Professional experience guides opioid prescribing for chronic joint pain in primary care

Rachael Gooberman-Hill\textsuperscript{a,*}, Claire Heathcote\textsuperscript{b}, Colette M Reid\textsuperscript{c}, Jeremy Horwood\textsuperscript{a,d}, Andrew D Beswick\textsuperscript{a}, Susan Williams\textsuperscript{d} and Matthew J Ridd\textsuperscript{d}

\textsuperscript{a}School of Clinical Sciences, \textsuperscript{b}School for Policy Studies, University of Bristol, Bristol, \textsuperscript{c}Department of Palliative Medicine, University Hospitals Bristol NHS Foundation Trust, Bristol and \textsuperscript{d}School of Social and Community Medicine, University of Bristol, Bristol, UK.

\*Correspondence to Rachael Gooberman-Hill, School of Clinical Sciences, University of Bristol, Southmead Hospital, Bristol BS10 5NB, UK; E-mail: r.gooberman-hill@bristol.ac.uk

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Background. Chronic joint pain is common and is a leading cause of disability. Most chronic joint pain is managed in primary care. Opioid pain medication is one option for pain management, but research suggests that its use by general practitioners (GPs) may be suboptimal. There is a widespread perception that doctors’ concerns about misuse and addiction limit use of opioids.

Objectives. To explore GPs’ opinions about opioids and decision-making processes when prescribing ‘strong’ opioids for chronic joint pain.

Methods. Qualitative semi-structured interviews were conducted with 27 GPs. Using thematic analysis methods, the data were coded and grouped into themes.

Results. GPs described a variety of prescribing habits for chronic joint pain. Opioids engendered strong opinions. GPs said that decisions about prescribing were based on careful assessment of patients’ needs and their personal views about the management of adverse effects. Although addiction and misuse were discussed, there was limited concern about these issues. The overarching influence on prescribing decisions was GPs’ previous experience, including previous outcomes and exposure to palliative care settings.

Conclusions. GPs’ prescribing decisions are primarily influenced by previous professional experience of opioids. Much existing literature stresses that opioids are not prescribed due to concerns about addiction or misuse, but our study indicates otherwise. Augmenting GPs’ exposure to and experience of opioids may be key to providing better pain management for patients.

Keywords. Family medicine, opioids, pain, prescribing, qualitative.

Introduction

Pain that lasts >3 months—chronic pain—is a disabling, affecting activity levels, social interaction and well-being. Over 46% of the general UK population experience chronic pain and most such pain is musculoskeletal in origin. Management of musculoskeletal pain is often multimodal and may include combinations of exercise, physiotherapy, medication, lifestyle changes or psychological intervention. Although all these elements play important roles, 60–80% of people with chronic pain use pain relief medication. General practice is the first point of contact for formal services for most people with musculoskeletal pain and much prescribing for pain takes place in this setting.

Pain relief medication options for musculoskeletal pain comprise paracetamol, non-steroidal anti-inflammatory drugs (NSAIDs) and opioids. Paracetamol is a weak analgesic and the use of NSAIDs is restricted by their gastrointestinal, renal and cardiovascular adverse effects. Therefore, opioids may be the only option for people requiring pain relief stronger than that afforded by paracetamol.

Current guidance in the UK classifies opioids as ‘weak opioids’ (for mild to moderate pain) or ‘strong opioids’ (for moderate to severe pain). Weak opioids comprise codeine, dextropropoxyphene, dihydrocodeine and meptazinol. Strong opioids include fentanyl, morphine and tramadol. Good practice guidance points out that ‘the distinction between these groups is not always clear and might depend on the dose’ and
that ‘the term “weak opioid” should not encourage lack of caution in prescribing’. Due to concerns about safety, choice of weak opioids in the UK has recently been reduced by the restriction of coproxamol to prescription on a named patient basis. More widely associated with the treatment of cancer or post-operative pain, evidence suggests that strong opioids are effective for many patients with chronic non-cancer pain, including musculoskeletal pain. However, the implications of their long-term use are not well understood, and there is dispute over their appropriateness and the balance between risks and benefits for chronic non-malignant pain. Many patients with chronic non-cancer pain see opioids as an acceptable option, but opioids are relatively infrequently prescribed in primary care for non-cancer pain. Awareness that a significant number of people live with poorly controlled chronic pain has led to the development of new guidelines for the use of opioids in chronic non-cancer pain.

