatest cost to health and care services, being close to 28%, 46% and 89% higher than people aged 65-74, 55-64 and 45-54 years of age respectively [2]. Additionally, care of people with long term conditions accounts for 70% of the money spent on health and social care in England [3].

With an increasingly elderly population with complex co-morbidities, disability, frailty and high social and health care requirements, health care systems are currently under severe pressure to optimise care while keeping costs down, and this is not just a problem in the UK. Interventions including care from inpatient geriatric units [4], systems of screening, assessment, referral, and follow up [5], and detailed assessments and management plans tailored to individual patients by a community multidisciplinary team [6] have shown improved health outcomes and physical performance. However, most studies to date have failed to reduce hospital admissions in frail and elderly high risk patients compared with usual care.

There is a growing need to develop ways to improve management of high risk patients and relieve pressure within the health care system. Identification of patients as 'high risk' of admission to hospital due to frailty with enhanced care planning within primary care is the current consensus with the aim to improve patient care and reduce unplanned hospital admission. In the UK the Northumberland High Risk Patient Programme (NHRPP) was introduced as a combined health and social care platform, and includes people with long term conditions and/or those at high risk of hospital admission or readmission [7]. However, the specialist geriatric input into primary care multidisciplinary team meetings involved in the NHRPP was felt to have little impact on reducing hospitalisation [8].

Why certain high risk patients are able to stay at home and avoid hospital admission or readmission is currently unknown. Factors such as effective care planning, access to health professionals and follow up calls after discharge from hospital [8], may help patients avoid hospital admissions. Clinical factors such as patient ability to recover after functional decline [9, 10], relapse or complications of their condition [7], low health status [11], low quality of inpatient care [12], and lack of connectivity of care between hospital and the community [6] have conversely been associated with more frequent hospital admissions. Social care factors including poor carer support [6] and medication management [6,7], as well as patient factors including knowledge or information accessed by the patient [8], self-management, individual health beliefs [8], self-efficacy [13] and lack

of physical activity [11] have also been associated. Moreover, factors ranging from age discrimination, mental health and spiritual care have been suggested to have an influence on the health status of a frail and elderly patient [13].

Although the factors contributing to hospital admission/readmission have been documented, there is little published evidence regarding the attitudes, experiences and behavioural factors of high risk patients that enable them to avoid unplanned hospital admissions. Qualitative research has shown that case management of frail elderly patients [14] and specialist input [8] within primary care had little effect on hospital admissions. Moreover, access to expertise in the care of frail and elderly patients was perceived to be a barrier to hospital admission avoidance [15], as were clinical error, delayed care seeking, home care access and minimal care [16]. Since the majority of studies to date have focussed on patients that have had multiple hospital admissions, there is a lack of knowledge on the experiences and behavioural factors of high risk patients that manage to avoid unplanned hospital admissions. Identifying the enablers of avoiding hospital admissions within this cohort of patients can be used to improve the management of high risk patients and increase the population of patients that are able to stay at home and avoid unplanned hospital admissions, improving the wellbeing and quality of life of high risk patients, as well as reducing healthcare resource implications and costs.

Methods

Study design

This was a qualitative study that used one-off in-depth interviews with patients to explore the experiences, attitudes and perceptions of high risk patients (defined as patients who were registered on the NHRPP) to their health and the health care they receive, and explore the behavioural factors that contribute to the avoidance of unplanned hospital admissions.

Participants

GP surgeries were identified through Northumberland Clinical Commissioning Group (CCG) and all forty-four surgeries registered on the NHRPP were asked to participate in the study. Fifteen surgeries agreed to take part, and patients were subsequently approached via letter. Twenty-two patients contacted the researcher to take part; however, one patient withdrew from the study prior to being interviewed due to poor health.

In total, thirty participants took part in a one-off interview with RD, twenty-one of which were high risk patients from seven different GP practices, while seven were spouses, one was a paid carer and one was a patient's granddaughter. Thirteen patients had had no unplanned hospital admissions in the twelve months prior to their interview, while out of the remaining patients, unplanned hospital visits ranged from one to twelve admissions in the twelve months prior to the interview (Table 1). All participants were Caucasian and spoke fluent English, while socio-economic class ranged from one to eight [17]. We did not collect information on whether participants had advanced care directives or 'do not resuscitate' decisions. However, the search strategy that the GP practices conducted for selection of potential participants to be included in recruitment did not involve patients who lacked capacity or those that would not be suitable to participate in our study.

