Northumbria Research Link

ORIGINAL ARTICLE

Health and Social Care in the community

WILEY

Exploring the potential for social prescribing in pre-hospital emergency and urgent care: A qualitative study

Jason Scott[1] | Gayle Fidler[2] | Daniel Monk[1] | Darren Flynn[3] | Emily Heavey[4]

[1]Faculty of Health and Life Sciences, Northumbria University, Newcastle upon Tyne, UK

[2]North East Ambulance Service NHS Foundation Trust, Newcastle upon Tyne, UK

[3]School of Health and Life Sciences, Teesside University, Middlesbrough, UK

[4]School of Human and Health Sciences, University of Huddersfield, Huddersfield, UK

Correspondence
Dr Jason Scott, C115, Coach Lane Campus West, Northumbria University, Newcastle upon Tyne, NE7 7XA, United Kingdom.
Email: jason.scott@northumbria.ac.uk

Abstract

There is a sustained increase in demand for emergency and urgent care services in England. The NHS Long Term Plan aims to reduce the burden on emergency hospital services through changing how pre-hospital care operates, including increased delivery of urgent care. Given the recognised potential of social prescribing to address wider determinants of health and reduce costs in other settings, this study aimed to understand the role that social prescribing can play in pre-hospital emergency and urgent care from the perspectives of staff. Semi-structured interviews ($n = 15$) and a focus group ($n = 3$) were conducted with clinical staff ($n = 14$) and non-clinical health advisors ($n = 4$) from an English Ambulance Service covering emergency (999) and non-emergency (111) calls. Data were analysed using a pre-defined framework: awareness of social prescribing; potential cohorts suitable for social prescribing; and determinants of social prescribing. Awareness and knowledge of social prescribing was limited, though when social prescribing was explained to participants they almost universally recognised its benefits for their role. Social prescribing was considered to be most beneficial to those calling for reasons relating to mental health, loneliness or social isolation, in particular older people and frequent users of 999 and 111 services. Determinants of social prescribing were identified across the micro (patient and staff acceptability of social prescribing), meso (triage and referral pathways) and macro (commissioning and funding) levels of analysis. This is the first empirical study to explore social prescribing in pre-hospital emergency and urgent care services, which suggests that it has potential to improve quality of care at the point of people accessing these services. There is a pressing need to address the micro, macro and meso level determinants identified within this study, in order to support staff within pre-hospital emergency and urgent care services to socially prescribe.

KEYWORDS
emergency medical services, mental health, social isolation and loneliness, social prescribing, urgent care

1 | INTRODUCTION

There has been a sustained increase in demand for emergency (999) and urgent care (111) telephone services in England, culminating in a recent increase in 999 calls of 5.9% between 2018/19 and 2019/20 (NHS England, 2020b), and an increase of 15.2% in 111 calls between the same time periods (NHS England, 2020c). These mirror increased pressure on the wider health system, including emergency departments (Ham, 2015) and primary care (The King's Fund, 2016), access to which is interlinked with emergency department usage (Cowling et al., 2013). The Covid-19 pandemic has recently altered how people access health services, specifically with increased NHS111 usage (Flynn et al., 2020), though it is possible that these changes are temporary.

In response to increasing demand for emergency and urgent care, The NHS Long Term Plan (LTP) (National Health Service, 2019) was published in January 2019, setting out how new service models will be introduced in England to give patients 'more options, better support, and properly joined-up care at the right time in the optimal setting' (p.6). A key component of the LTP is to reduce the burden on emergency hospital services through changing the way that pre-hospital care operates. Specifically, section 1.25 of the LTP discusses how a Clinical Assessment Service that incorporates NHS111 and ambulance dispatch 'will provide specialist advice, treatment and referral from a wide array of healthcare professionals,' (p.19) in conjunction with out-of-hours primary care services.

The LTP represents a continued movement towards the delivery of urgent care within the urgent and emergency pre-hospital care setting; as part of this move, ambulance services are increasingly required to manage patients with 'primary care sensitive' problems (Booker et al., 2015) and to work more closely with urgent care services (Booker et al., 2013), including in some services co-delivering of emergency (999) and urgent (111) telephone services. Examples include ambulance services delivering clinical case management for frequent callers (Edwards et al., 2015; Scott, 2015), and calls for ambulance services to facilitate community interventions for patients with mental health problems (Roggenkamp et al., 2018); mental health problems are reported to comprise 11% of all calls to emergency ambulance services (Duncan et al., 2019). Some patients, including those with primary care sensitive problems, are deemed to be using services for clinically unnecessary reasons (Dejean et al., 2016), though a recent review by O'Cathain et al., (2020) identified there are numerous, rational reasons beyond clinical necessity for why patients may use these services. These include patients' need for a rapid response, for specific outcomes not obtained through other means, and for circumnavigation of systems seen as more complex. To address the aspirations of the LTP, services may therefore need to be reconfigured or alternative pathways given to patients.

Social prescribing is one potential alternative pathway, whereby patients are referred to community, non-clinical services to address their holistic needs and encourage them to take greater control of their own health and healthcare. Services include activities such as volunteering, arts activities, group learning, gardening and befriending services (The King's Fund, 2017). Husk et al., (2020) describe numerous different models of social prescribing in primary care, which include signposting patients to services without a 'prescription', direct referral from primary care, and use of an intermediary link worker. It is this latter approach which constitutes the majority of research to date (Bickerdike et al., 2017). There has been increased focus on the use of social prescribing in primary care for patients with complex needs, including those who frequently use primary care services and those with mental health problems (Brandling & House, 2009). However, evidence is mixed on whether social prescribing can reduce utilisation or workload in primary care (Carnes et al., 2017; Loftus et al., 2017; Woodall et al., 2018).

