Original research

Influences on paramedic prescribing: student and prescriber perspectives

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Abstract

Background: Paramedic prescribing has been permitted in legislation from 2018. In 2019 one of the first cohorts of paramedic prescribers in the country was invited to share their experiences, thoughts and perceptions around the new and evolving role of paramedic prescribing practice.

Aim: To explore the opinions of student and newly qualified paramedic prescribers regarding impact and effectiveness of paramedic independent prescribing on their clinical practice.

Design and setting: A qualitative study was undertaken within the North East of England with a group of experienced paramedics undertaking non-medical prescribing education.

Methods: A focus group and dyad interview were undertaken with a purposive sample of paramedics recruited from a higher education institution providing V300 independent and supplementary prescribing education. The focus group was undertaken with paramedics on the non-medical prescribing (NMP) programme of study. The dyad interview was undertaken with participants once qualified as prescribers, and actively prescribing. The focus group and interview were audio recorded, transcribed verbatim and subjected to thematic analysis to identify key themes.

Results: A total of n = 7 and n = 2 paramedics undertook the focus group and dyad interview, respectively. Paramedics in this sample represented a range of paramedic practice areas. Paramedic NMP students noted four key themes around role, expectations, governance and opportunities and challenges in relation to prescribing practice. The returning sample of paramedics, now practising as prescribers, noted themes of organisational and infrastructure challenges, monitoring of prescribing practice, and the evolution of paramedic roles.

Conclusion: Paramedic prescribing is rapidly expanding and evolving into new clinical areas. As such, careful consideration should be given to not only the resourcing of prescribers as individuals, but to the wider organisational and technological support and structures needed to be in place to allow paramedic prescribers to fulfil their roles, and utilise their advanced practice skills.

Keywords

expanding practice; independent and supplementary prescribing; non-medical prescribing

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Introduction and background

Non-medical prescribing (NMP) is the prescribing activity of healthcare professionals, who are not dentists or doctors, but who are given legal permissions to prescribe medications, appliances and dressings (Cope et al., 2016). The overarching term of NMP includes independent prescribing (IP), supplementary prescribing (SP) and community practitioner nurse prescribers (Royal College of Nursing, 2023). Prescribing governance and legislation has progressed past the original inception of nurse prescribing (SP/IP and community practitioner nurse prescribers) to include pharmacists (SP/IP), physiotherapists (SP/IP), chiropodist/podiatrists (SP/IP), dietitians (SP), diagnostic radiographers (SP) and therapeutic radiographers (SP/IP), with one of the most recent healthcare professionals to include paramedics (SP/IP) (General Pharmaceutical Council, 2022; Health and Care Professions Council, 2022).

In 2005, the Department of Health (2005) identified that prescribing responsibilities for paramedics should be actively explored. Professional advancement of paramedics, and their scope of practice had evolved significantly from transporting patients to hospital, into highly skilled healthcare professionals working in a multitude of settings (Dixon, 2020). In contemporary practice, paramedics have expanded their role, past the traditional acute response profile, to include management of chronic long-term conditions, and non-life-threatening urgent care (Duffy & Jones, 2017). More

recently we have seen the advent of advanced paramedic roles, expanding outside of the ambulance service, and into settings such as acute and urgent care departments and general practice environments (Griffin, 2015).

With an increasing population, an aging population, and more individuals with comorbidities and chronic long-term conditions, there has been significant consideration of hospital avoidance schemes (Collen, 2019). One potential way of reducing unnecessary hospital admissions supported by the NHS is through the development of paramedics who can prescribe, resulting in patients not having to see other healthcare professionals to access medication, and allowing paramedics to work more autonomously in their advanced roles (Sharman, 2015).

Paramedic prescribing was permitted in 2018 following the Human Medicine (Amendments) Regulations (2018), and the completion of a period of extended, advanced training and education at an approved education institution. As with other healthcare professionals, not all paramedics will become prescribers: paramedics are required to be practising at an advanced level, should have a Master's degree level of study (or be working towards this) (Best & Taylor, 2021), and have extensive clinical experience in their intended scope of prescribing practice. They must also be working in an area in which prescribing has been identified as required for patient care. Once this is in place, they may consider undertaking a Health and Care Professionals Council (HCPC) approved prescribing course to gain legal prescribing rights if there is organisational support in place.

