

## Attitudes, perceptions, and behaviours associated with hospital admission avoidance:

a qualitative study of high-risk patients in primary care

### Abstract

#### Background

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

#### Aim

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

#### Design and setting

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

#### Method

There were 30 participants in this study, of whom 21 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

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

#### Conclusion

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

#### Keywords

frail elderly; grounded theory; high-risk patients; hospital avoidance; qualitative research; unplanned admissions.

### INTRODUCTION

The UK population is increasing and ageing, with a rise of 12%, 18%, and 40% predicted for 2015–2020 in the populations aged >65, >85, and >100 years, giving an increase in 1.1 million, 300 000 and 7000 people in each age group, respectively.<sup>1</sup> Because health generally decreases with age, costs to adult social care, community-based health services, outpatient appointments, and non-elective and elective admissions all increase with age. Moreover, those aged >75 years 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, respectively.<sup>2</sup> Additionally, care of people with long-term conditions accounts for 70% of the money spent on health and social care in England.<sup>3</sup>

With an increasing population of older people with complex comorbidities, disability, frailty, and high social and healthcare requirements, healthcare 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,<sup>4</sup> systems of screening, assessment, referral, and follow-up,<sup>5</sup> and detailed assessments and management plans tailored to individual patients by a community multidisciplinary team<sup>6</sup> have shown improved health outcomes and physical performance. However, most studies to date have failed to reduce hospital admissions in frail and older 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 healthcare 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 included people with long-term conditions and/or those at high risk of hospital admission or readmission.<sup>7</sup> However, the specialist geriatric input into primary care multidisciplinary team meetings involved in the NHRPP was felt to have little impact on reducing hospitalisation.<sup>8</sup>

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<sup>8</sup> may help patients avoid hospital admissions. Clinical factors such as patient ability to recover after functional decline,<sup>9,10</sup> relapse or complications of their condition,<sup>7</sup> low health status,<sup>11</sup> low-quality inpatient care,<sup>12</sup> and lack of connectivity of care between hospital and the community<sup>6</sup> have conversely been associated with more frequent hospital admissions. Social care factors including poor carer support<sup>6</sup> and medication management,<sup>6,7</sup> as well as patient factors including knowledge or information

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## 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 in an increasing population of older people, while reducing healthcare resources and cost implications. The outcomes from this qualitative interview study showed that the physical enablers, such as preventive medicine, daily living aids, and the influence of support networks of family and friends, are important in helping high-risk patients to 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 may 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, and could help to promote shared decision making, reduce anxiety, and also reduce unplanned hospital admissions.

accessed by the patient,<sup>8</sup> self-management, individual health beliefs,<sup>8</sup> self-efficacy,<sup>13</sup> and lack of physical activity<sup>11</sup> 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 frail and older patients.<sup>13</sup>

Although the factors contributing to hospital admission or 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 older patients<sup>14</sup> and specialist input<sup>8</sup> within primary care have little effect on hospital admissions. Moreover, access to expertise in the care of frail and older patients was perceived to be a barrier to hospital admission avoidance,<sup>15</sup> as were clinical error, delayed care seeking, home care access, and minimal care.<sup>16</sup> Because the majority of studies to date have focused on patients who have had multiple hospital admissions, there is a lack of knowledge on the experiences and behavioural factors of high-risk patients who manage to avoid unplanned hospital admissions. Identifying the enablers of avoiding hospital admissions within this cohort can be used

to improve their management and increase the population of patients who are able to stay at home and avoid unplanned hospital admissions, improving wellbeing and quality of life, as well as reducing healthcare resource implications and costs.

## METHOD

### Study design

This is a qualitative, primary care 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) about 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 the Northumberland Clinical Commissioning Group, and all 44 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. Subsequently, 22 patients contacted the researcher to take part; however, one patient withdrew from the study before being interviewed owing to poor health.

In total, 30 participants took part in a one-off interview with the researcher: 21 of who were high-risk patients from seven different GP practices; seven were spouses; one was a paid carer; and one was a patient's granddaughter. In the 12 months before their interview, 13 patients had had no unplanned hospital admissions, whereas, out of the remaining patients, unplanned hospital visits ranged 1–12 admissions (Table 1). All participants were white and spoke fluent English; their socioeconomic class ranged from 1 to 8, where a value of 1 represents higher managerial, administrative, and professional occupations and a value of 8 represents those who have never worked and those who are long-term unemployed.<sup>17</sup> Information on whether participants had advanced care directives or 'do not resuscitate' decisions were not collected. 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 mental capacity. Other exclusion criteria were age <65 years or no registration on the NHRPP. Inclusion criteria were registration on the NHRPP, and either no unplanned hospital admission in the past year, or return from hospital within the past month with three or more multiple hospital admissions in the previous 12 months.