However, the evidence base for social prescribing predominantly comes from primary care (Drinkwater et al., 2019), and there is currently no published evidence on the use of social prescribing within pre-hospital emergency or urgent care services. For social prescribing to be successful in this setting, it is necessary to identify suitable patient groups and their relevant needs, and potential barriers and challenges to social prescribing within ambulance services. This study aims to develop a better understanding of the role that social prescribing can play in pre-hospital emergency and urgent care services, in order to deliver care to relevant patient cohorts. To achieve this aim, the following objectives were formulated:

- Determine awareness of social prescribing among relevant clinicians within an English ambulance service
- Identify potential patient cohorts for development of a social prescribing intervention to meet their holistic needs
- Explore potential barriers and enablers to use of social prescribing within the pre-hospital care setting

What is known about this topic:

- There is a sustained increase in demand for urgent and emergency care in England.
- Social prescribing is an alternative model of care for patients with multiple complex needs
- Social prescribing traditionally occurs within primary care, and its suitability for the pre-hospital urgent and emergency care setting is unknown

What this paper adds:

- Social prescribing appears to be a suitable model of care for some patients in the pre-hospital urgent and emergency care setting
- Micro, meso and macro level determinants need to be addressed before social prescribing can be implemented

2 | METHODS

This qualitative study was designed using the Consolidated Criteria for Reporting Qualitative Research (COREQ) and is reported using the COREQ checklist (Tong et al., 2007). Ethics approval was granted by the Health Research Authority (ref: 19/HRA/4311) with local research governance approval granted by North East Ambulance Service NHS Foundation Trust (ref: NEAS/2019/264961).

2.1 | Setting

The study was conducted within a single English ambulance service that delivers both emergency (999) care and urgent care (111) telephone services across both urban and rural areas. Emergency ambulance services in England provide emergency care following a 'hear and treat', 'hear, see and treat' or 'hear, see and convey' model of care (NHS England, 2015) that is free at the point of use, with patients usually accessing the service by calling 999. The NHS111 urgent care helpline is also provided free at the point of use, though this is not always delivered by ambulance services.

2.2 | Sample and recruitment

Participants were purposely sampled based on their profession and role within the ambulance service, representing a range of clinical (general practice, paramedicine, nursing) and non-clinical (health advisor) roles. Participants were approached in the first instance by GF or DM via an invitation letter and participant information sheet. They were then given a minimum of 24 hr to consider whether they would like to participate. Nobody declined to participate. From the outset, it was predetermined that one focus group would be conducted with frontline paramedics alongside the semi-structured interviews with staff based at the ambulance service's headquarters. This was a pragmatic decision due to the availability of participants, with a focus group deemed to be more convenient to the frontline paramedics and interviews deemed to be more convenient for all other participants. Informed written consent was obtained from all participants.

2.3 | Data collection

Semi-structured interviews (30 min duration) were conducted in-person or by telephone by JS, and the focus group was co-facilitated by JS and DM. A topic guide was developed and piloted among the research team for use in interviews and the focus group. Topics included the participant's expertise, the nature of their day-to-day work, their experience and perspectives on managing complex patients, their understanding of social prescribing, their perspectives on the potential role and value of social prescribing for ambulance service patients, and their views on potential referral pathways for social prescribing from within an ambulance service. Interviews were recorded using a digital voice recorder and then transcribed verbatim. Data collection stopped once saturation had been reached.

2.4 | Data analysis

Data from interviews and the focus group were combined and analysed by JS using an a priori framework based on the study's objectives: awareness of social prescribing, potential cohorts suitable for social prescribing, and determinants of social prescribing (mapped using the analytical heuristic of micro, meso and macro system levels). This approach to analysis was based on framework analysis (Gale et al., 2013), and consisted of developing the analytical framework, familiarisation with the data through JS conducting data collection and reading transcripts, charting the data into the framework, and interpreting the data, with NVivo 12 (QSR International) used to support the analysis process. Beyond the initial a priori framework, sub-codes were generated inductively. DF, EH and DM then each read three separate transcripts and discussed with JS and GF until agreement was reached on the final interpretations.

3 | FINDINGS

Eighteen staff members participated in the study, including paramedics (n = 8), nurses (n = 5), non-clinical health advisors (n = 4) and a general practitioner (Table 1). Three paramedics, who were training to be advanced care paramedics, had no experience of working in the Integrated Urgent Care Clinical Assessment Service (IUC CAS). The other participants all had experience of either working in the IUC CAS or, in the case of non-clinical health advisors, experience of taking 999 and 111 calls from patients. Nine (50%) participants were female; the sex of individual participants is not reported to protect anonymity.

Three major themes were represented in the findings: (a) participants' awareness of social prescribing, (b) potential cohorts suitable for social prescribing and (c) determinants to social prescribing. Figure 1 graphically conveys the concepts within the three major themes and associated sub-themes.

3.1 | Awareness

Participants had varying levels of awareness of the precise nature of social prescribing. Some were unfamiliar with the term; for example, one participant stated, 'to be honest, I'd not really heard of it being called social prescribing before I knew about this research project' (P02). Others reported familiarity with the concept of social prescribing, though this was almost always tempered with uncertainty as to its precise nature, as highlighted by P03;

