

## Research Article

# Prescribing Paradigms: Understanding General Practitioner Inclinations Towards Medical and Social Prescribing

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General practitioners (GPs) face complex decisions when choosing between prescribing medication or referring patients to social prescriptions. Increasing awareness of overprescribing and the risks of polypharmacy are a key driver of patient-centred preventative approaches to healthcare. One such approach, increasingly common in the United Kingdom, is social prescribing (SP). GPs have a central role in prescribing medication or referring to a social prescription. Following a thematic analysis of data from interviews with 12 GPs, this study used the concept of mindlines to frame a consideration of their reasoning about the appropriateness of social prescriptions as adjuncts to or alternatives for medical prescriptions. We identified seven considerations that shaped their decision-making process. These factors spanned the patient's socioeconomic circumstances, the severity of their symptoms and their expectations. Additionally, GPs factored in their time constraints, the extent to which medical options had been exhausted, and finally issues related to the SP system itself—specifically, the integration of SP workflows in GP practices and resource constraints. SP is, in theory at least, a part of the healthcare system that offers the possibility of improved health both for people and the environment. Our consideration of the role of the GP in this suggests that the challenges for design and evaluation of SP interventions that result in a reduction in medical prescriptions are considerable.

## 1. Introduction

Prescribing medicine is the most common intervention in healthcare [1]. The number of medicines prescribed in England increased from 852 million in 2008 to more than 1.1 billion in 2018 [2]. Unsurprisingly then, a recent government review has described overprescribing as a 'serious problem in health systems internationally that has grown dramatically over the last 25 years' [3]. Prescriptions of antidepressants nearly doubled from 36 million prescriptions dispensed in 2008 to 70.9 million in 2018 [4]; around 12% of all prescribing relates to mental health issues [5]. Routine use of antidepressants for mild symptoms is not generally recommended although an increase in prescribing for

anxiety [6], systemic and cultural reasons for over-prescribing [3], alongside limited access to alternatives [7] can mean general practitioners (GPs)<sup>1</sup> are more likely to recommend medication over no treatment at all [8].

In terms of the carbon footprint of the NHS, pharmaceuticals rank as the second highest contributing factor overall and the primary contributor within general practice [9]. Between 65% and 90% of the total emissions in primary care can be attributed to prescribed medicines [5]. In addition, through patient excreta and inappropriate medicines, disposal [10] medicines are threatening environmental as well as human health [11]. Helwig et al. [12] and Thornber et al. [11] highlighted the complexity of addressing unwarranted pharmaceutical usage, and to this end, note the

importance of prioritising early, preventative, patient-centred health promotion [13]. Social prescribing (SP) is one such option [14], targeted for expansion in the NHS Long Term Plan [13] and considered as part of the solution to overprescribing [3].

SP refers to the practice of ‘prescribing of nonmedical, community or social activities’ [15]. Typically involving a referrer (often, but not always, a GP), these activities are often provided by voluntary, community or social enterprises (VCSE). Brokering connections between these entities are variously named roles, with ‘link worker’ being the preferred term within the NHS. Although SP is not a new concept [16], its incorporation into the health system is more recent: A national rollout marked a significant expansion of link workers [13]. One driver for formal incorporating SP within primary care is the recognition that 20% of GP consultations are related to social rather than medical issues [17, 18].

Against this backdrop, in the current study, we are interested to explore the factors that incline GPs to refer patients to social prescriptions and how such referrals relate to decisions to prescribe medication. In the remainder of this introduction, we will provide a brief overview of the factors that influence GP prescribing practices, highlighting the limited research that has explored the interplay between social and pharmaceutical prescribing. Finally, we will outline the concept of mindlines which will serve as the framework for analysing the accounts provided by GPs regarding their prescribing practices.

GP prescribing is influenced by a range of factors including their experience of medications, national guidance, recommendations from secondary care, exchanges with colleagues and characteristics and preferences of patients [19–21]. Time pressures on doctor–patient consultation time increase the likelihood of an antidepressant prescription [19, 22] and reduce the likelihood of deprescribing [21]. The lack of immediate alternatives also inclines GPs to prescribe medication in the first instance [23].