Currently, paramedic prescribers can prescribe a significant range of medication from the British National Formulary (BNF), provided this is within their scope of practice (College of Paramedics, 2021b), and accountable to the HCPC. However, they are unable to independently prescribe any controlled drugs (CD) or unlicensed medicines (Health and Care Professions Council, 2021), though they may utilise SP, which requires an agreed, individualised patient clinical management plan. The prescribing of CDs is being considered at present and may change in the future (Flavell, 2021). With paramedic prescribing advancing, and supporting a diverse range of clinical settings, it is paramount that the views and opinions of paramedics involved in this clinical development are considered, alongside paramedics' effectivity and impact on patient care.

Aim

To explore the opinions of student and newly qualified paramedic prescribers regarding impact and effectiveness of paramedic IP on their clinical practice.

Methods

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An interpretive qualitative study, utilising a focus group of NMP paramedic students, and a dyad interview with returning participants once qualified as V300 prescribers, was employed. Participants were recruited using purposive sampling, allowing for a sample to be obtained with desired features and experiences (Mason, 2002; Ritchie et al., 2014). All paramedics who were enrolled on the V300 programme within the host university were invited to participate (n = 7) in an initial focus group, and a follow-up focus group at 6 months post annotation as a V300 paramedic prescriber with the HCPC. Focus groups were initially planned for both data collection activities due to their ability to generate data which represents narratives, constructed through discussion, and sharing of experience (Lewis & McNaughton Nichols, 2014). Due to complexities brought about by the COVID-19 pandemic, only two original participants returned for the planned follow-up focus group. As such, this was conducted as a dyad interview. While non-traditional, dyad interviews can gather valuable data about shared experiences of people with specific experiences (Kvalsvik & Øgaard, 2021; Morgan et al., 2013).

All participants had met the regulatory requirements to undertake a programme of prescribing education. An information sheet was provided in advance, as well as verbal information. Written informed consent was obtained prior to data collection, and participants were aware they could withdraw from the study at any point.

An initial focus group guide was devised from the literature and clinical practice to explore topics including role, practice areas, responsibilities, expectations of the prescribing programme, and multi-professional learning, expectations of how prescribing rights may change their practice, barriers, and facilitators to V300 in terms of access and completion of the course, and implementation of prescribing in clinical practice.

The focus group and interview were facilitated by senior members of the research team with experience in qualitative data collection methods (AH and CP). Digital audio recording was utilised to allow for verbatim transcriptions, inclusion of anonymised quotations to support clarity in conceptualisation of themes and maintenance of descriptive validity and rigour (Maxwell, 2002; Moule et al., 2017). The dyad interview required an online meeting due to COVID-19 restrictions. An ethical amendment was sought and approved for this change in operationalisation of the study protocol. Microsoft Word™ software was utilised to support immediate, secure transcription of online meetings outside of the available meeting software capabilities. The resulting transcripts were subjected to accuracy checks, and anonymised.

The data were subjected to thematic analysis using a 6-step process of familiarisation, initial code generation, search for themes, review of themes, naming and reporting (Braun & Clarke,

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2006). Emerging themes were analysed and coded by the research team (AH, CP and JD) to support trustworthiness and rigor.

Reflexivity

This study was undertaken by prescribing practitioners, and educators who have extensive knowledge of the multiple professional roles and areas where NMP education and practice may occur. This group included clinical academics, a subject lead for prescribing, and a clinical lecturer in NMP. This brought an expert critical analysis of the data. Thematic analysis offered an audit trail of analysis, ensuring that the findings were grounded in the data gathered and not pre-conceived notions.

Results

Participant profile

A total of n = 7 paramedics took part in the focus group (as student prescribers). Of these, 71% were male (n = 5) and 29% (n = 2) female. The time in their current post ranged from 8 months to 12 years. Of these paramedics, n = 2 participants returned to undertake dyad interview (as qualified, practising paramedic prescribers). Both returning paramedics were male (Table 1).

Table 1.

Participant profiles.