It is known that clinicians and patients may hold strong views about opioids. For instance, some patients with chronic non-cancer pain may worry that an offer of opioid medication is the last resort or may lead to addiction. These concerns may be shared by some clinicians, along with concerns about misuse and scrutiny by authorities. While scrutiny is a particular concern in North America, UK-based research identified personal beliefs about opioids as a key reason behind general practitioners’ (GPs) decisions about prescribing opioids for non-cancer pain. However, the reasons behind these views have not been defined. Furthermore, the idea that doctors may not prescribe opioids due to concern about addiction or misuse persists in the literature. For instance, a recent article in the Drug and Therapeutics Bulletin states that ‘some GPs may be reluctant to prescribe strong opioids for osteoarthritis’. This may be due to concerns about addiction or long-term use of controlled drugs for non-cancer pain. Our study aimed to identify GPs’ views about prescribing strong opioids for chronic non-cancer pain with focus on chronic joint pain as the most common, disabling, and frequently encountered condition in primary care.

Methods

Selection of GPs

GPs working within and near to a large UK city were purposively sampled using information from the local National Health Service Primary Care Trust and Primary Care Research and Development Consortium. Information used for sampling GPs was years since qualification, gender and postal code for their practice. Sampling aimed to ensure representation of men and women, GPs with a range of years since qualification and those working in areas of different health deprivation levels as defined by the UK Office for National Statistics. In two waves of recruitment, 67 GPs were approached by letter, which was followed up by a telephone call within 2 weeks. Twenty-seven GPs agreed to take part, the others were either unavailable to talk on the telephone or declined at this point. Data saturation, such that no new insights were arising from the data, was achieved once 27 interviews had been completed. At this point, no further recruitment was conducted.

Ethical approval

Ethical approval was provided by the appropriate local Research Ethics Committee in 2007, reference number 07/Q2002/26.

Interview procedure

Participating GPs provided their written informed consent to take part, including their consent to be audio recorded and for anonymized quotations to be published. The project researcher (CH) conducted face-to-face interviews with GPs in 2007. Interviews took place at GPs’ surgeries, each lasted 30–45 minutes with the exception of two short interviews, which were 20 minutes each due to these GPs’ pressing commitments. Lunch or a snack was provided to facilitate participation during GPs’ break times. The researcher used a topic guide to focus discussion on GPs’ experience of managing chronic joint pain, views and practice regarding prescribing opioids and patients’ views about opioids.

Data analysis

Interviews were transcribed, anonymized and imported into the qualitative data management software package Atlas ti. Thematic analysis was ongoing and iterative such that early analysis informed questions for subsequent interviews. Two members of the team (RG-H and CH) derived codes from early transcripts and a portion of transcripts was independently coded by a third team member (JH). The code lists developed from this process were compared and refined in discussion with the whole study team to develop a single coding frame. The codes were applied to more transcripts; as the analysis of transcripts progressed, the coding frame was revised a further four times in discussion with the whole study team to develop a single coding frame. The codes were applied to more transcripts; as the analysis of transcripts progressed, the coding frame was revised a further four times in discussion with the whole study team. Once coded, data were grouped into key categories or ‘themes’. Descriptive accounts were then developed comprising descriptions of the themes and illustrative quotes. All GPs’ initials refer to pseudonyms.

Results

GPs’ characteristics and prescribing habits

The 27 participants comprised 13 men and 14 women with 6–34 years’ experience since qualification (Table 1).
Most GPs in the study said that they had initiated codeine for patients with chronic joint pain. Many had prescribed tramadol, but fewer had initiated what they perceived to be ‘stronger’ opioids, such as morphine. Attempting to categorize GPs’ prescribing simply according to whether they did or did not prescribe strong opioids masked unusual circumstances and the complexity of prescribing. For this reason, Table 1 includes some context in which opioids are prescribed rather than dividing GPs into those who do or do not prescribe certain opioids. For instance, behaviour and decisions reported by GPs included willingness to prescribe strong opioids; a lack of opposition in theory but no instances of prescribing; and willingness to prescribe strong opioids only in particular circumstances, such as continuation of prescriptions from secondary care.

Are opioids the best option?
GP’s described the importance of identifying an underlying reason for a patient’s pain, as well as the need to assess pain severity (Box 1). In describing their views...
about opioids, they explained how they considered whether opioids were the best option. However, for some patients, referral to surgical intervention was seen as a more appropriate treatment pathway than management with strong opioids. While some GPs’ reflections on opioids themselves and whether opioids were the best option for their patients were couched in forceful terms, all GPs described multifaceted reasons for their prescribing decisions, whether or not they initiated strong opioids.

Two factors that might have contributed to decisions were explicitly addressed through direct questions: managing adverse effects and views about addiction and misuse. These two issues are presented as themes in their own right. In addition, a third, overarching theme—that of the role of GPs’ previous experience of prescribing opioids—arose inductively as data collection progressed. We address these three themes in turn.