To date, there has been limited consideration of GP engagement with SP [24] despite their role as primary initiators of referrals [25–27]. There is still less knowledge about the relationship, if any, between GP referrals to SP and the prescription of medications. Certainly, GPs recognise that many consultations are occasioned by social and environmental factors, recognise the limitations of medicine as a response [28], and are in principle supportive of SP and motivated to find nonmedical solutions where medicines prove ineffective [29, 30]. Rural and remote practices often face distinctive logistical challenges, such as limited access to specialist services or community resources. These may influence patients’ preferences and GPs’ decisions to refer patients to SP or to opt for pharmaceutical solutions. For instance, issues of proximity were related to feeling ‘safe’ in attending a SP activity [15], as well as practical issues relating to travelling distances where public transport was less readily available. These contextual factors are important for understanding the diverse approaches GPs take to patient care and provide a rationale for future research into more remote or rural locations where these challenges may be more pronounced.

Evaluations of SP have focused on a range of patient and system outcomes. System-level outcomes include healthcare utilisation, financial and economic outcomes, workforce experiences and medication use and prescribing [31]. To date, there has been limited exploration of prescribed medication as a system outcome.

Currently, there is no substantial evidence, indicating that SP can reduce healthcare resource expenditure on medicine, and it has not actively targeted polypharmacy [32]. The outcomes of the few SP evaluations focusing on medication have produced inconsistent findings. In one randomised control trial, patients referred to SP received a significantly greater number of prescriptions postreferral, especially for mental health drugs, than those receiving routine GP care [33]. In a similar setting—where the impact of signposting to community services was being evaluated [34]—a before and after comparison conducted 3 months pre-referral and postfirst appointment found a reduction in prescription of psychotropic medications. Loftus et al. [32], explicitly exploring the effect of social prescription programmes on healthcare resources, found no statistically significant change in the number of repeat prescriptions at referral and 6–12 months later. However, the study was underpowered due to low uptake of SP postreferral. In the same year, using anonymised prescribing data, Carnes [35] compared the number of medications prescribed to SP attendees and matched controls. Those referred to SP maintained a stable number of prescribed medications compared to an increase in the control group. A qualitative evaluation of community gardening described participant reflections about stopping their medication since taking part [36].

To develop an informed response to Moffatt et al.’s [24] call for ‘further evaluation of the impact of SP on healthcare usage and costs—including medication’, it is important to consider the social processes that shape the decisions to refer to social prescribers and/or to prescribe medication. The patient consultation with GPs holds particular significance in this context. While other professions may also make referrals to SP, GPs play a central role as both the gatekeepers to prescribing medication and referring to social prescribers.

Our examination of GP decision-making processes regarding SP and medical prescribing will be framed using the concept of mindlines. In their seminal paper, Gabbay and May [37] used the concept of mindlines—defined as ‘collectively reinforced, internalised tacit guidelines’—to describe the sources of evidence that clinicians draw on to make decisions. Applying mindlines in relation to prescribing, Grant et al. [20] described them as ‘personal formularies developed from and informed by their experience of medication (including patient’s experiences), specialist advice, discussions with their practice pharmacist and GP colleagues and the practice’s macro prescribing policy (if present)’. Exploring the mindlines that guide decisions around prescribing of medicines where there is clear external guidance, for example, for hypertensives [38] and antipsychotic drugs, Barley [39] challenges the overly rational assumption that issued guidance is adopted. In contrast to medication, and unsurprisingly given the absence of evidence [15, 40], SP is informed by best practice advice rather

than statutory guidance [41]. This variability in guidance renders this an interesting setting for identifying the mindlines that encourage and constrain decisions as to when to prescribe medicines and/or refer for SP support.

Almost three decades ago, Britten [42] advocated the use of qualitative methods to better understand the complex reasons for overprescribing and examine what GPs think and do when prescribing. This interview study represents the first attempt to characterise the nascent mindlines of GPs regarding the appropriateness of social prescriptions as adjuncts to or alternatives for medical prescriptions, as well as the factors that influence and constrain these choices.

## 2. Methods

A purposive sampling approach was employed to recruit a heterogeneous sample of 12 GPs practising in and around a city in the South of England. To initiate the recruitment process, an email detailing the study was sent from a Clinical Commissioning Group (CCG) to 26 GP practices. Both the CCG and practice managers informed the research team that recruitment was affected by surgeries experiencing more pressures on availability due to the COVID-19 pandemic. All GPs provided written consent to participate in the study. None of the participants were previously known to the interviewer or had a particular role in SP (e.g., SP champion, SP network member). Demographic details of the participants are provided in Table 1. Self-reported referral rates provide an indication of each participant's experience of SP.

The interviews explored both medical and nonmedical referral practices. To facilitate the discussions, drawing on Hyde et al. [19], vignettes were used to stimulate discussions on prescribing practice. The first asked GPs to reflect on a past instance when they referred a patient to a SP link worker. The second centred around situations where patients were prescribed medicine, and in hindsight, a social prescription could have been considered as an additional or alternative strategy (see Supporting Information 1 for the interview schedule and prompt scenarios).