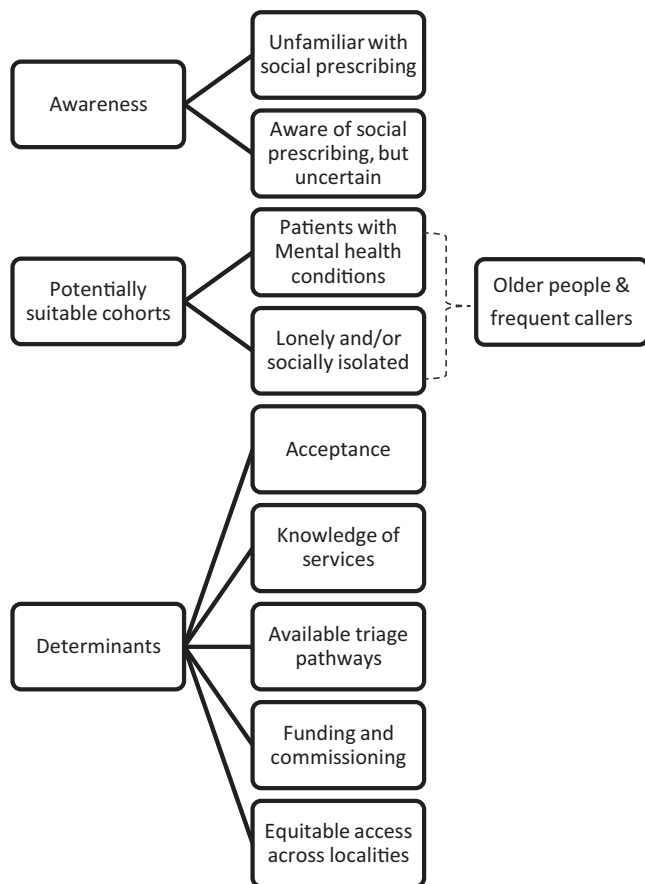| Participant number	Job title	Clinical background	Data collection method
01	Senior clinical advisor	Nurse	Interview
02	Senior clinical advisor	Nurse	Interview
03	Clinical section manager	Nurse	Interview
04	Clinical section manager	Nurse	Interview
05	Senior clinical advisor	Paramedic	Focus Group
06	Senior clinical advisor	Paramedic	Focus Group
07	Clinical service manager	Paramedic	Focus Group
08	General practitioner	General Practitioner	Interview
09	Paramedic	Paramedic	Interview
10	Paramedic	Paramedic	Interview
11	Paramedic	Paramedic	Interview
12	Senior health advisor	None	Interview
13	Senior health advisor	None	Interview
14	Health advisor	None	Interview
15	Health advisor	None	Interview
16	Senior clinical advisor	Paramedic	Interview
17	Senior clinical advisor	Nurse	Interview
18	Frequent caller officer	Paramedic	Interview

FIGURE 1 Final thematic findings based on the three primary themes of awareness, potentially suitable cohorts, and determinants of social prescribing

"Social prescribing; I believe that it's all about kind of, like, looking at alternative services for people. So, day centres… Like, community-based activities. That's kind of what I… I want to say, like, mindfulness and that, but I don't know whether that really is. I don't know." (P03)

3.2 | Potential cohorts suitable for social prescribing

Participants were almost unanimous about the patient cohorts that would be suitable for social prescribing, with two key patient concerns identified. These were callers with mental health issues or conditions, and those who were lonely or socially isolated. In addition, some participants highlighted two patient categories within these cohorts who were likely to benefit from social prescribing: older people and frequent callers.

Discussion of callers with mental health issues largely centred on patients with suicidal thoughts, anxieties or personality disorders. P01 gave an example of a person who was suicidal that would be suitable for social prescribing, particularly as he would not meet the criteria for a mental health crisis referral;

"I had someone a few weeks ago who had rung in and they came on the stack as suicidal, and I spoke to him and he was, you know, quite- well, I spoke to him for about 40 minutes, and by the end of it he was laughing.[…] The crisis team wouldn't touch that at that point anyway. […] So, I think actually depending on the caller, you know, he rang up and I think if he

had something else in his life, or you know, if he had something where he could feel that actually 'I've got a programme here where I can be part of...'" (P01)

Patients with adverse social conditions, particularly those who are lonely or socially isolated, were often identified as being a relevant cohort who would benefit from social prescribing;

"You get your older generation and the family move away and they're living on their own, they get very isolated and you have too long to sit at home and think and these people get lonely. I think stuff like social prescribing to get them out, to get them mobile, to get them socialising is just fabulous in whichever way it is, or somebody just to call on them if there are any problems" (P18)

Social and mental health conditions were not considered mutually exclusive. One participant recognised this, and mentioned that social prescribing has the potential to reduce the demand placed on emergency services;

"they're often lonely, isolated, live alone with, as I say, anxiety and mental health issues. And that group of people may benefit from having something else to think about, someone distracting them. So if you can refer them to some sort of day centre or exercise on prescription or a hobby or something, it may reduce their use of healthcare services. It may not do, but it may do." (P04)

Frequent callers, sometimes known as high-intensity users, were identified as a specific category of caller who would benefit from social prescribing. This group was defined by their high use of the service (defined in the UK as five or more calls in a month or 12 or more calls in 3 months) and varied greatly in their presentation; as one senior health advisor explained, they 'fall into a few different categories' (P12). Although frequent callers were defined by service use rather than call focus, the various examples given generally centred around patients with mental health and/or adverse social conditions;

Interviewer: "do you think that social prescribing would help any of those patients within this setting?"

Participant: "Yes. I can think of one frequent caller who- she just needs somebody. She just needs somebody to talk to. [...] Even thinking for- there's somebody who rings quite regularly and I feel that if they maybe went to a day centre, that might prevent some of that anxiety that feeds the need to ring constantly." (P03)

Older people were also identified based on a characteristic (age) rather than their call focus. P11 demonstrates this when considering

older patients who are not always immediately recognised as having social problems;

"They usually fall under the cohort of elderly patients or your frequent callers or your mental health brackets. That tends to be the three main cohorts of people I think that we would deal with that would fall in that bracket, but there is some resistance sometimes from two of those groups; your elderly where they don't know what to do, generally they ring up because they're unwell and you get an unwell complaint before you realise that actually they're ringing quite a few times and it's the same thing and is there anything else going on? We wouldn't necessarily probe for it initially because we're very medically focussed in our role. It's not until you think, 'Oh, there's a bit more history there... Actually, this is happening all the time so is there anything else going on? Have you got family? Have you got anybody else? Have you got any friends? Do you go to any groups? Do you go to any clubs?' It's only once you've sort of dealt with them a few times that you start picking up on maybe there is something else." (P11)

3.3 | Determinants of social prescribing

Several determinants were identified for social prescribing to be implemented into the pre-hospital care setting, which have been mapped onto the micro, meso and macro system levels (Figure 2). Larger supporting quotations for the determinants are provided in Table 2.