Participant	Job title	Time in current post	Location of post	Sex
P1	Clinical practitioner	8 months	Urban	Male
P2	Advanced practitioner	3 years	Urban and rural	Male
P3	Advanced paramedic practitioner	18 months	Urban	Female
P4	Advanced practitioner	12 years	Urban and rural	Male
P5	Advanced practitioner	10 years	Urban and rural	Male
P6	Advanced practitioner (primary care)	2 years	Urban	Male
P7	Advanced practitioner	10 months	Urban	Female

Focus group: student prescribing paramedics

The focus group with paramedics while student prescribers highlighted themes around role (restriction and evolution), prescribing expectations, prescribing governance, and opportunities and challenges (Table 2).

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Table 2.

Focus group emerging themes.

Theme	
1	Role (restriction and evolution)
2	Prescribing expectations
3	Prescribing governance
4	Opportunities and challenges

Role (restriction and evolution)

For the student paramedic prescribers in this study, roles varied, and represented the range of expanding paramedic practice, including emergency ambulance service, rapid response, primary care (general practice) and urgent care hospital settings. Their daily work included face-to-face consultations in a healthcare setting, remote telephone consultations and home visits. No participants reported working in critical care environments as advanced critical care practitioners or advanced clinical practitioners.

There appeared to be a consensus that prescribing was a natural evolution of their role, and it was felt that more advanced or evolving roles could not be fulfilled without prescribing:

> P6: I think for us in primary care, you can't not be a prescriber. You can't function.

They displayed a sense of frustration at being restricted in practice to using patient group directions (PGDs), and that they were often not useful within their area of practice. They believed that in some cases they were aware of better treatment options, however they were unable to give medication they thought suitable as it was not listed within the PGDs they had authorisation to use:

> P1: when there could be a better drug, you just can't give them it because you haven't got a PGD for that drug or you're not allowed to give it for that presentation.

This suggests the participants felt prescribing was going to be useful and facilitative in practice, as they felt that PGDs were restrictive: the patient's condition could (in their opinion) be treated more appropriately when they received their prescribing annotation. This echoes Bedson and Latter (2018) who noted that paramedic prescribers found PGDs restrictive, and at times did not echo current guidance, included antibiotics outside their regional antimicrobial guidance. While a cause of frustration, PGDs are designed to have restrictions in place to ensure safe and appropriate use in line with the premise of PGDs only being used for people who meet certain clinical parameters.

Prescribing expectations

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The participants in this study voiced concerns that colleagues might not understand their prescribing role, or the potential limitations in their prescribing practice. Alongside this, there were concerns about high and unrealistic expectations from management, leading to strained relations. There was a concern that there was a lack of managerial understanding of the boundaries of prescribing in line with their scope of practice, competence and confidence.

> P4: I'll ring [you] because the APs [you] can prescribe now. And they'll just expect us to tootle along and issue a prescription. And then when they don't get what they want – when they don't get it, two things happen. A) they stop using you and B) your group of prescribers become useless because they go round telling everybody they're useless.

> P1: But they seem to be under the understanding that if you're a prescriber then you can prescribe anything from the BNF.

This concern, however, varied between participants working within the ambulance service settings, versus those in primary or urgent care hospitals.

Prescribing governance

There was concern from all participants regarding the lack of formal frameworks of prescribing governance in their areas of work. This led to a sense that the clinical settings wanted prescribing practitioners, but the deficits in infrastructure meant that prescribers were not able to prescribe, and may lead to issues of staff attrition.

> P1: There's been no draft documents, there's been no draft policies, there's been – we've got to start somewhere, but how long do you wait?

> P4: we've had prescribers working for the organisation for four years now and nothing seems to have developed.

Some thought that due to the lack of frameworks, paramedics would be unable to carry out their new role due to restrictions and policies not being in place, they felt that this may lead to practitioners leaving places of work for alternatives with more established non-medical governance and practice pathways.

> P4: At the minute, we just cannot prescribe. We just cannot prescribe within [the setting] and we've got no timeframe as to when that is going to be any different.

> P1: I think people are not getting what they want out of [the setting] so they're going to go elsewhere.