All interviews were conducted remotely using the Microsoft Teams online meeting software (version 1.4.00.29477, 2021) and lasted between 30 and 53 min. Each interview was recorded, transcribed clean verbatim, checked for accuracy and anonymised. As a token of appreciation for their contribution, participants received a £50 voucher.

The purpose of the study was conveyed in written information to all participants, and they provided written consent before the start of the interview. They were assured that no personal details would be disclosed in reporting the study. They were informed that they could withdraw from the interview at any point before their data were anonymised. Ethical approval was provided by the Health Research Authority (Ref: 278953) and the Psychology Research Ethics Committee at the (BLINDED) (Ref: 20-072).

The principles and practices of reflexive thematic analysis guided the analytic procedure [43]. Data analysis followed the steps outlined by Braun & Clarke [44]: familiarisation with data, generating initial codes, identifying, defining and reviewing themes, and finally reporting

TABLE 1: Participant demographic details.

GP code	Age	Gender	Years of experience	SP referral rate (per annum)
1	51–60	Male	25	1–10
2	51–60	Male	26	1–10
3	41–50	Male	19	1–10
4	30–40	Female	3	11–30
5	30–40	Male	2	11–30
6	41–50	Female	12	1–10
7	51–60	Female	24	51 and over
8	30–40	Female	6	31–50
9	41–50	Male	9	11–30
10	30–40	Female	1	51 and over
11	41–50	Female	14	51 and over
12	41–50	Female	13	11–30

them. To maximise rigour, thematic development and refinement was conducted in collaboration between SW, JB and EC. For coding and analysis support, we first utilised Taguette software [45] and subsequently recoded the data in NVivo (version 14.23.2; Denver, Colorado). Throughout the analytic process, the researchers engaged in discussion and reflections over multiple drafts of the codes and themes. Given the reflexive approach taken, we do not seek to justify the sufficiency of the analysis with reference to saturation [46]. Rather the themes identified are a function of the richness and quality of the information that our participants contributed [47], the recurrence of relevant data and the way in which these are brought together into an account that addresses the research questions: 'does it offer useful insights that speak to the topic in relation to context and sample?' [48]. Interview extracts (with a code that can be cross referenced to the participant information in Table 1) are used to illustrate the analytic points being made.

## 3. Results

We set out to characterise the factors that GPs identified as inclining their decisions towards or away from medical and social prescriptions. We identified seven considerations that shaped their decision-making. We grouped these under three superordinate themes relating to the situation of the patients, of the GP themselves and characteristics of the SP system in their practice. Figure 1 provides an overview of the themes and indicates whether they tended to incline GPs towards a medical or a social prescription.

### 3.1. Patient Considerations

**3.1.1. Socioeconomic Circumstances.** GPs acknowledged that social inequalities associated with, e.g., housing and finances can lead to patients experiencing poor health. They recognised that this could not be addressed through their competence or expertise. Such situations signalled the value of making a referral to the link worker. In addition to these structural issues, other characteristics and circumstances