3.4 | Micro level: Acceptability of social prescribing

At the micro level, participants discussed patient and staff acceptability of social prescribing. P04 succinctly summarises the former by stating that, 'the challenge is whether the patient accepts it'. To accept social prescribing, participants felt that patients must understand what it entails and how it might be useful. Regarding the former, one participant, P01, emphasised the need to use accessible language to describe social prescribing: 'You know, because if you say social prescribing, people will be like, "What are you talking-?" You know, it's kind of the terminology'. Regarding the latter, P26 (Table 2) described the importance of conveying the value of social prescribing to the individual, addressing their level of motivation, and providing practical support for them to engage in social prescribing.

Notably, the very groups identified as having the potential to benefit from social prescribing were sometimes identified as being potentially resistant to it. P26 suggested the potential for such non-acceptance among older people, while another participant made a similar suggestion about those struggling with mental health
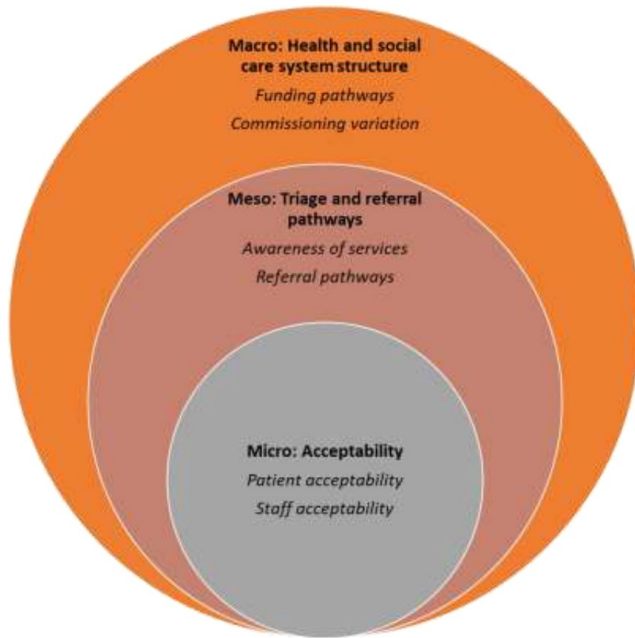
FIGURE 2 Micro, Meso and Macro framework applied to determinants of social prescribing in pre-hospital care

problems or social isolation. Asked whether they saw any barriers to social prescribing, P25 stated, 'not from our point of view, but I think from a patient's point of view', going on to explain, 'where people have been isolated for so long, although I think what they need is something like this, they're frightened and nervous about doing it. I think that would probably be one of the big barriers, definitely.' Such barriers were not seen as insurmountable, but as something to be recognised in order to ensure that social prescribing was presented in an appropriate manner. P25 suggested that this would include introducing social prescribing slowly and carefully, and potentially in a relatively informal manner. Another participant (P12; Table 2) also highlighted how social prescribing is presented to patients as having the potential to influence acceptability.

It was not always clear to participants whether patients adhered to social prescribing. P11 described how over a short period of time, they had been signposting to a charity those patients who were calling due to loneliness or anxiety. The participant acknowledged that they were unaware whether patients had contacted the charity. P04 (Table 2) also suggested the need for services to monitor uptake and acceptability.

Staff acceptability of social prescribing was another determinant at the micro level. This related to the appropriateness of social prescribing for defined cohorts and who should be socially prescribing within the pre-hospital care setting. Almost all participants recognised the potential benefit of social prescribing to patients, and this view was consistent when discussing the previously described cohorts. It was also recognised that '[social prescribing] wouldn't be suitable for everybody, [...] but I think that there is absolutely a certain need for it in certain cases' (P18). The issue of who should be social prescribing was raised by P02, who felt that the acute nature

of the care provided by the ambulance service meant that social prescribing would take up too much of frontline staff time (P02, Table 2).

There is some crossover between this aspect of staff acceptability and the meso level determinants.

3.5 | Meso level: Triage and referral pathways

At the meso level, the triage and referral pathways are key determinants of social prescribing in prehospital care. These play an important role in supporting staff to identify relevant services to which patients can be referred. For instance, participants described how, because the ambulance service covers a wide geographical area, they currently either rely on local knowledge of services that are available, or the NHS Directory of Services (DoS); a computerised system that contains information about commissioned healthcare services. This system can become a barrier to social prescribing when information is incomplete or out-of-date (P03, Table 2).

Relatedly, P03 also raised the issue of time constraints as a barrier to social prescribing. They stated that, if a potentially useful service was not available on DoS, they would likely refer a patient to the GP or social care services rather than attempt social prescribing, 'because ultimately we haven't got time to be searching for different services.'

For prehospital care staff to prescribe non-clinical services, it was recognised that the NHS DoS, or a similar bespoke system, would need to include services that are currently not listed on the NHS DoS as referral sources for social prescribing (P01, Table 2).