Opportunities and challenges

There was consensus that becoming a prescriber was beneficial for paramedics, supporting their ability to make robust clinical decisions, provide better care to their patients, and remove limitations placed on their practice by PGDs.

> P4: it's such a golden opportunity – not just in terms of personal development and also being advocates for the patient, being able to provide better care for patients, but also in terms of raising the profile for the profession.

There were concerns, however, regarding the clinical supervision and support that would be available to them upon qualification. Within this, participants discussed what support they perceived as being required such as peer support, a supervisory framework to follow. There also appeared to be varying levels of confidence regarding what support will be available to them across clinical settings.

> P4: but there's not going to be any regular meets as far as I'm aware, to say we've done this or we've had that. So I am a little worried.

> P6: it's very easy in the general practice just to knock on another door, speak to a GP and get some advice. And they're all very, very open to that.

In addition to the varying degree of support between clinical areas, the participants demonstrated an acute awareness of the accountability for their practice, and rapidly expanding facets of care. Particular attention was paid to remote prescribing, with some participants self-limiting their engagement in this.

> P4: using prescribing opens you up to much more litigation and much more accountability. The responsibility is massive.

> P1: and as a relatively new prescriber as well, I would be very reluctant to do any kind of remote prescribing.

> P5: You can remote prescribe. Paramedics can remote prescribe, it's in the guidance, but your organisation has to accept that responsibility. We don't know what's going to happen.

Dyad interview findings: as prescribing paramedics

The dyad interview consisted of two returning participants who were now established in their prescribing practice. One was working in primary care, and the other in an ambulance service. This interview highlighted themes of organisational and infrastructure challenges, monitoring prescribing practice, and the evolution of role (Table 3).

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Dyad interview emerging findings.

Theme	
1	Organisational and infrastructure challenges
2	Monitoring prescribing practice
3	Evolution of role

Organisational and infrastructure challenges

Despite being supported to undertake the prescribing qualification, there appeared to be issues in practice with being able to gain organisational prescribing permissions following annotation on the HCPC register. One area of difficulty was with the electronic prescribing system. It appeared that for some, despite the drive and willingness to have prescribers in practice, there was a lack of process regarding infrastructure and technology review to allow them to use their prescribing skills.

> P1: it's taken, the work to get me to be able to do it because of [the electronic system] was unimaginable. My practice manager and one of the admin leads were ringing . . ., they were ringing . . . they were ringing the [electronic system] trainers. Nobody knew why I couldn't do it. They were looking at all the settings and they just couldn't work it out to the point where they're actually rang [system team] and spoke to them, who actually said, we don't know either.

> P2: it was over a year before I could electronically prescribe and I'm still the only person who managed to do it with them because it took them so much effort to do it they didn't bother doing anybody else.

> P2: so even though I think at least half of the paramedics that work are prescribers we're all having to get other people to do the prescriptions even though I could literally do it myself quite easily.

Monitoring prescribing practice

Both participants discussed being aware of informal and formal monitoring of their prescribing practice, and high levels of support from colleagues regarding prescribing questions or issues. The concerns raised around support and supervision as student prescribers did not seem to materialise.

> P1: the practice manager has always said you know the doors . . . if you got a question you come and ask, if you want something you come and ask me for it, if I thought there was something I wasn't sure about I will go ask.

> P1: I didn't realise how frequently you got audited. So when I was here first time round and had my appraisal about six months after I got prescribing, I got pulled in via a senior partner and practice manager said . . . . Your prescribing is all absolutely fine . . . it's a bit Big Brother's watching you but they're reviewing everything that I do to make sure that it's been done properly.

Evolution of role

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There was a sense that while their roles were evolving, and they celebrate the expansion of paramedic practice, there was frustration among peers about the limitations placed on paramedic prescribing. Specifically the current scope of legal prescribing practice in relation to CDs was seen as a tension.

> P2: I've been a non-medical prescriber for two years and I'm still not allowed to prescribe controlled drugs.
>
> P1: discussing again why I'm using particular drugs, why have I chosen to use this and not that, if I could prescribe a controlled drug would I use a controlled drug.

