Report on Frequent Attenders

Community Partnership Hub demonstration research project

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Executive Summary

What does this report cover, and why is this study important?
People who frequently attend healthcare services, such as Accident and Emergency (A&E), may have unmet health and social care needs. In this study we aimed to identify who might be more likely to attend healthcare services frequently, and what can be done to help to meet the needs of these frequent attenders and help reduce frequent attendance in order to inform future service development in Exeter and Devon.

What did we do?
Our study comprised a review of scientific papers summarising research on characteristics of frequent attenders and what interventions may be put in place to effectively reduce frequent attendance. The purpose of this review was to summarise what research had already been conducted.

What did we find?

- Frequent attenders tend to experience the following health and social challenges: poor mental and physical health, lower education levels, experience of homelessness or housing insecurity, living in areas of deprivation, substance/alcohol misuse and low social support/social isolation. They are also more likely to live closer to healthcare settings. Findings on age and gender were inconclusive.
- Case management and care plans were the interventions that were most reported in the scientific reports to help those who frequently attend. Both interventions are examples of mapping a patient's healthcare plan and ensuring they receive help from the appropriate healthcare professional. Findings in the scientific literature about the effectiveness of interventions were mixed and inconclusive.

Recommendations

- A more detailed realist analysis (which analyses causal pathways) of the studies identified in the reviews would be useful to identify how interventions reduce frequent attendance and which elements are the most helpful for which population/patient subgroups.
- Further research could be conducted into frequent attenders in areas other than A&E, in primary care settings for example.

Acronyms

A&E	Accident and Emergency department
CCA	Corrected covered area
VCSE	Voluntary, community and social enterprise

Introduction

This report summarises a three-month demonstration study for the Community Partnership Hub. The Hub connects public, voluntary, community and social enterprise (VCSE) sector organisations in Devon and the South West with researchers and students at the University of Exeter. Its aim is to help establish long-term, sustainable relationships which support partnerships through research projects, student placements, internships and volunteering.

A demonstration research project was conducted during the summer of 2022, to test ways of working between the university and local organisations. The project conducted research in three areas which had been identified as priorities by the Healthy Exeter Panel (a task-and-finish group comprising representatives from NHS and voluntary organisation health and wellbeing providers), in order to inform future service development in Exeter and Devon. This report presents findings on one of these areas: characteristics of frequent attenders and interventions for reducing levels of frequent attendance.

Definitions of frequent attenders

We define 'frequent attender' as a person who visits or uses a service with high frequency. This may or may not be inappropriate attendance, for example it may be due to high levels of health needs or inaccessibility of other services. Previous studies and current services all define frequent attendance in slightly different ways, either specifying a threshold of visits per month/year (often more than once every month or two) or the most frequent attenders within a service (the top 5% for example).

Methodology

An 'umbrella' review – a review of the evidence from academic studies - was conducted, to identify characteristics and interventions for frequent attenders. This type of review compiles evidence from multiple existing reviews. This method is useful for efficiently summarising the evidence on a particular topic and identifying where there is evidence of which interventions work or not. The design (or 'protocol') for this review was registered on PROSPERO, a database for reviews such as this (registration number CRD42022344201).

Search strategy

Several iterations of scoping searches were piloted in different databases prior to the final searches taking place. This was to ensure that the search terms used yielded an appropriate number of relevant results, without being too sensitive or specific. After this scoping period, the final search strategy was applied to the following databases: Medline, Embase, APA PsycINFO, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PROSPERO for protocols of existing reviews, and the Cochrane library of systematic reviews. For detail on the final search strategy for Medline, see table 1.