Triage and referral decision-making are often underpinned by computer systems with algorithms based on guidelines, and this was believed to limit clinical autonomy. These existing systems were felt to be overly reductionist for patients with complex needs, as they are designed around single causes rather than the interplay between multiple medical and non-medical causes. This issue was particularly pertinent for the patient cohorts deemed to be suitable for social prescribing, and thus raised the challenge of where in the clinical pathway the referrals to social prescribing services should take place; P11 (Table 2) recognised a distinction between emergency (999) and urgent (111) calls.

3.6 | Macro level: Health- and social care infrastructure

Finally, health- and social care infrastructure was a determinant of social prescribing at a macro level. Participants recognised that variation in both practice and availability of healthcare services already exists across the regions that the ambulance service covers, as described by P09 (Table 2). This potential for variation was continued in relation to social prescribing, as discussed by a paramedic in the focus group who commented, 'You'd probably end up with [social prescribing] in certain areas, there would be tonnes of it available; other areas... [shrug of shoulders]' (P09).

TABLE 2 Supporting quotations for the determinants of social prescribing

Level	Theme(s)	Supporting data
Micro	Patient and staff acceptability	'You would have to sell [social prescribing], yes, because I think a lot of people have been in that predicament for a long time, and I think older people, they get stuck in a routine quite quickly, and they get down quite quickly. So, I think that's very easy for us to say, "Oh, come on, you can do this," but I think it's a lot for them to do, but it would have to be pushed upon them a little bit more, rather than, "Would you like to do this," the first response would be no, a lot of the time, I'm sure, but saying that, those same people would love it, once they were pushed along, you know?' (P26)
		'I think [whether patients accept it] will all depend on the confidence it's delivered with from the call handler.' (P12)
		'You need some feedback to say, "Is it worth doing?" Because if you refer these people, you're doing 20 referrals in a month and, actually, none of them ever go, you think, "Oh," or they go but it doesn't work, or, equally, they go and they find it very useful and you get some feedback saying, yes, of the 20 people and 10 of them have found it very useful. So you need some feedback.' (P04)
		'Well I think again you are probably getting a proportion of the population who are experiencing social isolation and not coping. What proportion of the population that is I've got no idea. I guess that's what would be opened up if 111 became the port of call for [social prescribing]'. (P08)
		'Not in an acute care setting. [Social prescribing] is not appropriate. The time resources that that would take up would be horrendous.[...] We just don't want the massive demand on ambulance services because we do 12 hr shifts, and the calls are relentless.' (P02)
Meso	Triage and referral pathways	'Like, knowing what services are available which is a massive thing for us, because services change all of the time. And sometimes there's loads of services that are available, but we don't know anything about them. So we can't refer in. Sometimes they've got exclusion criteria on who can refer in, and when they find out that you've just done telephone triage, sometimes services don't want to accept.' (P03)
		'I know there is a Directory of Services and stuff, but I think if you don't know what the kind of services are and you don't know what you're looking for, I suppose having that kind of knowledge about what it is and where it is. So, yes, I think it would be handy having it there, like a service synopsis of what you're looking for. And I suppose, definitely- certainly for different areas, because I mean in certain areas you might only know your own area or the area you're working to' (P01)
		'That is more about their safety, it seems more as if it's a safety aspect on 999, whereas on 111, their expectation is very much unknown. They haven't rung for an ambulance, they haven't rung with that preconception and sometimes they ring just for a GP appointment, but on occasions they will go, "I've rung because I've got nowhere else to ring and I don't know who to contact." Do you know what I mean, they've got to a point where they think, "What do I do?" and then it's trying to think outside of the box.' (P11)
Macro	Funding pathways and commissioning variation	'[One locality] offers a lot of additional services, so they have your urgent care teams, your rapid response teams, they will go out, they're advanced practitioners or nurse practitioners, they can do chest assessments, ECGs... chronic patients, but they'll go and do an assessment. You go to another area and all you've got access to is a district nurse and the district nurse won't go out and assess the patient. They're quite happy to dress a wound, but they're not happy to do any formal assessment. They will provide a treatment, but they'll not assess.' (P09)
		'We are [a small ambulance Trust]. We have probably got the least amount of CCGs to deal with, so in some respects it's way easier in our patch to set something like that up, whereas if you get the likes of your North West, where they've got multiples of CCGs to have to deal with, 30 plus, it gets a bit more complicated for them really.' (P08)
		'Funding for these services to continue and finding them out there to prescribe for people, I think that would be a barrier'. (P18)
		'And then, yes, the funding. So does the patient need to go via social care, do they need a referral that way? Does the funding come from the GP, and if so, is the GP happy for us to refer, to do it that way?' (P03)

The sentiment among participants was that variations in care would be exacerbated in the context of social prescribing where providers range in size, and 'Each Clinical Commissioning Group has their own pet project' (P03). This ultimately stems from how health-care services are commissioned across a region, which was recognised as being a problem for all ambulance services (P08, Table 2). Linked to the commissioning of services, participants also raised questions about the source of funding for social prescribing services, as a determinant of social prescribing (P18, Table 2).

P03 raised the more specific question about different budgets, alluding to the need for agreement across services for how prescribing decisions would be made. This quotation (Table 2) also highlights how the macro level creates the specific context for the meso level determinants, specifically the referral pathways for social prescribing.