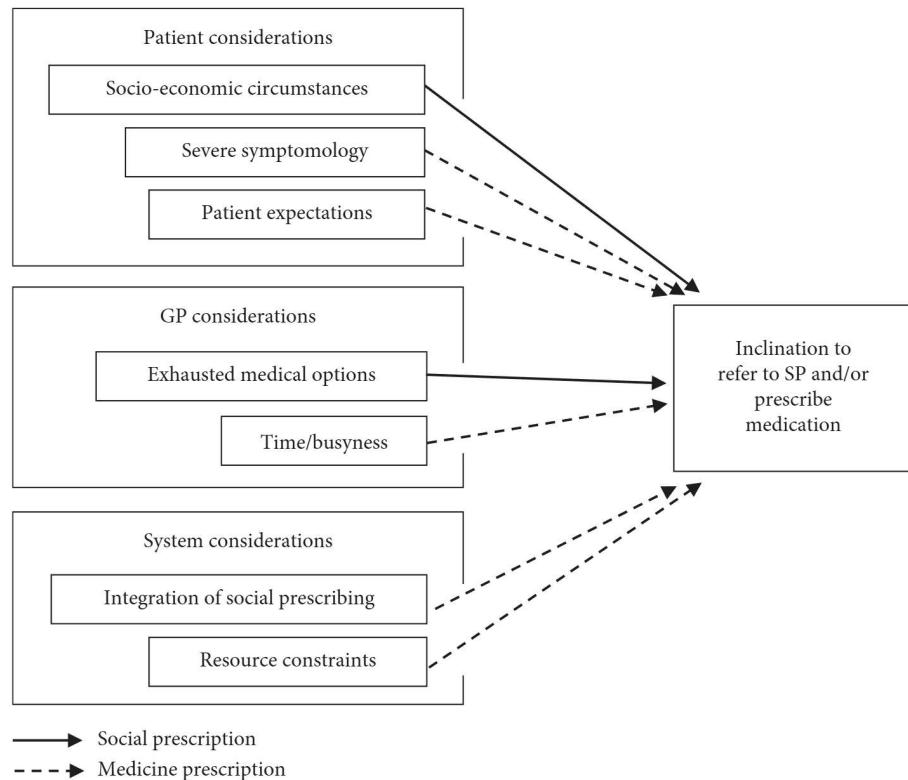


FIGURE 1: Analysis of intentions to refer to SP and/or prescribe a medicine. The solid arrows represent drivers to make referrals to SP. The dashed arrows are drivers to prescribe medication.

were also seen as benefiting more from social than medical input—for example, being isolated, unable to exercise or having no hobbies.

*"I suppose we get a lot of patients where possibly the things that are impacting on their mood is, uh, a lot around housing and financial stuff, and I don't have a lot of, I don't have any expertise in that, so there's this kind of blurred boundary, I think, of the things that we don't really know about as clinicians, so it's good to have someone who has a good understanding of those elements. So benefits and ideas of housing and how to access better housing. So someone that might be able to guide a patient where those elements are causing stress and anxiety and impacting negatively on mental health" (GP12)*

GPs readily drew boundaries indicating the limits of their expertise and the likely effectiveness of medication. Some viewed social and relational issues as '*non-solvable problems*' (GP6) and recognising it would not be effective, tried not to prescribe further medication.

*"So, it was a kind of a deterioration in mental health, but it was very clear to me that it was rooted in life circumstances. And you know, this is the sort of interface for me where I have relatively low expectations of medication being the solution to the problem" (GP2).*

The distinction seemed clear between problems designated as medical that required medical expertise and those where social issues were considered as the root of the presenting problem. Recognition of the links between life events and mental and physical health prompted consideration of SP as a viable option. As one GP noted,

*"I think sometimes it's easier to bring the social prescribers sort of to the fore of our thoughts when people present with anxiety or depression... a lot of studies have presented showing orthopaedic presentations are actually not always orthopaedic, but for them there's a lot of life events and potentially mental health issues tied in there" (GP 9).*

Where challenging social circumstances were a visible link to the presenting health condition, this signalled the likely ineffectiveness of medication; improvement was more likely to reside in SP.

**3.1.2. Severity of Patient Symptoms.** GPs were more inclined towards prescribing a medicine when the patient's symptoms were more serious. In this situation, the role that social conditions were adjudged to play became less relevant, rather it was severity that determined the course of action and in the face of serious problems, medication rather than social interventions were the first port of call.

The following quote clearly illustrates the recognition of social circumstances being the trigger for the presenting problem, and retrospectively, this signalled the possible value for SP. However, it was the immediate severity of the problem, linked to the spectre of suicide, that justified the necessity for medication.

*"He was actually quite along far along that track of sort of thinking that maybe the answer would be to end his life. And I think that sort of level of assessed severity [ ] probably steered me very much into the kind of... (to) treat this as an illness called depression as a medical problem rather than... Whereas actually, you know a lot of the stuff that was going on was kind of driven by changing financial and identity..., you know he'd gone from being a working person to a chronic invalid. And so I'm sure that there was potential for social prescribing to be of value there. But as I say I think it probably didn't cross my mind at that time because I was reacting to this as a more serious problem that I felt, you know, I've gotta definitely weigh in with medication here."* (GP2)

Less pressing problems, even though serious, led to a greater consideration of SP, albeit sometimes in conjunction with medication. In part, this was about the timing; medication offered the possibility of more immediate effects. However, it was also borne of a recognition that medicine would not be effective for many chronic problems, especially those linked to anxiety, depression and pain.