Table 1: *the search strategy for Medline and Embase, and the number of titles this retrieved on the date of the final searches*

1	(frequent* adj3 attend*) or (frequent* adj3 user*) or (frequent* adj3 utili*) or (frequent* adj3 visit*) or (frequent* adj3 consultation*) or ('high-intensity' adj3 attend*) or ('high-intensity' adj3 user*) or ('high-intensity' adj3 utili*) or (heavy adj3 attend*) or (heavy adj3 user*) or (heavy adj3 utili*) or (heavy adj3 visit*) or (heavy adj3 consultation*) or (repeat adj3 attend*) or (repeat adj3 user*) or (repeat adj3 utili*) or (repeat adj3 visit*) or (repeat adj3 consultation*) or 'access to services' or 'hard-to-reach' or 'hard to reach' or overuse or underuse or 'non-attend*' or 'no-show*' or 'missed appointment*'
2	primary care' or 'primary healthcare' or 'social care' or emergency or hospital* or outpatient* or inpatient* or Emergency Service, Hospital/ or Primary Health Care/
3	review* or meta* (title)
4	1 and 2 and 3
	1021 results on MEDLINE, 30.06.2022

[This search also included non-attenders but see separate report for these results]

Screening

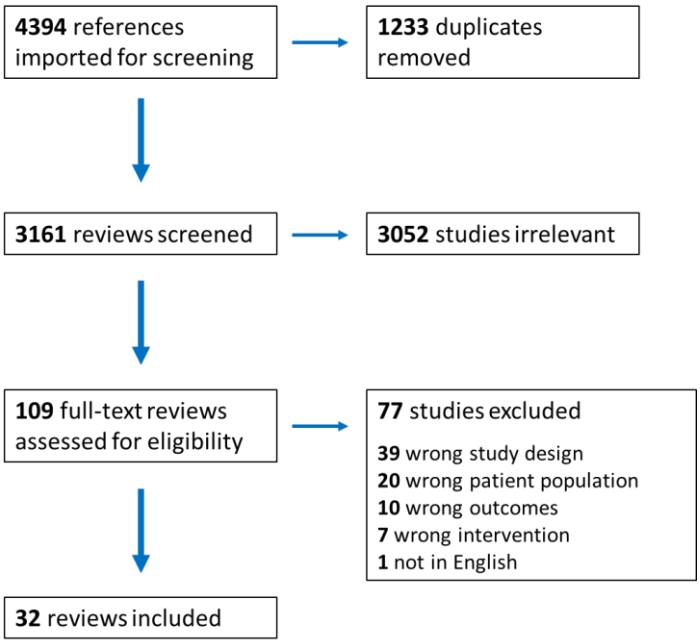
After databases had been searched, results were uploaded to Covidence software for managing systematic reviews. Title and abstract screening of all results was conducted by one reviewer (CR). 20% of the titles and abstracts were screened by two additional reviewers (SD and JS), to establish consensus in applying the inclusion and exclusion criteria. For more detail on the criteria for this review, see table 2.

Table 2: *the inclusion and exclusion criteria used for including reviews in this umbrella review*

Category	**Inclusion**	**Exclusion**
Population	Adults who attend health or social care services frequently, and adults who regularly do not attend booked appointments within health and social care	Children and adolescents aged under 18 Those with frequent attendance due to antenatal care NOT frequent attenders or non-attenders
Intervention (focus of review)	Patient characteristics associated with frequent or non-attendance, and reviews focusing on interventions conducted in health or social care to either a) reduce frequent attendance or b) increase appropriate attendance in non-attenders	Other healthcare access-related topics, such as inappropriate or unnecessary usage of services, mistreatment of health and care staff, or frequent use/non-attendance of social work-related services, such as Child Protection
Comparator	N/A – any comparator was acceptable	
Study design	Systematic reviews and meta-analyses from 2005 onwards, defined as reviews with pre-defined strategies for searching, data extracting, and synthesising findings.	Pre-2005 Non-systematic literature and scoping reviews Protocols of reviews Primary research studies Studies unavailable in English

Full text screening was done in duplicate according to the criteria for inclusion and exclusion. CR screened all full texts, and JS and SD screened half of the full texts each, establishing a consensus around the final set of texts to be included in the review. For details of the process of screening texts, see figure 1.

Figure 1: *an illustration of the process of screening reviews for final inclusion in the umbrella review*



Data extraction

Once all full texts had been included, the key characteristics of each review were extracted into Microsoft Excel by one reviewer (CR) according to a pre-defined framework. These key characteristics included the date of review, setting of the review (for instance, hospital emergency departments), whether the review explored characteristics of frequent or interventions to mitigate frequent/non-attendance, and the population group studied (for example, elderly populations).