**Managing adverse effects and assessing vulnerable patients**

We asked GPs to discuss their views and treatment of adverse effects of opioids (Box 1). They discussed the management of the adverse effects of opioids, including constipation, dizziness, drowsiness and nausea. GPs discussed prescribing antiemetics, laxatives and bulking agents as ways of managing some of these. The challenge but necessity of balancing patients’ need for adequate pain relief with the risk and management of adverse effects was a common point made by GPs.

Prescribing decisions for older people were affected by the risk that opioids might cause dizziness, drowsiness or nausea. In particular, GPs were concerned about the risk of falling in the older population as well as noting the need to consider the possible impact of co-morbidities. GPs expressed caution and the need to balance effective pain relief with maintenance of patients’ safety.

GPs also talked about how they weighed up their own preferences and the risk of adverse effects with the need to match medication to individual patients. However, as opioids were seldom a first line of treatment, GPs described how opioids fitted alongside other medications, such as paracetamol or anti-inflammatory drugs. The most common way that GPs described how they made decisions about medication was through reference to the World Health Organization ladder of pain relief for cancer pain  and principles of palliative care. However, GPs’ descriptions showed that their application of the pain relief ladder was influenced by the need to manage adverse effects, patients’ preferences and concern about drug safety.

Striving to manage adverse effects and to balance the possible benefit with the potential risk of strong opioids was a concern for GPs. Although consistently aware of potential adverse effects and management options, it was clear that GPs made decisions about prescribing that were individualized.

**Views about opioid addiction, withdrawal and misuse**

We asked GPs to discuss their views on addiction and misuse of opioids (Box 2). Many described lack of experience in dealing with addiction, but this awareness was usually tempered by an understanding that this concern might be unfounded. GPs explained their thoughts about addiction in terms of the need to obtain adequate pain relief. Although withdrawal from opioids was generally seen as manageable, some
Box 2  Views about addiction, withdrawal and misuse

Dr N: Again I suppose if we’re prescribing I would sort of go up, up to, titrate it up to tramadol … but [I am] a bit reluctant to go beyond that.

Interviewer: Are you able to say what it is you think that is behind that reluctance?

Dr N: Um I suppose it’s … a bit of a vicious circle, it’s lack of experience of getting people off the opioids … The kind of fear that you’re going to have someone hooked on it, which um I think is probably unfounded.

Dr G: And yet at the end of the day, if someone’s got chronic pain it doesn’t matter if they’re addicted to painkillers if it sorts out their quality of life.

Dr X: I’ve certainly had a young man who had, well a young man, he was 40 something, he had both hips done very young because of avascular necrosis. And he was on um long acting opioids, morphine and of course he got hooked on it … and it wasn’t until … well none of us realised it until he’d had his hips done. And of course, the hospital just had stopped them, bang, because there was no need. And I mean he went through quite a nasty withdrawal.

Dr U: I mean you try, again you try to make sure there isn’t too much [opioid medication] in the community for people to be thieved from, that’s another possibility.

talked about the impact of the poor management of opioid withdrawal, for instance, following joint replacement surgery.

Concerns about misuse or diversion of opioids into the community were discussed. While some GPs described how these issues might be a concern with certain patients, they were not identified as having major impact upon prescribing. Instead, they were seen as issues to be tackled as and when they arose and emerged as a common theme regardless of the condition for which opioids were prescribed. GPs described addiction and misuse as issues that should be dealt with but that did not present barriers or factors in decision making about prescribing opioids.

The importance of previous experience
Throughout the interviews, it became clear that GPs’ previous experiences of opioids were core influences on their current prescribing decisions (Box 3). Previous experience affected views about appropriate prescribing and affected the thresholds at which the potential for adverse effects might be seen as tolerable.

GPs who did prescribe strong opioids for joint pain talked about their experience in doing so for other conditions, particularly stemming from their experience in palliative care. GPs who prescribed strong opioids also said that they did so if they felt that such drugs were well recognized as a norm. Conversely, GPs who said that they did not prescribe opioids for joint pain attributed their preference to inexperience with opioids or in palliative care.

GPs compared their own practice with that of colleagues. They talked about how norms of accepted practice among clinicians and the judgement of others affected their prescribing decisions. Some GPs attributed fears about prescribing opioids to awareness of Dr Harold Shipman, a British GP who was found to have unlawfully killed many of his patients with morphine. GPs also reflected on public opinions about strong opioids and expressed that patients might be concerned about receiving a prescription for opioids. In addition, GPs who had themselves taken opioids for their own pain talked about this experience and how it influenced their views of patients’ ability to tolerate pain or certain medications.