The discussion raised that at times there was misunderstanding from other prescribing colleagues such as nurses and GPs who believed they had the same prescribing rights as other prescribing professionals: believing they (the paramedic prescribers) could independently prescribe CDs. While this caused frustration, solutions could be found in some cases. Specifically noted was prescribing for palliative care patients. P1 described how within general practice, SP was used, crafting a bespoke clinical management plan for the patient, while being able to independently prescribe the required CDs. As such, the participants appreciated the value of SP as a paramedic.

> P1: I'm a big advocate for supplementary prescribing, because it can work if you're in the right circumstances.
>
> P2: I could see the value in it . . . trying to get it right the first time without having to go to anybody else to get those medications, you know, is a challenge and obviously supplementary is one way of doing.

Discussion

Paramedic prescribing remains relatively new, but has expanded rapidly from its inception in 2018. As of May 2022, 1316 paramedics hold IP annotation, and 1287 hold SP annotations on the HCPC register (Health and Care Professions Council, personal communication, 13 January 2023). In tandem to this, there has been a rapid expansion of paramedics employed in general practice (Edwards et al., 2020) and urgent care settings. This serves to not only advance patient care, but also the profession as a whole, as their scope of working environments evolves (NHS England, 2016). Though advancement is seen in terms of clinical roles and practice settings, research into paramedic prescribing is in its infancy.

This study echoes Stenner et al. (2021) and Best and Taylor (2021) in participant profiles, demonstrating that paramedic prescribing is advancing in primary and urgent care settings. Stenner et al. (2021) undertook a qualitative study with paramedic prescribers in 2019, around one year after the introduction of paramedic prescribing. Stenner et al. (2021) found that early adopters in

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paramedic prescribing practice worked in a wide variety of clinical practice environments including primary care, hospital and out-of-hospital services. While a positive expansion, the current study demonstrates that the frustration found by Stenner et al. (2021) regarding CD prescribing remains, highlighting the perceived negative impact this has in practice, and in terms of delays to patient care. While challenging, this frustration may be compounded by the dearth of literature and policy to support paramedic SP. A focus is seen on IP, with little mention or exploration of SP in governance, discussion or policy. This is significant, as with role expansion into general practice and hospital based advanced roles, SP can be a useful tool to support the appropriate use of CDs for specific patients and presenting conditions in line with a legal clinical management plan (Health and Care Professions Council, 2021). While it is recognised that this may not suit all clinical areas, it may be a viable option for some paramedic prescribers. Changes to legislation and practice regarding CDs are under consideration following recommended changes to the Misuse of Drugs Regulations 2001 by the College of Paramedics (2021a). This proposes that five CDs (in specific forms) are added to the medicines entitlements of paramedic independent prescribers (Rovardi, 2021). However, at the time of writing, this action had not been agreed or ratified in law.

In addition, this study demonstrates the difficulties noted by Stenner et al. (2021) in terms of operational and technical systems hindering early adopters of paramedic prescribing, such as IT systems not recognising paramedic prescriber numbers or systems permissions not being set up. It appears that since Stenner et al.'s (2021) study, little has progressed regarding technical support, with participants in the dyad interview reporting the same types of IT systems issues several years later. While traditionally, prescribing in acute care settings has been paper based (such as medication charts, FP10 prescriptions) the digitalisation, and a move to a paperless system has increased the reliance on electronic prescribing. Historically set to allow nurses to administer medication, and now generate prescriptions (when qualified to do so), consideration needs to be given to the software and infrastructure to allow rapid set up of a range of prescribing professions, and to recognise any limitations or permissions associated with their specific professional entitlements.

In some respects, this study shows that broader issues persist in practice regarding embedding prescribing for any new professional group. Parallels can be drawn in this study with the implementation of nurse prescribing historically in relation to deficits in infrastructure required to prescribe, and shared understanding of new roles. In an early evaluation of extended formulary independent nurse prescribing in 2005, the Department of Health found that while the nurse independent prescribers became less dependent on doctors, and felt increased autonomy and satisfaction, only 5% of the group could access electronic prescribing, despite believing it would improve their practice (Latter et al., 2005). This acts as a precursor to paramedic prescribing,

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however it has not influenced organisational foresight regarding permissions and technology needed to make best use of the evolving prescribing workforce. Similarly, Carey et al. (2009) found similar issues of misunderstandings between professionals regarding scope of practice were present in relation to nurse prescribing in specialist children's settings. It appears that lessons identified historically have not translated to an awareness of the need for a robust strategy for embedding new professions in prescribing practice.