Northumberland is a generally high performing area, with Northumbria Healthcare NHS Foundation Trust rated outstanding in 2016 by the Care Quality Commission, and hospitals were graded 'good' or 'outstanding'. Additionally, the GP surgeries that our participants were recruited from had an

average Quality and Outcomes Framework (QOF) Performance total achievement percentage points in the latest year 2016/2017 of 99.4%, ranging from 98.2- 100%.

The study ran from December 2016 until June 2017, and the researcher had not met any of the participants prior to the interview. All interviews took place in the participant's home and on average interviews lasted one hour. Participants were not paid for their time, and no participants lacked capacity. Participant characteristics are shown in Table 1.

Sampling

Using purposive sampling patients were recruited from large and small GP practices throughout Northumberland to give a maximum variation sample [18]. Theoretical sampling using themes emerging from the interviews was performed until data saturation occurred during analysis of interview transcripts [19].

Analysis

The interviews were conducted by RD using an adapted grounded theory methodology. Box 1 shows the final interview topic guide used to lead the semi-structured interviews. Interviews were audio-recorded, transcribed verbatim and anonymised. Interview data were coded by RD using Microsoft Word 2010 and conceptualised using constant comparison of the data, with interviews and data analysis occurring in series. As the interviews proceeded, themes that emerged from the data informed questioning in the sequential interviews until data saturation occurred [20]. Data analysis, categorising and inductive re-categorising of themes was performed by RD and SW. Transcripts were returned to participants for comments, however, no feedback was received.

Results

Patient age range was from 58-96 years, and nine were female and twelve were male (Table 1). Five of the eight patients that had been to hospital as an unplanned admission prior to the interview lived alone and generally had higher rates of hospital admission than those from this subgroup of patients that did not live alone. The themes that developed from the interview data are shown in Figure 1 and include physical enablers of avoiding hospital admission, coping strategies, support networks, decision making, continuity of care and attitudes towards health professionals.

Physical Enablers of Avoiding Hospital Admission

Preventative Medication to Control Health Conditions

Participants perceived that, once established, their medication was contributing to the control of their condition/s and helped them avoid hospitalisation. A number of patients felt that, aside from good medication adherence and living a healthy lifestyle, they had a lack of control over their health, and perceived that fate was a reason for becoming unwell and needing to go to hospital:

Why I haven't been admitted into hospital? Because I haven't been ill enough... I mean, I'm on so much, what I would call, preventative medicine (Patient-1)

You don't know what's going to happen tomorrow, you know. Like the time I got pneumonia (Patient-7)

Daily Living Aids and Adaptations

Some participants recounted that they felt their daily living aids such as adapted chairs, mobility walkers, bath aids, bedside trolleys, walking stick, alarms to press if they fall, adapted showers, stair lifts and commodes helped them within their home and reduced their need for hospital admission:

Aids. Your chair, your walkers. We have bed aids. We have the carers coming in three times a day. We have us coming in at least once a day. We have a bath aid. We have everything we possibly can (Granddaughter of Patient-6)

But I don't have great difficulty about doing the walking, as long as I've got my Zimmer (Patient-8)

Getting rid of the bath was the first thing. Putting the shower in. Then the stair lift. And I also bought a commode (Patient-20)

Lifestyle and Limitations

Healthy eating, having a routine lifestyle, getting some exercise and/or fresh air, avoiding smoking and alcohol, resting when feeling tired or unwell and knowing their limitations were the lifestyle enablers of avoiding hospitalisation mentioned by participants:

Moderation in all things. And do everything slowly (Patient-20)

I think it's important to me to get a measure of exercise every day (Patient-8)

That, and keep a clean life. You know, don't smoke, don't drink heavily (Patient-2)

Coping Strategies

Acceptance

Patients described a number of coping strategies that they use to deal with being a high risk patient. It was noticed that it was mostly patients who had not had any unplanned hospital visits in the past twelve months that described having coping strategies. Acceptance was an important coping strategy used by patients, including acceptance of the effects of old age and/or their health condition/s, and accepting that there are things they can no longer do, and most participants described trying to get on with a normal life. However, some participants did not describe accepting their health concerns, and for two this had resulted in falling:

I feel a frustration at not being able to do some things. Like changing a light bulb. I'm limited in what I can do. But I accept that (Patient-8)

The way I look at it is I live with this condition – it's just part of me. I do what I have to do to control it. But I try not to let it interfere with what I want to do..... Sometimes you just have to listen to your body and just accept that you can't do what you're doing today (Patient-12)

Oh, it was painful. And I thought, "Should I tell [Daughter] because I'm sure to get told off." What were you doing? But I was really too tired in this. So I did fall (Patient-11)

Positive Reinterpretation and Growth

Participants felt that positive reinterpretation and growth, including positive thinking and learning from past experiences were important when coping with their health conditions. Although, a few

participants described struggling to keep positive about their health, and patients who had had multiple hospital admissions generally reported being more anxious:

He's [Husband] well aware of his condition, but he just did... He just gets ill, and then just pops up again. And everyone laughs about it. He just... [GP] thinks he's got 18 lives.... He's just tremendously positive (Wife of Patient-13)

But you can't go on living, thinking you're going to be falling down all the time. I mean, you've got to be much more positive than that, as I say (Patient-5)

It's difficult. Because, you see, when you're feeling depressed it's just go for a hobby. But what can I do? (Patient-10)

I try to stop them [repeat hospital visits] if I can myself. They stopped phoning 999, you know, but... I get stressed and... Anxious (Patient-18)

Mental Disengagement and Focus and Venting of Emotions

Lesser mentioned coping strategies by patients included mental disengagement, such as getting out of the house to help them think about their health less, and focus and venting of emotions, either through self-management or with other people:

Yes, I think the best thing is going out in the car somewhere and then getting out of the car and going for a walk with my husband (Patient-4)

Because if you're feeling under the weather, I feel stuck in the house anyway. With bad roads, if not bad pavements and stuff like that. So you get out in the wheelchair (Patient-10)

In some ways, I can't complain. On down days I do complain to myself. (Patient-5)

Oh, he's horrible to me on a bad day. (Granddaughter of Patient-6)

Support Networks

Support from Family

The majority of participants described a social support network of family that contribute to helping them cope with their health conditions by physical support mechanisms including acting as carers, organising medication, being someone they would call when they did not feel well, doing the food shopping or giving participants lifts to the hospital:

And my uncle does his shopping as well. Today. And I do little bits and pieces if I'm going anywhere, and bring that in. So... He gets plenty help and support (Granddaughter of Patient-6)

My granddaughter here, who's... She's a nurse.... And she takes care of me (Patient-19)

For participants who lived with their husband or wife, their spouse was found to play a key role in looking after their needs, however, a few patients explained they did not have anyone to support them and also felt that living alone contributed to the anxiety they feel about their health, such as when unfamiliar symptoms arise:

Oh, yes. I feed him, look after him. Examine his legs every day to see if his cellulitis is back (Wife of Patient-7)

The enablers [of avoiding hospital]? Well, my wife, again (Patient-8)

But when you get sudden twinges and you go, oh, what was that? And you know that there's nobody there to ask, then you worry (Patient-20)

Well, that's alright if you've got somebody like, you know, a family member. But if you haven't - like me - where do I go if I've got 'flu. You know, what happens to me? I don't really want to go into hospital for 'flu (Patient-20)

Support from Friends

Support from friends and neighbours was described by participants, including helping out if needed, being second in line for personal alarm calls, or even ringing to check how the participant is coping. A few participants described situations where neighbours had actively helped them such as checking they are settled at home after returning from hospital, driving them to their GP appointments, or preparing meals for them:

[Name], next door but one, he phones every morning. And this lady next door phones. They all phone in the morning to see I'm alright, you know (Patient-18)

You know, if you... And he's [neighbour] number one on the... Number two, after me, on the red button alert (Wife of Patient-8)

The Responsibility of the Spouse

Some participants with spouses who had become their carer, or the spouses of the participants themselves, described the strain of being a carer including the burden of responsibility to do everything, and the tiring effects:

It puts a lot of strain on her. More than it should. But... Nobody else can do it as well. (Patient-13)

I have a sleep when the carers are here sometimes, because I do get very tired. Because I am 81. So... I do get tired (Wife of Patient-13)

My husband has done resus' on me seven times. So it's very hard (Patient-21)