In-depth data extraction differed for reviews investigating interventions and characteristics. For those focusing on characteristics associated with frequent, each characteristic mentioned in a review was extracted and placed in a table. For each characteristic, the findings of each review were documented (for example, whether they were associated with frequent attendance). For each characteristic, the number of primary studies reporting this characteristic within a review were also noted.

For reviews focusing on interventions, the names of the interventions were extracted, alongside a description of the intervention according to the review, how outcomes were measured, findings, and findings by population group, if applicable. For each intervention type, the number of primary studies reporting this intervention within each review were also noted. To ensure this extraction was accurate and logical, this was reviewed by other reviewers on the team.

Synthesis of findings

Also conducted in Microsoft Excel, a narrative synthesis was undertaken to make sense of these findings across reviews. During this process, any common characteristics or interventions which were mentioned across multiple reviews were collated. This meant that for each characteristic or intervention, a table was produced detailing which reviews they were mentioned in, alongside the findings for each review, and additional details about population group-specific findings. After this,

these tables were synthesised narratively, in order to produce a full description of what was said in the literature about each intervention and characteristic. This process was conducted by one reviewer (CR) and overseen by other members of the review team.

Findings

Characteristics of frequent attenders

Table 3: *number of reviews which analysed levels of frequent attendance by social, health and sociodemographic characteristics*

Characteristic	Number of reviews reporting
Age	10
Chronic physical conditions	9
Gender	8
Mental health	7
Marital status	6
Socioeconomic status	6
Employment	6
Accessing other forms of healthcare	5
Substance/alcohol use	4
Education	4
Self-rated health	4
Prescriptions	4
Social support	4
Ethnicity	3
Pain	2
Homelessness	2
Distance from healthcare setting	2

Age

Age of frequent attender was the characteristic that was mentioned most frequently in the reviews discussing characteristics of frequent attenders (10 out of 12 reviews) (1–10). It was reported in hospital emergency settings (6/10 reviews), and primary care settings (3 reviews), and all healthcare settings (1 review). Although the results were mixed, the majority of reviews reported that older age was associated with an increased likelihood of frequent attendance. This was found in 6 of the 10 studies (2–5,8,9). Two of these reviews were specifically conducted in older populations, and they found that frequent attendance to hospital and primary care settings was highest amongst the oldest old (4,5). Three reviews found mixed results or found no association with age, and one review of frequent attendance to a hospital emergency department for mental health reasons found that the majority of frequent attenders were under 40 (7).

Gender

Gender was examined in 8 reviews (1,3,5–10). These were set in hospital emergency settings (4 reviews), primary care (3 reviews), and all healthcare settings (1 review). Results were mixed, with 5 reviews finding no association between gender and frequent attendance, or finding mixed results (3,5,6,9,10). Two studies reported that male gender was associated with frequent attendance (7,8). One study reported that men were more likely to be frequent attenders for mental health problems at a hospital emergency department (7). Another reported that amongst the most frequent

attenders, the proportion of men increased (8). Female gender was found to be associated with frequent attendance in one study of emergency department frequent attenders in the United States (1).

Marital status

Marital status was explored in six reviews (1,3,5,7,8,10). These were set in hospital emergency settings (3 reviews), primary care (2 reviews), and all healthcare settings (1 review). The effect of marital status on the likelihood of frequent attendance was unclear. Four reviews reported mixed results or no trend (1,3,5,10). Two reviews found that being unmarried (single, separated, divorced or widowed) was associated with being a frequent attender to hospital emergency departments (7,8). In one review of frequent attenders in primary care, a positive association was found between being married and being a frequent attender. However, in the same review, three other studies reported and that they found no association between marital status and frequent attendance (10).

Socioeconomic status

Socioeconomic status was explored in 6 reviews, in hospital emergency settings (3 reviews), primary care (2 reviews), and all healthcare settings (1 review) (1–3,6,9,10). This was measured in different ways, including health insurance type, income, and self-reported financial pressure. Socioeconomic status was found to be associated with frequent attendance in five of the six reviews that explored this association (1–3,6,9). Elements of socioeconomic status associated with frequent attendance included having Medicaid (medical coverage for low-income groups in the United States), having a lower income, and living in an area of high deprivation. One review based in primary care reported one study which showed that increased socioeconomic status was associated with frequent attendance in those over age 65 (9).