Age and experience of GPs were discussed in some detail in relation to the origins of GPs’ views about opioids. One GP thought that younger GPs were more likely to be risk averse about opioids. However, deep-seated concerns about opioids were also cited as reasons why older GPs might have misgivings about prescribing opioids.

GPs who described negative previous experiences discussed the impact of these on their practice and how such experiences would affect their future decisions. At the extreme end of the spectrum, GPs described the deaths of patients using opioids, while others talked about patients not coping or becoming ‘agitated’ in response to particular modes of administration. Although not necessarily in relation to joint pain, these experiences nonetheless affected their perceptions of opioids for any condition.

All GPs in the study described how their perceptions of opioids were inextricable from their previous experience, whether positive or negative. When GPs had encountered serious problems in the past, they were more likely to avoid prescribing strong opioids or were more likely to exhibit extreme caution when doing so. Conversely, experience of palliative care settings within which opioids are frequently used boosted GPs’ confidence in prescribing opioids for joint pain. However, GPs always took individual circumstances into account when making decisions with patients about their pain management.

Discussion
In this qualitative study, GPs described a variety of prescribing habits. When making decisions, they said that they took into account the risk of adverse effects and the needs of individual patients. It was clear that for all the GPs in this study, previous experience of prescribing opioids played a leading role in their decision making. Previous research into prescribing opioids has centred on beliefs about the drugs themselves and much literature stresses worries about addiction or misuse. In our study, although GPs were aware of the potential for addiction or misuse, these issues were not overriding and their concerns were...
Box 3  The importance of previous experience and opinions of others

Experience in palliative care
Dr F: I have to say, in some ways a lot of the principles I use are using the sort of the pain ladder . . . and um, and so which I guess is sort of principles really of palliative care.
Dr V: But I don’t really see much difference in the way that I’d use opioids [in chronic joint pain] to the way I’d use them in palliative care. I mean the principles are exactly the same of getting the dose right and . . . titrating the dose with a liquid.
Dr K: I’m not somebody who prescribes new drugs as soon as they’re out on the market . . . I’ll wait till there’s a sort of established use for them, um usually through secondary care.
Dr C: I think it’s just due to lack of experience with using opioids for non-malignant pain . . . and because I haven’t really done a lot of palliative care either.

Opinions of other professionals
Dr D: I know one of our partners is actually very concerned that we’re dishing out these really strong painkillers to people, and do they really need them? . . . I haven’t felt that the people I see with problems with pain from arthritis need, well no, will be able to cope with or need an opioid.
Dr G: And so it doesn’t happen, and it’s not the norm, and it’s like you’re stepping outside the norm.
Dr N: It’s very rare that we would look to using opiates for chronic joint pain. But it might be better if it’s more freely accepted. I think it’s the accepted prescribing patterns that stop us.
Dr X: I have to say, I very rarely use strong opioids in joint pain. Um, you know, why is that? I suppose there’s, well certainly since Shipman, you know, there is a general twitchiness around opioids.

Views of the public
Dr A: And that’s probably a worry as to why, as GPs in general, why we don’t provide it [strong opioids]. Because we’re scared of being in front of the coroner having to explain our actions, with a load of angry family and relatives wagging a finger at us, when all we’re trying to do is really help . . . and if it works, brilliant. If it doesn’t work, or it has toxic effects, people are very quick to criticise.
Dr Q: Opioids have got a sort of bad name in general. So there is some reluctance on the part of some patients to do that. I don’t particularly have any fear of opioids and using them, and I use opioids quite a lot, you know, for other things . . . I think it’s just purely a matter of individual cases, you know, whether they have sufficient pain to warrant that, and in those that do, that the patients are happy to use it.
Dr W: In fact I’m surprised at how many of them [patients] are on such a big dose of say co-codamol, and seem to be running round quite happy on it. Because I’ve had a go for it for my OA and er I just don’t—I couldn’t do it.