Recommendations

This study proposes three key recommendations for practice and research.

1. Research should be conducted into interprofessional understanding of the full remit of prescribing professionals' roles and the variance in legal contexts they practice within.
2. Practice discussions should be held to raise the positive position SP can have in paramedic prescribing.
3. Organisations employing paramedic prescribers must ensure they are supported with appropriate technology to make best use of the prescriber's abilities.

Limitations

The study was limited by the COVID-19 pandemic, which led to a mandated pause in the study. On recommencement, difficulty was found in arranging the second focus group due to restrictions and pressures on the participants within clinical practice. As such, the returning participants undertook a dyad interview. Additionally, this study aimed to look at impact and efficacy on practice, however due to the context of the pandemic, and delays in obtaining prescribing systems access, the paramedics in this study were not able to fully explore this. As such, barriers and impact are noted, but more in terms of barriers to their prescribing practice.

The participants were from one geographical region, so some of the issues explored may not be transferable to other geographical areas. As such, participants were employed by a limited number of organisations, and therefore may not be fully representative of other paramedic services across the United Kingdom.

Conclusion

As paramedic practice and prescribing practitioners advance, it is evident that challenges are still present. This study demonstrates that the variation between prescribing professionals with a V300 qualification in terms of legal entitlements may cause interpersonal tensions or confusion in teams, as paramedic and nurse prescribers (for example) will hold different permissions and scopes of practice. It is paramount that teams expanding to include a range of prescribing professionals have

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an awareness of the legal parameters placed upon those individuals. Issues with infrastructure need to be attended to. Careful consideration should be given to the wider organisational and technological support and structures needed to be in place to allow paramedic prescribers to fulfil their roles and demonstrate their advanced clinical skills. In addition, practice needs to recognise the expanding roles and support appropriately. The advancement of paramedic practice, and the utilisation and uptake of paramedic prescribers in practice should be celebrated. However, there is a requirement that employers and organisations recognise the specific legal circumstances surrounding their prescribing rights. In addition, they need to have appropriate support, governance and mentorship that all prescribing professionals require. The complexities raised in this study regarding professional role, organisational infrastructure and medicines entitlements needs stringent consideration and support by employers.

Author contributions

All authors undertook active data collection, analysis and preparation of the article. CP acts as the guarantor for this article.

Conflict of interest

None declared.

Ethics

Ethical approval was granted by Northumbria University (ref: 13484).

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References

Bedson, A., & Latter, S. (2018). Providing medicines in emergency and urgent care: A survey of specialist paramedics' experiences of medication supply and views on paramedic independent prescribing. *British Paramedic Journal, 3*(3), 1–9.

Best, P., & Taylor, V. (2021). Paramedic prescribing: Implementation in practice. *Journal of Paramedic Practice, 13*(1), 14–23.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101.

Carey, N., Stenner, K., & Courtenay, M. (2009). Views on implementing nurse prescribing in a specialist children's hospital. *Nurse Prescribing, 7*(5), 205–210.

College of Paramedics. (2021a). *Paramedic prescribing update*. https://collegeofparamedics.co.uk/COP/News/paramedic_prescribing_update.aspx.

College of Paramedics. (2021b). *Practice guidance for paramedics: Independent and supplementary prescribing*. https://collegeofparamedics.co.uk/COP/News/practice_guidance_for_paramedic_supplementary_and_independent_prescribers.aspx.

Collen, A. (2019). Is there a future for independent prescribing by advanced paramedics? *Journal of Paramedic Practice, 8*(2), 60–62.

Cope, L., Abuzour, A., & Tully, M. (2016). Nonmedical prescribing: Where are we now? *Therapeutic Advances in Drug Safety, 7*(4), 165–172.

Department of Health. (2005). *Taking healthcare to the patient: Transforming NHS ambulance services*. http://aace.org.uk/wp-content/uploads/2011/11/Taking-Healthcare-to-the-Patient-Transforming-NHS-Ambulance-Services.pdf.