Ethnicity

Three reviews, set in hospital emergency settings (2 reviews), and all healthcare settings (1 review), explored the relationship between ethnicity and frequent attendance (1,3,6). Overall, it was found there was an association between black ethnicity and being a frequent attender. However, 2 studies found there was an association between being white and being a frequent attender (1,6). One review reported that 70% of their primary studies found a correlation between race and frequent attendance but gave no further details (3).

Employment

Employment was reported in six reviews, which were set in hospital emergency settings (4 reviews), primary care (1 review), and all healthcare settings (1 review). All six reviews reported a positive association between unemployment and frequent attendance (1–3,7,8,10).

Chronic physical conditions

The presence of chronic physical conditions was a characteristic examined in 9 reviews (1–5,8–11). These took place in hospital emergency settings (5 reviews), primary care (3 reviews) and all healthcare settings (1 review). In all reporting reviews, having a chronic condition was found to be associated with an increased likelihood of being a frequent attender. A range of chronic conditions were reported on, including asthma, cardiovascular disease, and COPD, as well as the general presence of chronic conditions and comorbidities. As well as the presence of chronic physical conditions, it was found that having multiple chronic conditions also increased the likelihood of frequent attendance in various healthcare settings.

Pain

Two reviews, both set in hospital emergency settings, explored the relationship between pain and frequent attendance (11,12). In all primary studies in both reviews, it was found that the presence of pain/chronic pain was strongly associated with frequent attendance to emergency departments.

Mental health conditions
Seven reviews explored the association between mental health conditions and frequent attendance (2,3,5,7,8,10,11). These were set in hospital emergency settings (4 reviews), primary care (2 reviews), and all healthcare settings (1 review). In all reviews and healthcare settings, the presence of mental health conditions was associated with increased likelihood of frequent attendance. Most studies did not split this up by mental health condition, but in a review specifically exploring frequent attenders to emergency departments for mental health conditions, it was found that the most common mental health conditions associated with frequent attendance were psychotic and affective disorders, such as anxiety and depression (7).

Self-rated health
Patient self-rated health was explored in relation to frequent attendance in 4 reviews (1,3,10,12). These were set in hospital emergency departments (2 reviews), primary care (1 review), and all healthcare settings (1 review). Reported measurements included perceived health, self-rated disability, and self-perceived health status. Poor self-rated health was associated with frequent attendance in all four reviews. In one review of all healthcare settings, 100% of the primary studies reported a positive correlation between poor perceived health and frequent attendance (3).

Prescriptions
The number of prescriptions that an individual has was explored in relation to frequent attendance in 4 reviews (3–5,10). These were set in primary care (2 reviews), hospital emergency care (1 review), and all healthcare settings (1 review). It was found in all four reviews that a higher number of prescriptions was associated with frequent attendance. Two reviews focused specifically on this association in older people. Although one was set in primary care and the other in hospital emergency settings, it was found in both that a greater number of prescribed drugs was associated with frequent attendance (4,5).

Accessing other forms of care
Previously accessing other forms of healthcare was explored in five reviews (2–4,8,9). Three were set in hospital emergency settings, one in primary care, and one in all healthcare settings. This was defined in different ways by different reviews, and included previous hospital admission, primary care use, and use of other medical settings.

Overall, accessing other forms of healthcare was strongly associated with frequent attendance in all five reviews. In emergency settings, previous hospital admission and primary care use were both associated with frequent attendance (2,4,8). One of these studies was conducted in older adults and found that previous hospital admission was related to increased frequent attendance in hospital emergency settings (4). In primary care and all healthcare settings, use of other medical settings and persistent overutilisation of other healthcare services were both linked to increased frequent attendance (3,9).

Substance/alcohol use
Use of substances or alcohol was explored in four reviews, set in hospital emergency departments (3 reviews), and all healthcare settings (1 review) (2,3,8,11). This was defined in different ways, including illegal substance use, substance abuse, and alcoholism. In all four reviews, it was found that substance and alcohol use was strongly associated with an increased likelihood of being a frequent attender. In one international review, it was reported that in countries with national health insurance systems, substance users were four times more likely to be frequent attenders compared to non-substance users (2).