Reflections on origins of doctors’ views
Dr F: Well I think of doctors, you know, the doctors who have been used to carrying round diamorphine in the back of their cars and dishing it out to people in the middle of the night and, you know, all this sort of thing, um are less frightened of it than people who are brought up in the culture today.
Dr I: I think the other thing is a lot of doctors of my generation remember being in hospital with staff being horrified by people being on morphine. You know, and I can remember being terribly upset watching people dying, and nurses saying things like, “Oh they can’t have their next dose yet, you know, because they might get addicted.” And you’d think, “They’re dying, what does it matter if they get addicted?” So there was this terrible feeling of, you know, people having too much pethidine, too much morphine . . . and um I’m sure that’s why we’ve been slow off the mark to think about using stronger analgesics in practice because of this background.
Dr D: But we have had um, we’ve had a couple of people recently who have been on strong opioids long-term, and certainly both of them it was for OA, and they ended up with perforated bowels from being chronically constipated.
Dr G: That experience I’ve had of people who have been opioid naive, I’ve seen it twice in on-call sessions actually. They’ve had a fentanyl patch slapped on them, in the elderly, and I’ve seen them, I’ve been called twice now . . . to elderly who have been screaming and thrashing out, or sort of seeming to be incredibly agitated on them. And it’s been difficult to know if they were in pain or if they’ve been knocked flat by the fentanyl, because of what they’ve been put on, which hasn’t been very good because they haven’t had very good kidney function. And so I just haven’t had very good experience.

mediated by previous experience, which was influenced by views of their peers, perceptions of public views and positive or negative experiences of opioids in the past.

Research into medicines other than opioids indicates that decisions about prescribing are influenced by structural factors, experimentation, doctor–patient relationships, etiquette and professional autonomy.22–24 All these issues were apparent in our study as GPs responded to guidance, made decisions based on assessment of individual patients and strived to make decisions that were appropriate within the scope of their knowledge, experience and peer group. It has also been suggested that GPs work to achieve appropriate prescribing by evaluating themselves from the perspectives of others.25 This was the case in our study, as GPs described how their prescribing behaviour was influenced by how they thought that others might judge their prescribing. In addition, our study suggests that previous experience of working with opioids in palliative care settings as well as catastrophic outcomes has an impact on prescribing decisions. This echoes the suggestion that clinicians who are inexperienced in pain management may exhibit fear of opioids,26 although our data indicate that the precise way in which past experience affects current practice is complex.

A strength of the study was the use of qualitative methods of enquiry to enable detailed exploration of GPs’ opinions and experiences. The topic guide ensured that interviews covered similar ground, but the interviewer gave GPs the scope to elaborate on their answers. Also, as the project progressed, the interviewer asked the GPs to discuss issues that early analysis had identified as important. Team work to code the data, develop and refine the coding frame
enhanced the ‘trustworthiness’ of the findings.27,28 The study used verbal self-reported prescribing data, and we are aware that this might not reflect actual prescribing.11 However, because we aimed to identify the reasons behind GPs’ prescribing, self-reporting in the context of extended discussion gave GPs the chance to provide detailed information about their rationale and to express variation in their own practice. We found that it was not helpful to dichotomize GPs simply according to whether they prescribed certain medications or not. Although there were differences in prescribing preferences, simple categorization according to medications normally prescribed masks the individualization of those decisions. Therefore, in order to explore GPs’ perceptions of their actual rather than hypothetical behaviours, we asked them to describe particular examples of their decisions.29 However, we did not collect information about patients’ views and it is possible that they do not concur with those of GPs.

Previous literature suggests that younger GPs are less reluctant to prescribe opioids than older ones38 and that male GPs are more likely to prescribe opioids for non-cancer pain than female GPs.11 The small qualitative nature of our sample means that we did not seek to verify or refute these assertions. However, doctors in our study did identify reasons why older GPs might be less likely to prescribe (older GPs carried ‘baggage’ from the past) as well as reasons why older GPs might be more likely to do so (younger GPs were described as more risk averse).

Although it is important not to underestimate the importance of adverse effects to patients,30 current literature suggests that most adverse effects can be managed with appropriate measures and that fear of such adverse effects should not prevent prescribing of opioids.3,30,31 Our findings suggest that GPs are acutely aware of the need to manage adverse effects and to tailor treatments to individuals but that GPs understand these issues in terms of previous experience. In addition, although recent UK guidance on the treatment of osteoarthritis (a leading source of joint pain) suggests that there is a range of possible management options prior to referral for surgery,32 some GPs see surgery as the only realistic means of treating severe joint pain.

Previous research has shown that GPs underestimate patients’ desire to be involved in decision making about medicines.33 Future work could compare patient and GP views of managing chronic joint pain and explore the degree to which patients would like to be involved in decisions about pharmacological treatments. Enhancement of professional development for GPs may help them to offer more choice to patients presenting with chronic joint pain. Given the strength of feelings and real issues that surround opioid medication yet their reported acceptability to many patients living with non-cancer pain,10 there is an opportunity for greater dialogue about their use in joint pain and other musculoskeletal conditions in primary care.

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Declaration

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References