4 | DISCUSSION

This is the first study to provide insights into the potential value of social prescribing within the pre-hospital emergency and urgent care setting from the perspective of clinical and non-clinical staff. Participants' awareness and knowledge of social prescribing was limited, though when social prescribing was explained, they

almost unanimously recognised the potential benefits for patients. Social prescribing was considered to be most beneficial to patients presenting with mental health conditions and adverse social circumstances, particularly loneliness and social isolation, with older people and frequent callers being identified as additional suitable sub-cohorts of these presenting conditions. These cohorts represent high-need, high-cost groups that are often also seen in primary care (Dreyer et al., 2019). Loneliness is also common in primary care patients, and is associated with adverse health consequences including poorer health status and greater healthcare utilisation (Mullen et al., 2019). In response to the NHS Long Term Plan (National Health Service, 2019) in England, the expanded scope of pre-hospital emergency and urgent care services provides additional opportunities for managing patients with complex conditions in the community. For instance, Scott et al., (2014) and more recently Mahmuda et al., (2020) identified that various combinations of physical health, mental health and social conditions lead to frequent use of emergency medical services. Frequent users of emergency medical systems can sometimes be difficult to identify (Maruster et al., 2020), and interventions have demonstrated promise, but still lack robust data on effectiveness requiring further evaluation (see e.g. Agarwal et al., (2019) and Snooks et al., (2019)). Social prescribing therefore has the potential to be an alternative or supplementary approach to support patients within the pre-hospital emergency and urgent care setting and to reduce the burden on emergency departments and primary care.

Our study also identified several determinants to social prescribing at the micro, meso and macro-levels. At the micro-level, social prescribing must be acceptable to patients and to staff. Acceptability to patients was perceived to be hinged on their understanding the concept and the value of social prescribing. In primary care, Bickerdike et al., (2017) identified that patient acceptability, as determined by attendance at initial appointment with a link worker, ranged from 50% to 79%. While it was outwith the scope of this study to examine whether patients would accept social prescribing, there is a clear requirement for future research to explore patient acceptability to social prescribing within the pre-hospital setting. It was also suggested that cohorts who stood to benefit from social prescribing may be resistant to it, necessitating an approach which emphasised social prescribing's value while being sensitive to the patient's potential reservations. Wildman et al., (2019) identified that patients require ongoing support rather than social prescribing being a single, one-off event, and it is possible that the same might be required to help overcome reservations in the pre-hospital care setting.

Staff generally saw the potential benefit of social prescribing, although they acknowledged that it was more appropriate for some patients than others and that it would not always be appropriate in an acute setting. At the meso level, triage and referral pathways were key determinants. Participants stated the need for health advisors to have up-to-date information (e.g. in the DoS) about available services which could be socially prescribed to enable efficient and appropriate social prescribing. There was also uncertainty

over where in the clinical pathway social prescribing should occur. In primary care, the link worker model is most studied (Bickerdike et al., 2017), but direct referral by a general practitioner is also an option (Husk et al., 2020). The nature of pre-hospital care introduces many more potential options which require further consideration, such as direct referral from multiple different contact points (e.g. on-scene paramedic, call handler, Clinical Assessment Service), or referral to a link worker either within the service or in primary care. The findings of this study provided no clear indication on how to optimally embed social prescribing in pre-hospital care, although some suggestions were made. Options include linking with existing social prescribing hubs in primary care, or development of a bespoke pre-hospital care social prescribing link worker program. The latter could be part of a frequent caller service and our findings indicate a pressing need for alternative funding models that cross services, such as collaborative funding (The Health Foundation, 2020). Indeed, Public Health England (2018) has provided guidance on embedding social prescribing into practice, though this guidance does not fully address the determinants of social prescribing in pre-hospital care identified in this study, particularly across the meso and macro levels.

Finally, at the macro level, participants noted that the availability, funding and commissioning of services in different localities would affect the potential for successful social prescribing. This is similar to a previous study of the required context for social prescribing in primary care by Bertotti et al., (2018) who identified that long-term funding for services was a challenge. Specifically, they reported that there was an assumption that third sector organisations—often providers of prescribed services—would have spare capacity for additional referrals, despite government funding cuts to such services.

Any future social prescribing interventions in this setting will need to be evaluated, with outcomes analysed using a standardised approach such as the NHS England (2020a) common outcomes framework for social prescribing. This framework attempts to address the disparate approaches used to evaluate social prescribing interventions that have largely made outcomes incomparable (Husk et al., 2019). The common outcomes framework specifically covers three key areas: impact on the person, impact on community groups and impact on the health and care system. It will also be necessary to investigate adherence to social prescribing interventions and compared against similar triage decisions. For instance, it is reported by NHS Digital (2020) that not all patients follow the advice given by NHS111, with only 71.9% of patients in 2018 attending the emergency department upon recommendation. Husk et al., (2020) summarise three organising principles for social prescribing; enrolment, engagement and adherence, to better understand the success of a social prescribing pathway.

The strengths of our study include adherence to COREQ (Tong et al., 2007) to undertake an in-depth exploration of the perspectives and views on social prescribing in pre-hospital emergency or urgent care setting with participants drawn from a range of clinical and operational roles. This multiple-perspective approach, and application of the levels of analysis, also enabled a holistic understanding

of barriers and enablers to implementation of social prescribing in pre-hospital/urgent care. A limitation of our study was that patients were not involved as participants. Furthermore, all staff worked within one ambulance service. As a result, our findings may not necessarily be transferrable to all services in England, particularly those with substantially different patient populations or services. Due to only one GP included in the sample, the views and experiences of this professional group are likely to be under-represented in our findings.

Further research is needed to understand patient views and preferences on types of social prescribing activities that would meet their needs within the urgent and emergency care setting, including how best to engage patients in such activities, and critically ensuring the organisations providing socially prescribed activities are funded sustainably. Further research will also need to examine whether social prescribing in this setting can reduced service usage and improve patient-centred outcomes and experience. The evidence for social prescribing to yield off-set costs associated with reduced healthcare utilisation and cost-effectiveness is currently limited in primary care, (Bickerdike et al., 2017) and patient experience—one of three components of healthcare quality—is critically important in the context of social prescribing. There is a wealth of evidence from the literature to suggest that patients are satisfied with the support received, and that engagement in social prescribing improves patient wellbeing (Bickerdike et al., 2017) but this will need to be examined specifically in the pre-hospital care setting.