Homelessness/housing status
Two reviews explored the association between frequent attendance and housing status. They were set in hospital emergency departments and all healthcare settings (3,11). Homelessness was associated with frequent attendance to emergency departments, according to one review which reported on 2 primary studies (11). In another review, it was found 48% of primary studies found a positive correlation with frequent attendance, but no further details were given (3).

Social support
In four reviews, social support was explored in relation to frequent attendance (3–5,10). These reviews were set in primary care (2 reviews), hospital emergency care (1 review), and all healthcare settings (1 review). This was measured as social support, social anchorage (connection and shared values with a group of people in society), and loneliness. Results for the association between frequent attendance and social support were mixed. In 2 reviews, it was found that a lack of social support was associated with frequent attendance (3,4). These examined both a general population, and a population of older adults. In the other two reviews, it either was found that there was no association between social support and frequent attendance, or that results were mixed, with some primary studies reporting a link and other primary studies reporting no association (5,10).

Educational level
Educational level was explored in four reviews, set in hospital emergency settings (2 reviews), all healthcare settings (1 review), and primary care (1 review) (1–3,5). Overall, having a lower level of education was strongly linked to an increased likelihood of being a frequent attender. This was measured differently by different reviews, such as by the completion of high school, or of a bachelor's degree. The association remained regardless of the level of education. One primary study in one review exploring this association in older people found that there was no link between educational level and frequent attendance (5).

Distance from healthcare setting
Two reviews, set in all healthcare settings and hospital emergency settings, explored the relationship between the distance from a place of residence and the healthcare setting and frequent attendance (3,4). In all healthcare settings, it was found that 69% of studies found a positive correlation between frequent attendance and distance from the healthcare setting, but no further details were given (3). In hospital emergency settings, amongst an older population, living within 10km of an emergency department was associated with increased attendance (4). In the same review, living in a remote rural area was associated with a reduced likelihood of being a frequent attender (4).

Interventions to reduce frequent attendance

Table 4: *number of reviews which examined different types of interventions to reduce frequent attendance*

Intervention	Number of reviews reporting
Case management	10
Disease management/health education	7
Healthcare provider-facing interventions	6
Referral to other settings	5
Care plans	4
Home visits	3
Therapeutic interventions	2
Housing support	2

Case management

Case management was the intervention that was mentioned most frequently (10/13 of the papers), and it was mainly reported in hospital emergency settings (7/10 of the papers) (6,11,13–20). The aim of case management is to establish a holistic patient care pathway. Often taking place after a patient evaluation, case management may be delivered through a case manager or interdisciplinary teams consisting of professionals such as social workers and nurses, and can be delivered through in-person meetings or phone calls. It may involve referral to other healthcare paths, such as mental health care or medication support. It could also involve other forms of support, such as housing support, education, or domestic abuse support.

The studies mainly measured how well case management worked by measuring Emergency Department use within a set period of time after the intervention (6,11,14–16,18,19). Follow-ups varied from 3 months to 24 months. With regard to visit frequency, overall results were positive or showed no effect, with 9 reviews reporting studies that showed a significant decrease in visit frequency, and 9 reviews reporting studies that showed no significant change in visit frequency. Three reviews reported studies that showed an increase in visit frequency (13,14,19). Three reviews reported studies that showed a reduction in patient costs (6,11,13). Other less widely reported effects of case management included improved access to care, improved patient communication, improved quality of care, and improved patient satisfaction (6,13).

Most reviews (6) did not split their results according to population subgroup. In the groups that were analysed separately, case management was deemed to be effective in those with a low income, and complex social needs, such as being vulnerably housed, homeless, or having substance use issues (13,14,17). It was also found to be effective at reducing visit frequency in older patients (20). In these 10 reviews, overlap of primary studies included was low, at 5% according to the Corrected Covered Area (CCA) method for measuring overlaps in systematic reviews (21). This means that of the primary studies that were included in these ten reviews, few of them were included in more than one review, meaning that overlap of primary studies was low. This strengthens the findings of this umbrella review, as if overlap was high, it would mean that a small number of primary studies were featured in many reviews, causing their findings to be over-represented.