Continuity of Care and Attitudes towards Health Professionals

Preference for a Particular GP

The majority of patients recounted that they try to see the same GP, with some participants mentioning that this is usually their nominated GP. Reasons participants stated they see the same GP included allowing for a doctor-patient relationship to evolve, for trust to develop, feeling that their GP has a good knowledge of their health, and because they are not rushed. Habit and time saving were also mentioned by participants:

I have a nominated GP. Who was the one I nominated when I first came. And she's the one I've seen most regularly (Patient-8)

When I talk to [GP], like I said before, he's like family and I trust him, you know (Patient-15)

Confidence in Health Professionals

The vast majority of patients felt that they had received excellent health care, and described having confidence in health professionals and described GPs, nurses, physiotherapists, consultants and carers very positively. Two participants, however, described a lack of confidence in their GP. These participants had eight and twelve hospital visits in the twelve months prior to their interview:

She's [GP] just amazing. She really is. And the district nurses are wonderful as well (Wife of patient-13)

She [physiotherapist] knew exactly what my problems were (Patient-9)

So, really, if I do feel ill the GP, really, is almost the last person I should ask for help. I think I'm more inclined to phone 999 and get the ambulance service. Because at least I get - from the paramedics that come, at least I get a proper examination (Patient-20)

Decision Making

Shared Decision Making between Patient and Health Professional

A few participants described instances of shared decision making and responsibility between themselves and their GP or specialist, where they had discussed their healthcare together to agree on a particular approach to treatment. Moreover, a few participants mentioned that they felt that there could be more open discussion about treatment with their GP compared to in the past:

I can work with [oncologist] and the general planning and work out... (Patient-13)

It's up to me. And the GP here. Between us, to decide if we wanted to do that [amputation] (Patient-8)

Patient Decision Making

Most participants recounted situations where they had been involved in making a decision regarding their health, such as deciding to go home from respite care, deciding against moving out of their house into a care home, stopping their medication or deciding against having an operation. These decisions were either made against the advice of a health professional or without discussion with a health professional:

I said, "I'm not stopping in there, doctor." She said, "Well, you might fall. And we don't want you to fall. And get a broken arm." I said, "I don't want pneumonia either." And I came home. (Patient-6)

And I've reduced that [sulphasalazine] myself, and I haven't even told the doctor (Patient-16)

It's so good now, when I get the letter asking to go for another colonoscopy, I'm seriously thinking of saying no thank you (Patient-16)

Family Decision Making

A few participant interviews revealed scenarios where family decision making was involved regarding the participant's health care, such as stopping medication or deciding they needed to go to hospital:

But we did speak to the doctor and they actually stopped some of his medication and things (Granddaughter of Patient-6)

I actually asked the hospital doctor to have him admitted, because I knew I couldn't cope at home if he had another fall (Wife of Patient-7)

Discussion

Summary

Generally, participants felt that the health care they received was excellent, and the majority of patients described having trust and confidence in their health care providers, and continuity in care from health professionals was important to patients. Moreover, continuity of care could help promote shared decision making and reduce the challenges of patient decision making against or without the advice of a health professional.

Participants perceived that taking preventative medication, having physical aids, adaptations within their homes, living a healthy lifestyle that includes healthy food and exercise, resting and knowing their limitations were enablers of avoiding an unplanned hospital admission, although the benefit of these may also be challenged by patient decision making. Participants also felt that support networks of families, friends and/or neighbours helped them avoid hospital and reduced anxiety. The strategies that patients described they use to cope with their health conditions included acceptance, positive reinterpretation and growth, mental disengagement, and focus and venting of emotions.

These findings show insights into the perceptions and attitudes of this cohort of high risk patients towards their health and the health care they receive, and provides a deeper understanding of the behavioural aspects that contribute to high risk patients avoiding unplanned hospital admissions.

Strengths and Limitations

This study attempts to highlight the behavioural and attitudinal effects on patient outcomes and hospital admission avoidance. Since this study involved a sample of twenty-one patients and nine family members or carers from Northumberland, these data may not be generalisable outside of the study sample. Moreover, this study reports only this cohort of patients' own personal self-identified issues. However, the data captured by this study reached saturation within the participant sample and therefore may be transferrable.