**Table 1. Participant characteristics**

Patient ID	Sex	Age, years	Hospital visits in 12 months before interview, <i>n</i>	Interviewed alone	Lives alone	Paid carers	National Statistics Socioeconomic classification <sup>17</sup>	Comorbidities
Patient-1	F	71	0	No (husband present and contributed)	No	No	2	Hypothyroidism, type 2 diabetes, previous breast cancer, depression, vitreous detachment in both eyes, hypertension
Patient-2	M	90	0	Yes	No	No	3	COPD, atrial fibrillation
Patient-3	M	73	3	Yes	Yes	Yes	6	History of strokes, Parkinson's disease
Patient-4	F	76	0	Yes	No	No	7	Osteoporosis, vertebral wedge fractures, coronary stent, leaky heart valve, kidney problem
Patient-5	F	91	0	Yes	Yes	No	1	Type 2 diabetes, atrial fibrillation, hypothyroidism
Patient-6	M	96	12	No (granddaughter present and contributed)	Yes	Yes	7	Unstable angina, history of multiple pulmonary embolisms, enlarged prostate, haemorrhoids, diverticulitis, asthma, osteoarthritis, poor eyesight (after cataract procedure), chronic kidney disease stage 3, ischaemic heart disease, postural hypotension, benign paroxysmal vertigo
Patient-7	M	78	0	No (wife present and contributed)	No	No	6	Type 2 diabetes, gout, arthritis, sleep apnoea
Patient-8	M	89	0	No (wife present and contributed)	No	No	1	Venous leg ulcers, hypothyroidism, high cholesterol
Patient-9	M	89	1	Yes	No	No	1	Angina, stroke, prone to falls, arthritis
Patient-10	M	64	0	No (carer present and contributed)	Yes	Yes	8	Fibrodysplasia ossificans progressiva, osteoporosis, irritable bowel syndrome, hypothyroidism
Patient-11	F	87	0	Yes	Yes	No	2	COPD
Patient-12	F	58	0	Yes	No	No	3	Breast cancer
Patient-13	M	85	0	No (wife present and contributed)	No	Yes	2	Prostate cancer, atrial fibrillation
Patient-14	F	63	0	Yes	No	No	5	COPD, hypothyroidism
Patient-15	F	75	5	Yes	No	No	7	COPD
Patient-16	M	78	0	No (wife present and contributed)	No	No	7	Ulcerative colitis, COPD, tremors, high cholesterol
Patient-17	M	80	0	No (wife present and contributed)	No	No	1	Bronchiectasis, heart condition
Patient-18	M	79	12	Yes	Yes	Yes	7	Bowel cancer, kidney failure, heart condition, COPD
Patient-19	M	79	1	Yes	Yes	Yes	7	Heart condition, stroke
Patient-20	F	80	8	Yes	Yes	No	2	Recovering from pneumonia, stroke, breathlessness
Patient-21	F	58	5	No (husband present and contributed)	No	No	5	Asthma, reflux, sleep apnoea, heart problems, prone to anaphylaxis, prone to hyperventilation

*COPD = chronic obstructive pulmonary disease.*

Further suitability for participation, such as health status of the patient, was decided by the recruiting GP practices.

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 participating GPs who were recruited had a mean Quality and Outcomes Framework performance total achievement percentage point (2016–2017) of 99.4% (range 98.2–100%).

The study ran from December 2016 until June 2017, and the researcher had not met any of the participants before the interview.

All of the semi-structured interviews took place in the participants' homes and on average interviews lasted 1 hour. Participants were not paid for their time, and no participants lacked mental 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.<sup>18</sup> Theoretical sampling using themes emerging from the interviews was performed until data saturation occurred during analysis of interview transcripts.<sup>19</sup>

### Analysis

The interviews were conducted by the first author using an adapted grounded-theory methodology. The final interview topic guide used to lead the semi-structured interviews is available from the authors on request. Interviews were audiorecorded, transcribed verbatim, and anonymised. Interview data were coded by the first author 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.<sup>20</sup> Data analysis, categorising, and inductive re-categorising of themes were performed by the researchers. Transcripts were returned to participants for comments, however, no feedback was received.

### RESULTS

Patient age range was 58–96 years; nine were female and 12 were male (Table 1).