Care plans

Care plans were reported in 4 of the 13 reviews looking at interventions for frequent attenders (16,18,19,22). All 4 of these reviews were reporting on interventions set in a hospital emergency department. The aim of a care plan is to ensure consistency for patients as they move between healthcare settings and providers. It involves using varied types of patient assessment to develop individualised care plans, specific to each patient, to inform healthcare providers caring for these patients in the future. These are designed by an interdisciplinary team, but unlike case management, they are implemented without a case manager present.

Most reviews measured emergency department visit frequency, and follow ups varied from 3 to 24 months. Two out of the four reviews reported a reduction in emergency department visit frequency (16,22). The other two reviews reported either no change, inconsistent results, or a non-significant increase in emergency department visit frequency (18,19). In all four reviews, there were studies that demonstrated no change in emergency department visit frequency. Patient costs were examined in 1 review, where a decrease in patient costs after the utilisation of care plans was reported (19).

Most reviews did not analyse populations by subgroups. In one study, it was reported that in chronic non-cancer pain patients frequently attending emergency departments, four out of 5 studies found that care plans resulted in a statistically significant reduction in frequency of emergency departments visits (22). Care plans shared with health professionals whenever a patient presented in

an emergency department also resulted in a significant decrease in visits in this population. Overlap between the studies was 12% according to CCA scores, indicating that many of the primary studies may have been included in more than one review. The results presented here should therefore be viewed with caution, as the results of a study may have been amplified due to inclusion in multiple reviews (23).

Home visits

Home visits were reported in three studies (11,16,20). Two of these were reviews of interventions in hospital emergency settings, and one was set in general healthcare settings. All reviews measured emergency department visit frequency. Overall, they found that home visits reduced emergency visit frequency. One review also measured costs, and found a reduction in costs per patient in one study, and no reduction in costs in another (11). An increase in visit frequency was reported in two studies in one review (20). No increase in costs was found in any of the reviews. Two of the reviews did not split their population up by sub-group (11,16). One review focused specifically on older frequent attenders, which presented mixed results (20). 11 of 30 studies found a significant decrease in frequent attendance. Nine studies found no significant change, and 2 found an increase, after home visits. There was a low level of overlap in these reviews, at 4%. This means that the findings of the umbrella review are representative of the wide range of primary studies included in the featured reviews.

Disease management and health education

Disease management and health education interventions were featured in seven reviews, with several reviews reporting multiple intervention types aiming to improve disease management or knowledge (11,17,18,20,22,24,25). These interventions included group meetings with similar patients, disease and pain management interventions, and patient health education interventions. Reviews recorded varied outcomes, including healthcare visit frequency, costs per patient, and self-reported symptoms. Compared to other interventions, this group of interventions reported highly mixed results. Three reviews reported on studies that found a significant reduction in emergency department and primary care visits (11,22,25). Five reported on studies that found mixed results, or no change (17,18,20,24,25). One review found healthcare use and costs increased as a result of disease management interventions (24).

In university students, depression and anxiety management resulted in a reduced use of health services for a short period, which did not persist (24). In chronic non-cancer pain patients, pain management and behavioural interventions resulted in significant reductions in the frequency of emergency department visits (22). Group interventions and depression management were reported to be effective at reducing emergency department visits in older people (25). Two reviews reported on healthcare education intervention studies for older people, which had no effect on frequent attendance (20,25).

Referral to other healthcare settings

Direct referral to other healthcare settings was reported in five reviews (11,16,18,20,25). Three were set in a hospital ED setting, one was set in primary care, and one was set in all healthcare settings. This type of intervention involved facilitating contacts and referrals to specific healthcare providers, and in one case in an emergency department this involved the coordination of a community health worker. Patients were directed to social services, non-ED healthcare settings, and primary care. Generally, results were positive, with many studies demonstrating a reduction of visit frequency, and costs (11,16,18,25). Some reviews reported studies that had no effect, and one study reported a significant increase in primary care attendance, but a reduction in hospital admissions (25). Interestingly, where these were reported, all population subgroups were older people (18,20,25). Results in this group were positive, with a positive effect after 24 months for a community health

worker intervention, and mixed results for primary care integration (18,20). The one study reporting a significant increase in primary care attendance was a referral intervention in older people (25). This has been linked to housing support in the summary table (see Appendix I).