*"You know if you can [] get someone engaged in, I don't know, like a regular walking group. And by doing that they are fitter, which it probably will reduce their weight, which will reduce their pain because of their weight. Reduce, probably improve their mental health which will reduce their pain. Probably give them more social interaction which will reduce their pain. You might find ... you probably find ... that you'll be able to reduce some of their pain meds. That's a really good example. I guess you know, of examples that I've heard of, so you know, men's mental health. If you get involved with men shed or something like that, or like a running group or something like that. Something with collective activities and you're getting the support that way, you'll often find that you can bring people off them onto a lower dose of antidepressants or get them off faster."* (GP 4)

Even where the GP is faced with immediate and serious problems, SP may be considered as an adjunct to medication and support the possibility of deprescribing.

**3.1.2.1. Patient Expectations.** Although aware of the external guidance to steer away from medical prescriptions where possible, GPs noted that patients often expected to receive a prescription or be referred to some other medical investigation. They experienced this as a pressure to prescribe medication and so felt conflicted when trying to do otherwise.

*"But I think some people come with a fixed [ ] well, quite a lot of people come with a very fixed view as to what they need to have and when you say well, actually you just need to talk to someone or someone will help you sort out your problems they'll probably think that being a little bit limp and probably expect something a little more from me really so I think there's probably more of an expectation to actually physically ... me to do something"* (GP1)

Those with long-term conditions are generally established on medications for their condition. One GP felt they 'might kick up a fuss if I sent them to the social prescriber when they wanted pain relief' (GP10) and that this might have a negative impact on the long-term patient–doctor relationship. This mismatch between the patients' analysis of the problem coupled with their expectations of medical treatment can result in a lack of receptiveness to the possibility of SP.

*"And yeah, so in an ideal sense, I think she'd be a great person for the social prescriber to get her linked in with, but (she) is absolutely adamant that there is nothing you know. There's no mental health component to it. No anxiety component, no loneliness component; this is all physical."* (GP4)

For others, referral to a socially focused intervention may constitute an acceptable offer where the offer of support over and above the resource constraints of their GP was appreciated.

*"I can't remember exactly how the conversations went, but I think in in those sort of circumstances those people are quite happy to have any sort of input, really, and I think when I tried to explain that you know there were people who would be trying to help them in some way, perhaps over and above what I could do. Yes, they were very accepting of it."* (GP1)

Although some were adamant that they did not want medication and were open to alternatives, GPs commonly experienced that patient expectations centred around receiving a prescription. The inference could then be drawn that referral to a SP pathway was unanticipated and therefore unwanted.

### 3.2. GP Considerations

**3.2.1. Exhausted Medical Options.** GPs reported spending substantial time performing investigations or attempting to treat patients frequently attending with mental health and chronic conditions, with little progress or resolution. One described feeling a sense of deep frustration and helplessness in this situation:

*"Nothing we do really helps and that's why they keep coming back to us... every possible avenue of treating this person, every possible referral has been made and they keep coming back. Nothing changes"* (GP5).

It was a common experience for the GP to question the viability of continuing this approach and recognise their need for support. Here, the possibility of SP was considered by virtue of having exhausted medical options:

*"It could be someone you're seeing multiple times and just not getting to the bottom of it. You don't know what to do. You don't know where to turn so you think gosh, is there someone else who can help me out here? I'm not helping this patient. I'm not doing the best thing for them. Someone else needs to help me" (GP10).*

Sometimes the recognition that the GP's input was not helping was specifically linked to the acknowledgement that the medication that was being prescribed was limited, ineffective and even counterproductive. This too led to a consideration of other nonmedical options:

*"there's a big push at the moment to deprescribe patients with only about 10% of them having any benefit from their medications, so it would be quite useful to take something away, but to give something else.... you know, they could work in that way" (GP6).*

**3.2.2. Time/Busyness of GP.** Time pressures and the length of appointments constrained conversations about, and referrals to, SP. Aligned to a recognition that referral to SP was likely to be the most appropriate response was the reality that there was little opportunity within allocated appointment time slots to introduce and discuss its possible benefits.

*"[Prescribing medication] is easiest way out. You don't have to have that big conversation about what a social prescriber is or start delving into lots of social stuff or lots of mental health stuff. You know, if I wanted to, that would be the easiest thing to do. Would be to just do a prescription and be done and dusted. It does. You do need that time to do that. The social stuff and that's often what we're lacking in general practice is time." (GP4)*

It was not only the explanation of the social prescription that was envisaged to take time; time would also be required to explain why a particular prescription might be unnecessary.