Five of the eight patients who had been to hospital as an unplanned admission before the interview lived alone and generally had higher rates of hospital admission than those from this subgroup of patients who 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

**Preventive 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 hospital attendance:

*'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 [P]1)

*'You don't know what's going to happen tomorrow, you know. Like the time I got pneumonia.'* (P7)

**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 sticks, alarms to press if they fell, adapted showers, stair lifts, and commodes, helped them within their home and reduced their need for hospital admission:

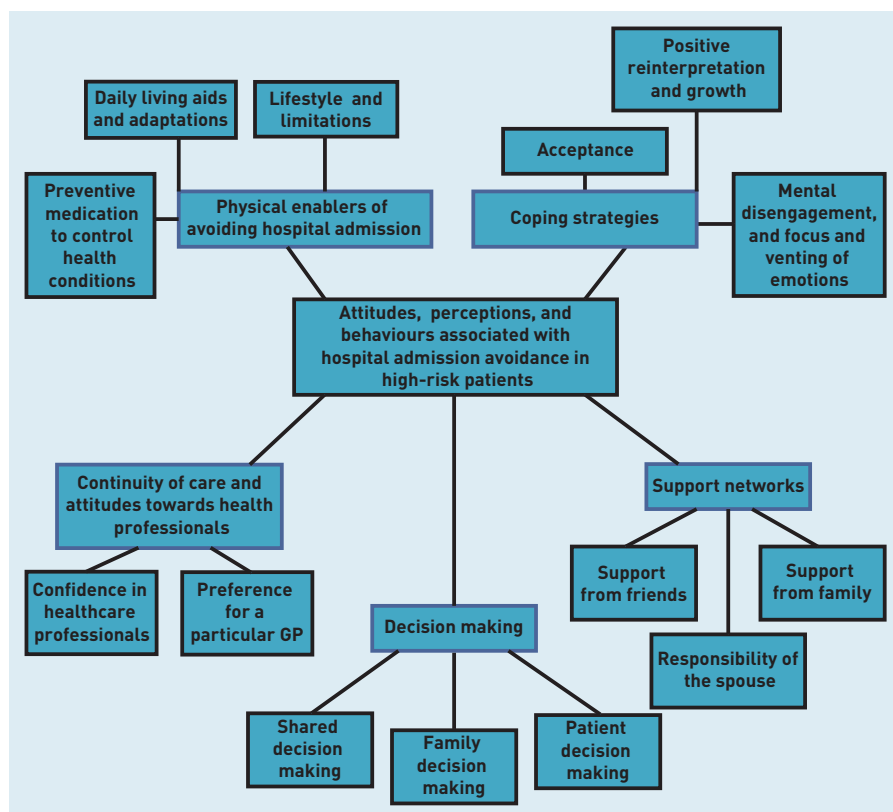
*'Aids. Your chair, your walkers. We have bed aids. We have the carers coming in three times a day. We have us coming in at least once a day. We have a bath aid. We have everything we possibly can.'* (Granddaughter of patient [GdP]6)

*'But I don't have great difficulty about doing the walking, as long as I've got my Zimmer.'* (P8)

*'Getting rid of the bath was the first thing. Putting the shower in. Then the stair lift. And I also bought a commode.'* (P20)

**Lifestyle and limitations.** Healthy eating, having a routine lifestyle, getting some

Figure 1. Concept diagram showing the attitudes, perceptions, and behaviours associated with hospital avoidance in high-risk patients.



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.'* (P20)

*'I think it's important to me to get a measure of exercise every day.'* (P8)

*'That, and keep a clean life. You know, don't smoke, don't drink heavily.'* (P2)

### 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 12 months who 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 were things they could no longer do.

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.'* (P8)

*'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.'* (P12)

*'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.'* (P11)

**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 remain positive about their health. 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 [WP]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.'* (P5)

*'It's difficult. Because, you see, when you're feeling depressed it's just go for a hobby. But what can I do?'* (P10)

*'I try to stop them [repeat hospital visits] if I can myself. They stopped phoning 999, you know, but ... I get stressed and ... anxious.'* (P18)

**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.'* (P4)

*'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.'* (P10)

*'In some ways, I can't complain. On down days, I do complain to myself.'* (P5)

*'Oh, he's horrible to me on a bad day.'* (GdP6)

### Support networks

**Support from family.** The majority of participants described a social support network of family that contributed to helping them cope with their health conditions by physical support mechanisms, including taking on carer roles, organising medication, someone they would call when they did not feel well, 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.'* (GdP6)

*'My granddaughter here, who's ... She's a*

nurse ... And she takes care of me.' (P19)

Spouses were found to play a key role in looking after patient needs. However, a few patients explained that they did not have anyone to support them and also felt that living alone contributed to the anxiety they felt about their health, such as when unfamiliar symptoms arose:

*'Oh, yes. I feed him, look after him. Examine his legs every day to see if his cellulitis is back.'* (WP7)

*'The enablers [of avoiding hospital]? Well, my wife, again.'* (P8)

*'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.'* (P20)

*'Well, that's all right 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.'* (P20)

**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 telephoning 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 all right, you know.'* (P18)

*'You know, if you ... And he's [neighbour] number one on the ... Number two, after me, on the red button alert.'* (WP8)

**Responsibility of the spouse.** Some participants with spouses who had become their carers, 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.'* (P13)