It is possible that interviews with carers of high risk patients who lacked capacity would have provided different insights into the attitudes, experiences and decision making regarding unplanned hospital admission. Additionally, interviews with patients with mental health issues, especially anxiety, may provide deeper understanding on the influence of the themes that emerged, notably coping strategies. However, due to the nature of mental health condition/s, this group of patients are difficult to recruit to interview studies. Moreover, interviews with GPs, community nurses and other key health professionals would provide beneficial insights.

As with all qualitative studies this project may have been subject to interviewer bias, however, two researchers were involved in the data analysis, and the interviewer did not have medical training or prior medical assumptions.

Comparisons with Existing literature

Preventative medication was described by patients in our study to enable them to avoid hospital, and medication adherence has been shown to reduce readmission rates by more than double than low adherence [21], and almost half of avoidable hospital admissions are caused by non-adherence [22]. Moreover, adaptations in the home, environmental aids, and assistive technology as

mentioned by our participants may help prevent hospital admissions in dementia patients [23] and patients with a clinical diagnosis of stroke [24].

Acceptance was an important coping strategy to patients in our study and in the literature less use of acceptance and high avoidance behaviour has been associated with the readmission of patients with Ischaemic heart disease [25], significantly higher anxiety and stress levels in chronically ill older patients [26], and greater anxiety and depression in patients living with the risk of serious arrhythmias and sudden cardiac death [27]. Moreover, positivity was used by some of our patients to cope with their health, and positive thinking has been found to be used by the majority of patients prior to cardiac surgery [28], and strategies focusing on problem solving and having a positive outlook are related to lower anxiety levels in patients with traumatic brain injuries and orthopaedic patients [29]. Other studies have also found that seeking help from others including family, health professionals and other patients improve patient outcomes [28, 30], however, religious coping [28, 31] has also been shown to improve patient outcomes, which was not discovered in our study.

Social support was crucial to our patients, and similarly has been found to be a key factor in the psychological wellbeing, health and coping behaviour of elderly cancer patients [32]. Similar to our study, neighbours as sources of support was documented in a study with patients with ischaemic heart disease [25]. Next of kin was important in contributing to older patients feeling safe during hospital admission [33], and male cancer patients who were married showed less psychological distress and more determination in comparison to patients who were not married [32]. Moreover, lack of family support is associated with more hospitalisations in patients with heart failure [34], and social isolation is associated with multiple hospital admissions for older patients with chronic disease [35]. It has been documented that family members of elderly cancer patients carry financial, professional, emotional and social burdens [32], and many family caregivers feel overstrained [32], as shown in our study.

As mentioned by our participants, higher continuity of care has been associated with higher levels of trust between a patient and GP [36], and although not findings of our study, patient understanding of their illness [37] and better quality of disease management [38] is also associated with continuity of care. Relationship continuity is related to patients feeling able to cope with their condition, and continuity has the potential to improve adherence to medication regimes [39], and high levels of continuity of GP care are associated with reduced hospitalisations among older patients [40, 41]. Furthermore, patients who experience discontinuity in their care are much more likely to have poor treatment and medicine adherence [37], as well as being more likely to have depression, experience symptoms, and are more likely to attend accident and emergency [42], which was also the case for the few patients who reported lack of confidence in their GP in our study.

Implications for future research and/or practice

To our knowledge, this is the first study to demonstrate the enablers used by high risk patients who successfully avoid hospital admission. The enablers such as preventative medication [21, 22], daily living aids and adaptations in the home [23, 24] and support from networks of family, friends and neighbours [32, 33, 35] were important to patients, as well as family members and carers in our study. Acceptance of their current health status and positive reinterpretation adjusting their expectations were strong messages from this cohort. Acceptance of the effects of their health condition and/or old age, acceptance of not being able to do certain things anymore and positive thinking through expert patient, health professional or care giver discussions may help receptive patients cope with their health at home and improve self-efficacy.

Promoting continuity of care from GPs and other health professionals, by enabling patients to see the same professionals will likely contribute to improving trust and confidence, encourage shared decision making and improve patient outcomes and wellbeing, and may help reduce unplanned hospital admissions. Although difficult in modern day general practice, implementing continuity of care may help support a health system with an increasing number of patients with multi-morbidities.

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Ethical Approval

Ethical approval was obtained from North West - Haydock Research Ethics Committee. Ethical approval was obtained from University of Sunderland Ethical Committee. Governance approval was obtained from the Health Research Authority (HRA)

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