*"you're just going 'yes I could give this person to social prescribing', the actual referral process is very, very quick, but telling that person what it is, explaining how it might help them, getting them on board, that can take five minutes and five minutes is a long time when you're that busy and I think that may be why things tailed off a little bit there for me." (GP5)*

*"we're definitely, if we are pushed for time, more likely to issue a prescription rather than have a long conversation about suitability of antibiotics for a cough or other things" (GP8).*

Giving a medication, prescription could serve to signal the end of the consultation. In contrast suggesting a referral to SP heralded a new, possibly extended, conversation though paradoxically, it was recognised that those longer conversations, in the end, could increase the likelihood of improved outcomes. GPs recognised that link workers were in a better position than they were to have the required conversations.

*"But yeah, it was useful to do that [refer to link worker] because otherwise it's just. It's too overwhelming and it would have taken absolutely hours to listen to her story [...] I've definitely got gaps in my knowledge when it comes to the social side of things, and obviously there's people who this is there. This is their life, it's their job. They will do it better than me, and they've got the time to do it" (GP10)*

### 3.3. System Factors

**3.3.1. Integration of SP.** Within-practice systems of referral to SP are evolving. Where there was uncertainty about the SP system, this disinclined GPs to a referral. This in turn tempered the extent to which SP could confidently be offered to patients as an alternative or adjunct to medication:

*"I think at the moment we've probably still got to find our way with social prescribing cause I think I'm probably not alone in most general practitioners are not quite sure where it will fit yet. I think we all feel it could potentially be useful, but we don't quite know how best to use it" (GP1).*

Interviewees offered some reflections as to how the SP system might become more familiar to them and more established as a process. There was reference to the potential value that case studies could have to increase understanding of SP amongst GPs and thus lead to more engagement with SP:

*"I think also sort of dry training is not that useful but going through case studies of this particular case, what we used and the outcomes would be very useful and I think .. more doctors would use it if they understood it better and saw how it could benefit their patients" (GP6).*

However, there were also more specific suggestions as to how greater confidence in the system could be fostered. First, feedback processes following SP referral were considered as important in building up an understanding of the appropriateness and effectiveness of the referral. This would help to build experience of what the SP process could achieve:

*"I think perhaps having some feedback about, you know what's happened, whether my referrals have been appropriate. [...] What has become of the referrals that I've made that would be also useful. And I think it will just gradually enter our consciousness. As I say, it's a relatively new [...] profession, I suppose, a new discipline very much, the same*

*as, you know, we were getting lots of other ancillary staff that are coming in that we're still trying to find a place for. For, you know, pharmacists, physicians assistants and associates, and that those sort of things, we're trying to find how they're all going to fit together in the sort of jigsaw, and I think social prescribing is going to be part of that [...] It's still probably finding its place." (GP1)*

Second, how referrals to the link worker were made could affect GP inclinations to recommend a social prescription. It was noteworthy that greater confidence in referrals and in the SP system accrued through responsive interactions with the link worker. This included receiving feedback from them about patient progress. As illustrated in the quote below, visibility of link workers served as a both a reminder of the SP referral option and confidence that it would be received and managed well.

*"[I was doing] far fewer [social prescriptions] and I think it's just cause she wasn't as visible. Whereas we would see her all the time and actually I'd bump into [them] at coffee and actually of course, "You know I hadn't thought about referring to you earlier, but maybe you can help with this or that problem." And then once we got to know each other, it again makes the referral pathway much easier because sometimes I'm not sure if she can help with that problem so I can just give her a call back... "do you think you might be [ok] with this" and once you get used to referring once, you kind of learn a bit more about what your social prescriber can do it's much easier to send those referrals in." (GP5)*

The importance of the link worker and the nature of their interactions with GPs thus underpinned their willingness to refer patients to a social prescription.

**3.3.2. Resource Constraints.** The inclination of GPs to refer patients to a social prescription was constrained by their awareness that the time of the link worker was a limited resource. Where there was limited link worker availability, one option was to manage the number and the nature of referrals they made in line with this:

*"I could probably do 5 social prescribing referrals a day if I thought about it. But then I know that the system wouldn't cope with that, so it is trying to balance out the people who you think really would benefit from it from those that maybe there are other means that we can help" (GP1).*

Awareness of limited link worker resources particularly constrained referrals for mental health support. One GP, referring to patients with mental health needs, suggested that if '*we did the referral to social prescribing for every one of them, we would completely swamp and break the system'* (GP1).

It was clear that in making referrals, GPs sought to be attuned to the demands that these would place on the SP system. Some felt the system was completely overwhelmed and there were concerns about increased referrals being

made into a system that was fragile, resulting in link workers resigning and unacceptable waiting times. One GP described their response to this as being selective in the patients that were being referred in order to strike a balance between helping individual patients that need it most and seeking to ensure that this did not place too many demands on the system.