Dixon, M. (2020). The developing role of the paramedic prescriber. *Journal of Prescribing Practice, 2*(2), 98–101.

Duffy, I., & Jones, C. (2017). Exploratory study into the views of paramedics on paramedic prescribing. *Journal of Paramedic Practice, 9*(7), 296–301.

Edwards, J., Coward, M., & Carey, N. (2020). Paramedic independent prescribing in primary care: Seven steps to success. *Journal of Prescribing Practice, 2*(6). https://www.prescribingpractice.com/content/better-practice/paramedic-independent-prescribing-in-primary-care-seven-steps-to-success/.

Flavell, B. (2021). Legal aspects of prescribing. *Journal of Paramedic Practice, 9*(7), 296–301.

General Pharmaceutical Council. (2022). *Pharmacist independent prescriber*. https://www.pharmacyregulation.org/education/pharmacist-independent-prescriber.

Griffin, D. (2015). Paramedic prescribing: A potion for success or a bitter pill to swallow? *Journal of Paramedic Practice, 7*(5), 234–240.

Health and Care Professions Council. (2021). *Controlled drugs are subject to additional legal controls as they carry a higher risk of being misused or causing harm*. https://www.hcpc-uk.org/standards/meeting-our-standards/scope-of-practice/medicines-and-prescribing-rights/controlled-drugs/.

Accepted

Health and Care Professions Council. (2022). *Our professions' medicines and prescribing rights*. https://www.hcpc-uk.org/standards/meeting-our-standards/scope-of-practice/medicines-and-prescribing-rights/our-professions-medicines-and-prescribing-rights/.

Human Medicine (Amendments) Regulations. (2018). 8 C.F.R. §3.

Kvalsvik, F., & Øgaard, T. (2021). Dyadic interviews versus in-depth individual interviews in exploring food choices of Norwegian older adults: A comparison of two qualitative methods. *Foods, 10*(6), 1199.

Latter, S., Maben, J., Mayall, M., Courtnay, M., Young, A., & Dunn, N. (2005). *An evaluation of extended formulary independent nurse prescribing: Executive summary*. Southampton, UK. University of Southampton School of Nursing and Midwifery on behalf of Department of Health.

Lewis, J., & McNaughton Nichols, C. (2014). Design issues. In J. Ritchie, J. Lewis, C. McNaughton Nichols, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 47–76). SAGE Publishing.

Mason, J. (2002). *Qualitative research*. SAGE Publishing.

Maxwell, J. (2002). Understanding and validity in qualitative research. In M. Huberman & M. Miles (Eds.), *The qualitative researcher's companion* (pp. 37–64). SAGE Publishing.

Morgan, D., Ataire, J., Carder, P., & Hoffman, K. (2013). Introducing dyadic interviews as a method for collecting qualitative data. *Qualitative Health Research, 23*(9), 1276–1284.

Moule, P., Aveyard, H., & Goodman, M. (2017). *Nursing research: An introduction*. SAGE Publishing.

NHS England. (2016). *Summary of the responses to the public consultation on proposals to introduce independent prescribing by paramedics across the United Kingdom*. https://www.england.nhs.uk/wp-content/uploads/2016/02/Paramedics-summary-consult-responses.pdf.

Ritchie, J., Lewis, J., Elam, G., Tennant, R., & Rahim, N. (2014). Designing and selecting samples. In J. Ritchie, J. Lewis, C. McNaughton Nicholls, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 77–108). SAGE Publishing.

Rovardi, D. (2021). *Independent prescribing of controlled drugs by paramedics*. https://collegeofparamedics.co.uk/COP/News/Independent_prescribing_of_controlled_drugs_by_paramedics.aspx.

Accepted

Royal College of Nursing. (2023). *Non-medical prescribers*. https://www.rcn.org.uk/get-help/rcn-advice/non-medical-prescribers.

Sharman, A. (2015). Independent prescribing: A journey to provide the best possible care. *Journal of Paramedic Practice, 7*, 228.

Stenner, K., Van Even, S., & Collen, A. (2021). Paramedic independent prescribing: A qualitative study of early adopters in the UK. *British Paramedic Journal, 6*(1), 30–37.

Accepted