5 | CONCLUSIONS

This is the first empirical study to explore social prescribing in pre-hospital emergency and urgent care services. Findings suggest that social prescribing has potential to improve quality of care at the point of accessing these services, particularly for patients calling for mental health and/or social conditions such as isolation and loneliness. There is a pressing need to address the micro, macro and meso level determinants identified within this study in order to support staff within pre-hospital emergency and urgent care services to socially prescribe.

ACKNOWLEDGEMENTS
We would like to thank all study participants for giving their time to take part in the study, and for speaking candidly about the topic.

CONFLICTS OF INTEREST
All authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT
Authors do not have permission from participants to share recordings or anonymised transcripts. The corresponding author (JS) would be willing to interrogate the data on behalf of others upon reasonable request up until 30 September 2027, after which the data will be deleted. Ethical approval will be required for re-use of data.

ORCID
Jason Scott (iD) https://orcid.org/0000-0001-7031-2171

TWITTER
Jason Scott @drjasonscott

REFERENCES
Agarwal, G., Pirrie, M., McLeod, B., Angeles, R., Tavares, W., Marzanek, F., & Thabane, L. (2019). Rationale and methods of an evaluation of the effectiveness of the community paramedicine at home (CP@ home) program for frequent users of emergency medical services in multiple Ontario regions: A study protocol for a randomized controlled trial. *Trials*, 20(1), 1–11. https://doi.org/10.1186/s13063-018-3107-4

Bertotti, M., Frostick, C., Hutt, P., Sohanpal, R., & Carnes, D. (2018). A realist evaluation of social prescribing: An exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. *Primary Health Care Research & Development*, 19(3), 232–245. https://doi.org/10.1017/S1463423617000706

Bickerdike, L., Booth, A., Wilson, P. M., Farley, K., & Wright, K. (2017). Social prescribing: Less rhetoric and more reality. A systematic review of the evidence. *British Medical Journal Open*, 7(4):e013384.

Booker, M. J., Shaw, A. R. G., & Purdy, S. (2015). Why do patients with 'primary care sensitive' problems access ambulance services? A systematic mapping review of the literature. *British Medical Journal Open*, 5(5), e007726. https://doi.org/10.1136/bmjopen-2015-007726

Booker, M. J., Simmonds, R. L., & Purdy, S. (2013). Patients who call emergency ambulances for primary care problems: A qualitative study of the decision-making process. *Emergency Medicine Journal*, 31(6), 448–452. https://doi.org/10.1136/emermed-2012-202124

Brandling, J., & House, W. (2009). Social prescribing in general practice: Adding meaning to medicine. *British Journal of General Practice*, 59(563), 454–456. https://doi.org/10.3399/bjgp09X421085

Carnes, D., Sohanpal, R., Frostick, C., Hull, S., Mathur, R., Netuveli, G., Tong, J., Hutt, P., & Bertotti, M. (2017). The impact of a social prescribing service on patients in primary care: A mixed methods evaluation. *BMC Health Services Research*, 17(1), 835. https://doi.org/10.1186/s12913-017-2778-y

Cowling, T. E., Cecil, E. V., Soljak, M. A., Lee, J. T., Millett, C., Majeed, A., Wachter, R. M., & Harris, M. J. (2013). Access to primary care and visits to emergency departments in England: A Cross-Sectional. *Population-Based Study. PLOS ONE*, 8(6), e66699. https://doi.org/10.1371/journal.pone.0066699

Dejean, D., Giacomini, M., Welsford, M., Schwartz, L., & Decicca, P. (2016). Inappropriate ambulance use: A qualitative study of paramedics' views. *Healthcare Policy*, 11(3), 67. https://doi.org/10.12927/hcpol.2016.24535

Digital, N. H. S. (2020). Emergency Department (ED) attendance following Pathways NHS111 calls. Retrieved 1st September 2020 from https://digital.nhs.uk/data-and-information/publications/statistical/emergency-department-ed-attendance-following-pathways-nhs111-calls/england-2018

Dreyer, K., Parry, W., Jayatunga, W., & Deeny, S. (2019). A descriptive analysis of health care use by high-cost, high-need patients in England. Health Foundation Working Paper, number 7, Retrieved 30th November 2020 from https://www.health.org.uk/sites/default/files/upload/publications/2019/Health-care-use-by-high-cost-high-need-patients-WP07.pdf

Drinkwater, C., Wildman, J., & Moffatt, S. (2019). Social prescribing. *BMJ*, 364, l1285.–https://doi.org/10.1136/bmj.l1285

Duncan, E. A. S., Best, C., Dougall, N., Skar, S., Evans, J., Corfield, A. R., Fitzpatrick, D., Goldie, I., Maxwell, M., Snooks, H., Stark, C., White, C., & Wojcik, W. (2019). Epidemiology of emergency ambulance service calls

related to mental health problems and self harm: A national record linkage study. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 27(1), 1–8. https://doi.org/10.1186/s13049-019-0611-9

Edwards, M. J., Bassett, G., Sinden, L., & Fothergill, R. T. (2015). Frequent callers to the ambulance service: Patient profiling and impact of case management on patient utilisation of the ambulance service. *Emergency Medicine Journal*, 32(5), 392–396. https://doi.org/10.1136/emermed-2013-203496

Flynn, D., Moloney, E., Bhattarai, N., Scott, J., Breckons, M., Avery, L., & Moy, N. (2020). COVID-19 pandemic in the United Kingdom. *Health Policy and Technology*, https://doi.org/10.1016/j.hlpt.2020.08.003

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multidisciplinary health research. *BMC Medical Research Methodology*, 13, 117. https://doi.org/10.1186/1471-2288-13-117

Ham, C. (2015). Emergency department pressures need to be tackled through integrated urgent and emergency care. *BMJ : British Medical Journal*, 350, h322. https://doi.org/10.1136/bmj.h322