*"Yeah, I mean, I think the challenges often been identifying people who need the right amount of support, not someone who needs nothing but not someone who needs some sort of too much really and they're not suitable for a social prescriber [...] think I tend to think of it as it's being the right level of complexity for the social prescriber [...] And so for me, it's about trying to find people where actually the social prescribers going to add value but not just be overwhelmed by the sort of complexity and the multiple needs for that patient." (GP9)*

#### 4. Conclusions

Overprescribing produces unwanted or harmful consequences to people's health and increases the negative impacts of pharmaceuticals on the environment. SP, now formally part of the personalised care agenda in the NHS, is, in theory at least, a healthcare practice that offers the possibility of improved health most particularly relating to depression and anxiety and thus, by extension, avoiding or reducing prescribed medication [3]. This UK study is the first to consider the decision-making practices of GPs that incline towards or away from medical and social prescriptions identifying drivers in both directions that relate to the patient and to the GP's own practices as well as to the SP system itself.

In contrast to the extensive evidence and guidance available to GPs around medicine, SP guidance is mainly centred around recruiting and embedding link workers [49]. The inclinations of GPs around prescription and referral practices can thus be considered as nascent mindlines [37]; the tacit knowledge develops in this relatively new space where evidence about the likely effectiveness of medication, the lack of equivalent evidence for SP, aspirations to do the right thing for patients and pragmatic local pressures all coexist and shape decision-making.

Acknowledging that medical options had been exhausted and perceiving a link between social inequalities and the presenting health conditions inclined to a consideration of SP though not necessarily linked to a reduced reliance on prescribed medication. Inclinations to prescribe medicine were justified with reference to the immediacy or severity of the patient's symptoms. Severity of the presenting condition trumped any attributions of the causal role of social inequalities and led to medication being the first line of defence. Differences in the anticipated time scale of effects—SP considered more viable in the long term than medication—allowed for their simultaneous consideration even when health issues were severe. Constrained appointment times militated against conversations about SP and increased the pressure for a medical prescription. GPs

experienced that patients often expected to receive medication and, in the absence of time for shared decision-making, this tended to create pressure to prescribe medicine. Finally, characteristics of the SP system itself shaped inclinations; a SP being more likely where the relationships with link workers were shaped by in-person interactions, tempered where feedback on patient progress was absent and constrained where there was a sense that referrals would place undue strain on link workers.

The clearest drivers towards referral for a social prescription were where the presenting issues were related to social circumstances, health-related inequalities and when medical options had been exhausted. GPs recognised that social issues were often at the root of, or at least implicated in, many issues that many patients presented with [50]. They recognised that they did not have the skills or time to help where social issues dominated [51]. These were seen as the domain of the link worker who could better advise and support. This is not to say that GPs believed that the link worker could resolve these issues [52, 53], simply that this pathway was more appropriate than they were. The other clear driver for a social prescription was where the GP had exhausted the medical options for helping the patient. This chimes with link workers considering some of the referrals that they receive as being a 'last ditch attempt' at helping that patient [54]. Although GPs were clear about the limitations of medicines and the need to demedicalise where social problems were key drivers of the health issues being experienced [30], referral to SP was tentative insofar as it was questionable whether this would lead to improvements in the patient. Here too, it was rather the case that addressing social and relational issues through the link worker [8] increased the chances of finding a sustainable solution.

GPs indicated that patient expectations of receiving a medical prescription could constrain inclinations to refer to the SP pathway. In line with this, Pescheny [55] noted that patients' 'entrenchment in medical solutions' acted as a barrier to SP and expectations for drug therapy inclined GPs to prescribe for depression [56]. Britten [42] strongly resisted laying the blame for overprescribing at the door of patients. This is echoed in a recent analysis of over-prescribing [3], noting that clinicians as well as patients contribute to a prescribing culture by tending to overestimate the positive effects of medication and underestimating possible harms [57, 58].

GPs have limited time for appointments, and time pressures, exacerbated during COVID, mean that there is less time to propose and explain SP. Time constraints increase the pressure to write a prescription [19, 22] and are a barrier to discontinuation of medication [59]. Indeed, Britten and Maguire [60] raise the possibility that writing a prescription can serve to signal that the consultation is over. In contrast, developing a shared understanding of a problem and the possible options to address it—especially if unfamiliar—takes time that the GP often does not have [8, 61]. It is tempting to explain the effects of time constraints in terms of the heuristics of 'system 1' thinking [62] but this is resisted by Gabbay and May [63] who reiterate that

mindlines are not the fast and frugal thinking that leads to error and bias, but rather 'complex and socially constituted'.