Healthcare provider-facing interventions
Healthcare provider-facing interventions were reported in six reviews (2,2,11,17,20,25). Three took place in hospital emergency settings, two in all healthcare settings, and one in primary care. These interventions included providing frequent attenders with interdisciplinary teams, sharing patients' information amongst professionals, and staff and provider training. These interventions had mixed results. Provider education and training mainly resulted in no significant difference in visit frequency (24,25). Surrounding a frequent attender in an interdisciplinary team was shown to be effective in 5 studies in one review, and it was shown to have no effect in 21 studies in another review (17,20).

Generally, populations were not split by subgroup. The review that found 5 studies supporting interdisciplinary teams for reducing frequent attendance was conducted in older people (20). It should be noted that 6 studies on this same intervention in the same review found no difference in frequent attendance.

Therapeutic interventions
Therapeutic interventions were reported in two reviews, which were situated in primary care and general healthcare services (20,25). They included facilitating disclosure of emotional events, acupuncture, and counselling. No significant difference was found in five of the therapeutic interventions reported: problem solving treatments, disclosure of emotional events, diagnostic interviews, acupuncture, and mindfulness. These largely took place in frequent attenders with medically unexplained symptoms, and those with mental health conditions (25). In older people, patient-caregiver counselling was more positive, with four studies associating this with a significant decrease in frequent attendance, and six studies finding no difference (20).

Housing support
Housing support was mentioned in two reviews, and covered in three studies in total (18). All studies were based in hospital emergency care. The interventions consisted of providing permanent housing to individuals through social services. One study, in a vulnerably housed population with severe alcohol problems, found no difference in emergency department use after the intervention. Two other studies of people experiencing homelessness, found both a reduction of visit frequency and cost per patient. This has been linked to referral to other healthcare services in the summary table (see Appendix I).

Summary

Frequent attenders tend to experience the following health and social challenges: poor mental and physical health, lower education levels, experience of homelessness or housing insecurity, living in areas of deprivation, substance/alcohol misuse and low social support/social isolation. They are also more likely to live closer to healthcare settings. Findings on age and gender were inconclusive. Most of the findings on interventions were mixed in that some resulted in positive outcomes for participants, and some did not.

Table 5: *Summary of findings*

Type of intervention	Evidence review findings
Social prescribing	
Therapeutic interventions (e.g. acupuncture, counselling)	Most interventions were ineffective except for patient-caregiver counselling for older people.
Care plans (plans to ensure consistency for patients as they move between healthcare providers)	Mixed findings
Person-centred (individualised coaching, strengths-based approaches)	
Health education	Mixed findings. May work best as behavioural interventions for chronic pain patients, and group interventions and depression management for older people.
Case management (defined as aiming to establish a holistic patient care pathway)	Mixed findings. Some interventions reduced frequent attendance. Some improved quality of healthcare, patient satisfaction and reduced costs.
Multi-agency teams (Providing patients with interdisciplinary teams; providing staff with training; may involve agencies meeting together)	Mixed findings
Referral to other health and social care settings (Facilitating contacts and referrals to other health and social agencies)	Mixed findings, but usually reduces frequent attendance
Multiple approaches (combine elements such as case management, care plans, multidisciplinary/agency teams and psychological therapy)	

Limitations

The evidence review was limited in that it was rapid and non-exhaustive and did not include a formal quality appraisal.

Recommendations

- A more detailed realist analysis (which analyses causal pathways) of the studies identified in the reviews would be useful to identify *how* interventions reduce frequent attendance and which elements are the most helpful for which population/patient subgroups. This could help explain why the findings of the evidence review are mixed, and how different elements of interventions (such as adopting person-centred approaches, or working with other

agencies) function to reduce frequent attendance in some cases. Findings from a realist review could be used to inform organisations about how to best design interventions.

- Further research could be conducted into frequent attenders in areas other than A&E, such as primary care settings.

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