Husk, K., Blockley, K., Lovell, R., Bethel, A., Lang, I., Byng, R., & Garside, R. (2020). What approaches to social prescribing work, for whom, and in what circumstances? A realist review. *Health & Social Care in the Community*, 28(2), 309–324. https://doi.org/10.1111/hsc.12839

Husk, K., Elston, J., Gradinger, F., Callaghan, L., & Asthana, S. (2019). Social prescribing: Where is the evidence? *British Journal of General Practice*, 69(678), 6. https://doi.org/10.3399/bjgp19X700325

Loftus, A. M., McCauley, F., & McCarron, M. O. (2017). Impact of social prescribing on general practice workload and polypharmacy. *Public Health*, 148, 96–101. https://doi.org/10.1016/j.puhe.2017.03.010

Mahmuda, S., Wade-Vallance, A., Stosic, A., Guenter, D., Howard, M., Agarwal, G., McLeod, B., & Angeles, R. (2020). Understanding why frequent users of EMS Call 9-1-1: A grounded theory study. *Health Promotion Practice*, 21(3), 440–447. https://doi.org/10.1177/1524839918799504

Maruster, L., van der Zee, D.-J., Hatenboer, J., & Buskens, E. (2020). Tracing frequent users of regional care services using emergency medical services data: A networked approach. *British Medical Journal Open*, 10(5), e036139. https://doi.org/10.1136/bmjopen-2019-036139

Mullen, R. A., Tong, S., Sabo, R. T., Liaw, W. R., Marshall, J., Nease, D. E., & Frey, J. J. (2019). Loneliness in primary care patients: A prevalence study. *The Annals of Family Medicine*, 17(2), 108–115.

National Health Service (2019). The NHS long term plan. Retrieved 15th January 2019 from https://www.longtermplan.nhs.uk/wp-content/uploads/2019/01/nhs-long-term-plan.pdf

NHS England. (2015). Transforming urgent and emergency care services in England. Retrieved 30th November 2020 from https://www.nhs.uk/nhsengland/keogh-review/documents/uecr-ambulance-guidance-fv.pdf

NHS England. (2020). Statistical work areas: NHS 111 minimum data set. Retrieved 1st September 2020 from https://www.england.nhs.uk/statistics/statistical-work-areas/nhs-111-minimum-data-set/

NHS England. (2020). Statistical work areas: Ambulance quality indicators. Retrieved 1st September 2020 from https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/

NHS England. (2020). Social prescribing and community-based support: Summary guide. Retrieved 2nd September 2020 from https://www.england.nhs.uk/wp-content/uploads/2020/06/social-prescribing-summary-guide-updated-june-20.pdf

O'Cathain, A., Connell, J., Long, J., & Coster, J. (2020). 'Clinically unnecessary' use of emergency and urgent care: A realist review of patients'

decision making. *Health Expectations : An International Journal of Public Participation in Health Care and Health Policy*, 23(1), 19–40. https://doi.org/10.1111/hex.12995

Public Health England (2018). Community-centred practice: Applying All Our Health. Retrieved 26th July 2020 from https://www.gov.uk/government/publications/community-centred-practice-applying-all-our-health/community-centred-practice-applying-all-our-health

Roggenkamp, R., Andrew, E., Nehme, Z., Cox, S., & Smith, K. (2018). Descriptive analysis of mental health-related presentations to emergency medical services. *Prehospital Emergency Care*, 22(4), 399–405. https://doi.org/10.1080/10903127.2017.1399181

Scott, J. (2015). Delivering clinical case management for frequent callers to ambulance services. *Emergency Medicine Journal*, 35(5), 342. https://doi.org/10.1136/emermed-2014-204354

Scott, J., Strickland, A. P., Warner, K., & Dawson, P. (2014). Frequent callers to and users of emergency medical systems: A systematic review. *Emergency Medicine Journal*, 31(8), 684–691. https://doi.org/10.1136/emermed-2013-202545

Snooks, H. A., Khanom, A., Cole, R., Edwards, A., Edwards, B. M., Evans, B. A., Foster, T., Fothergill, R. T., Gripper, C. P., Hampton, C., John, A., Petterson, R., Porter, A., Rosser, A., & Scott, J. (2019). What are emergency ambulance services doing to meet the needs of people who call frequently? A national survey of current practice in the United Kingdom. *BMC Emergency Medicine*, 19(1), 82. https://doi.org/10.1186/s12873-019-0297-3

The Health Foundation (2020). New opportunity to improve health care through collaborative communities. Retrieved 27th July 2020 from https://www.health.org.uk/news-and-comment/news/opportunity-improve-health-care-through-collaborative-communities

The King's Fund (2016). *Understanding pressures in general practice*. Retrieved 1st September 2020 from https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Understanding-GP-pressures-Kings-Fund-May-2016.pdf

The King's Fund (2017). *What is social prescribing?* Retrieved 19th February 2019 from https://www.kingsfund.org.uk/publications/social-prescribing

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357. https://doi.org/10.1093/intqhc/mzm042

Wildman, J. M., Moffatt, S., Steer, M., Laing, K., Penn, L., & O'Brien, N. (2019). Service-users' perspectives of link worker social prescribing: A qualitative follow-up study. *BMC Public Health*, 19(1), 98. https://doi.org/10.1186/s12889-018-6349-x

Woodall, J., Trigwell, J., Bunyan, A.-M., Raine, G., Eaton, V., Davis, J., Hancock, L., Cunningham, M., & Wilkinson, S. (2018). Understanding the effectiveness and mechanisms of a social prescribing service: A mixed method analysis. *BMC Health Services Research*, 18(1), 604. https://doi.org/10.1186/s12913-018-3437-7