Time was important, not simply in terms of the time available in the consultation, but also in respect of the severity of the patients' situation. Severity brought a sense of urgency that inclined GPs towards prescribing medication at least in the short term [56] although, as noted earlier, where severity was compounded by social inequalities, long-term medication was not sustainable and nonmedical solutions were also required [30]. Drugs were prescribed in the hope of more immediate improvement, sometimes in concert with SP given the possibilities this held for long-term sustainable change. Increased inclination to prescribe medication also arose from the uncertain timelines that referral to a link worker could entail.

The maturity of the SP system itself also affected the GP inclination to refer patients to a social prescription [64]. GPs discussed the link worker roles and system processes as evolving noting that these resources had limited capacity and would be unable to cope with a significant increase in referrals. GP actions play a key role in legitimising SP services, so it is not surprising that GP perception of resource constraints shapes referral practices; the 'buy-in' of patients as well as GPs and link workers will be threatened when, for example, link worker capacity is overextended [65]. There was an evident role for informal communications and interactions in increasing GP engagement with the SP system. The visibility of link workers and their encounters with GPs in the practice setting played an important role in increasing GP confidence in making referrals [65] as did getting feedback on the progress of patients that they had referred [66]. These markers of link worker activity served as informal signifiers of confidence that SP was a system into which patients could reliably be referred.

**4.1. Limitations, Reflections and Conclusions.** It was challenging to recruit GPs during the COVID pandemic with the increased workload in primary care. Recruitment limitations included the sample being relatively modest and from practices located around a single UK city. However, the very specific focus on GP inclinations around prescribing drugs or referring to a SP pathway, and the detailed accounts that participants provided, proved sufficient to derive a nuanced understanding of these prescribing practices and their location in the wider sociocultural context [46]. We recognise that the account of these practices we provide is likely to reflect GP perspectives as the earlier stages of engagement with SP rather than at later stages of adoption. This remains an important perspective given the wide variability in uptake of SP as a system of support [67].

While this study focused around a single city, the inclusion of both urban and rural practices offers some insight into the diversity of clinical settings. However, this research did not capture detailed demographic data regarding the ethnic and cultural backgrounds of patients within each practice. Given the role that cultural differences, language barriers and community engagement can play in shaping the SP landscape [68], this represents a key area for further

investigation. Different cultural practices and the prevalence of English as a second language are likely to influence both GP decision-making and patient expectations around SP. Further research is also necessary to fully understand the extent to which more remote rural practices—facing distinctive logistical challenges, such as limited access to specialist services or community resources—might influence GP decision-making around SP.

Given the lack of formal guidance GPs receive around referral to SP, this study has identified some of the mindlines that explain their referral inclinations to medical and social prescriptions and the ways in which formal and tacit knowledge and experience are drawn upon. SP is a complex system of interventions [64, 65] which are embedded in broader systems relating to the health of both people and the environment. It is thus no simple matter to discern links between these prescribing options, although one specific suggestion of the Department of Health and Social Care [3] is that link workers could be trained to support patients following a Structured Medicines Review.

This is the first study that has sought to explore the interface between SP referrals and prescriptions of medication. Clearly, as we would expect, these are not either/or decisions; there are a range of contingencies which incline GPs to particular courses of action. These questions are relevant to broader debates around prescribing optimisation [3] and SP. Given the impact of pharmaceuticals on water quality and the associated carbon footprint [69], as well as the negative health impacts of overprescribing and problematic polypharmacy, reductions in prescribed medication are increasingly being mooted as an outcome that should be embedded within evaluations of SP [24, 70].

Many of the current critiques of SP interventions focus on the implausibility of them addressing health inequalities [52, 71, 72]. This is challenging given the positive relationship between antidepressant prescribing levels and scores on the index of multiple deprivation [73]. However, it is fair to echo the conclusions of Westlake, Tierney, Wong and Mahtani [74] that the jury is still out on the value of SP although the challenges for design and evaluation of SP interventions that aspire to a reduction in prescribed medication are considerable.

## Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## Conflicts of Interest

The authors declare no conflicts of interest.

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## Endnotes

<sup>1</sup>General practitioner is the UK equivalent of primary care physician in the USA.

## Supporting Information

Additional supporting information can be found online in the Supporting Information section. (*Supporting Information*)

Prompt material and interview schedule used for study data collection.

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