*'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.'* (WP13)

*'My husband has done resus' on me seven times. So it's very hard.'* (P21)

## 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 for seeing the same GP included allowing for a doctor–patient relationship to evolve, developing trust, 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.'* (P8)

*'When I talk to [GP], like I said before, he's like family and I trust him, you know.'* (P15)

**Confidence in healthcare professionals.** The vast majority of patients felt that they had received excellent health care, and described having confidence in health professionals. They described GPs, nurses, physiotherapists, consultants and carers very positively:

*'She's [GP] just amazing. She really is. And the district nurses are wonderful as well.'* (WP13)

*'She [physiotherapist] knew exactly what my problems were.'* (P9)

Two participants, however, described a lack of confidence in their GP. These participants had eight and 12 hospital visits in the 12 months prior to their interview. One remarked:

*'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.'* (P20)

## 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 health care together to agree on a particular approach to



treatment. Moreover, a few participants felt that there could be more open discussion about treatment with their GP compared with the past:

*'I can work with [oncologist] and the general planning and work out ...' (P13)*

*'It's up to me. And the GP here. Between us, to decide if we wanted to do that [amputation].' (P8)*

**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.' (P6)*

*'And I've reduced that [sulfasalazine] myself, and I haven't even told the doctor.' (P16)*

*'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.' (P16)*

**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.' (GdP6)*

*'I actually asked the hospital doctor to have him admitted, because I knew I couldn't cope at home if he had another fall.' (WP7)*

## DISCUSSION

### Summary

Generally, participants felt that the health care they received was excellent. The majority of patients described having trust and confidence in their healthcare 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 preventive 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, though 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. Strategies that patients described 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 provide 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. Because this study involved a sample of 21 patients and nine family members or carers from Northumberland, these data may not be generalisable outside 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 mental 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 a deeper understanding of the influence of emergent themes, notably coping strategies. However, due to the nature of mental health conditions, this group of patients are difficult to recruit for 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.

### Funding

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### Ethical approval

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

### Provenance

Freely submitted; externally peer reviewed.

### Competing interests

The authors have declared no competing interests.

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### Comparison with existing literature

Participants in this study described preventive medication as an enabler to avoid hospital, and medication adherence has been shown to reduce readmission rates by more than double when compared with low adherence;<sup>21</sup> almost half of avoidable hospital admissions are caused by non-adherence.<sup>22</sup> Moreover, adaptations in the home, environmental aids, and assistive technology, as mentioned by participants in this study, may help prevent hospital admissions in patients with dementia<sup>23</sup> and patients with a clinical diagnosis of stroke.<sup>24</sup>

Acceptance was an important coping strategy to participants in this study, and in the literature less acceptance and high avoidance behaviour have been associated with: readmission of patients with ischaemic heart disease;<sup>25</sup> significantly higher anxiety and stress levels in chronically ill older patients;<sup>26</sup> and greater anxiety and depression in patients living with the risk of serious arrhythmias and sudden cardiac death.<sup>27</sup> Moreover, positivity was used by some patients in this study to cope with their health and positive thinking has been found to be used by the majority of patients before cardiac surgery.<sup>28</sup> 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.<sup>29</sup> Other studies have also found that seeking help from others including family, health professionals, and other patients improved patient outcomes.<sup>28,30</sup> Religious coping has also been shown to improve patient outcomes,<sup>28,31</sup> which was not found in the present study.

Social support was crucial to patients interviewed in the present study, and has been found to be a key factor in the psychological wellbeing, health, and coping behaviour of older patients with cancer.<sup>32</sup> Similar to this study, neighbours as sources of support was documented in a study of patients with ischaemic heart disease.<sup>25</sup> Next of kin were important in contributing to older patient's feelings of safety during hospital admission,<sup>33</sup> and male patients with cancer who were married showed less psychological distress and more determination in comparison with unmarried patients.<sup>32</sup> Moreover, lack of family support is associated with more hospitalisations in patients with heart failure,<sup>34</sup> and social isolation is associated with multiple hospital admissions for older patients with chronic disease.<sup>35</sup> It has been documented that family members of older patients with cancer carry financial, professional, emotional, and social

burdens,<sup>32</sup> and many family caregivers feel overstrained,<sup>32</sup> as is also shown in this study.

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

### Implications for practice

To the authors' knowledge, this is the first study to demonstrate the enablers used by high-risk patients who successfully avoid hospital admission. The enablers, such as preventive medication,<sup>21,22</sup> daily living aids and adaptations in the home,<sup>23,24</sup> and support from networks of family, friends, and neighbours,<sup>32,33,35</sup> were important to patients, as well as to family members and carers in this research. 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 any more, and positive thinking through expert patient, health professional, or caregiver 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 to 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 multimorbidities.



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