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Understanding the roles and work of paramedics in primary care

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ABSTRACT:

Introduction: This study aimed to explore the clinical roles of paramedics in primary care, focusing on educational attainment and clinical experience. The objective was to analyze the current scope of paramedics' roles within this setting and investigate associations between clinical exposure, education levels, and professional capabilities.
Methods: Surveys were distributed via the College of Paramedics to primary care paramedics across the UK, yielding 341 responses (male=215). Respondents primarily hailed from England (90%), with minor contributions from Northern Ireland (1.7%), Scotland (4.6%), and Wales (2.9%). Job titles, education levels, clinical supervision availability, and statistical analyses were conducted to examine relationships between clinical exposure, education, independent prescribing, clinical presentations, and examinations. Qualitative data analysis captured paramedics' challenges regarding further education and clinical supervision.
Results:Significant variability was observed in job titles, education levels, and clinical supervision among primary care paramedics despite attempts at standardization. Statistical analyses indicated correlations between clinical exposure, education levels, independent prescribing capabilities, encountered clinical presentations, and performed examinations. Qualitative findings revealed frustrations due to limited access to further education and clinical supervision.
Conclusion:This study provides insights into the demographics and diverse clinical roles of primary care paramedics. Recommendations advocate for reforms in education, support structures, governance, and legislation to enable paramedics to maximize their professional capabilities in the primary care setting.

Introduction

In recent years, there has been a notable trend of paramedics in the United Kingdom (UK) shifting from traditional roles in ambulance services to employment in primary care settings. This shift has been influenced by multiple factors intertwined within the healthcare landscape. Changes in healthcare accessibility and societal reliance on ambulance services have led to an increased volume of urgent and primary care-related cases attended by paramedics. To adapt to the evolving demands of emergency calls (999 calls), the education and training of paramedics have evolved beyond

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emergency presentations. Paramedic pre-registration education now encompasses a broader spectrum of skills, moving away from strictly protocol-based training towards a more holistic approach to patient care across different age groups. This undergraduate education equips paramedics to function as generalist clinicians in diverse clinical settings, thereby paving the way for their transition out of the ambulance service. However, alongside this educational expansion, factors such as inadequate managerial support and limited career advancement opportunities within the ambulance service have spurred paramedics to seek alternative employment options that offer further professional development and a better work-life balance.

This transition of paramedics into primary care comes at a time when the primary care workforce is facing a shortage of general practitioners (GPs). Paramedics view this setting as a suitable fit for their capabilities, presenting an opportunity to contribute meaningfully to healthcare delivery in primary care teams. The National Health Service (NHS) workforce policies have recognized and embraced the inclusion of paramedics in primary care, with associated funding available for practices employing paramedics, among other healthcare professionals, in England. Previous research has underscored the necessity of robust support mechanisms for paramedics transitioning into the primary care workforce, including structured formal education, clinical supervision, and integration into the primary care team. This shift aims to bolster clinical capacity within primary care teams to address the shortages resulting from the lack of GPs. To facilitate this transition, Health Education England (HEE) outlined a framework, albeit applicable only in England, guiding paramedics in their transition to roles in primary care.

Objective of Research

This research aims to fill a critical knowledge gap by investigating and understanding the roles and perceptions of paramedics within the primary care setting. Specifically, the study seeks to achieve the following objectives:

1. Gain insights into the educational backgrounds, professional experiences, remuneration, prescribing authority, and clinical supervision of paramedics in primary care.
2. Explore and analyze the diverse scope of roles undertaken by paramedics working within the NHS primary care sector.
3. Investigate the perceptions and views of paramedics regarding their contributions to the primary care team and healthcare system.

Methods

The research methodology involved conducting an online survey, following a predefined study protocol registered with OSF Registries, targeting paramedics employed in primary care across England, Northern Ireland, Scotland, and Wales. The survey employed a mixed-method approach, combining qualitative and quantitative questions to align with the multifaceted study objectives. Collaborations with relevant stakeholders and a patient and public involvement group facilitated the development of the survey, ensuring its alignment with the research goals. A sample size of 306 respondents was estimated based on the approximate number of paramedics working in primary care roles across the UK. Data collection spanned from September to November 2021 and was disseminated through the College of Paramedics and various social media platforms. Compensation in the form of a £10 Amazon e-voucher was offered to respondents for their time and participation.

Data Analysis

The data analysis phase involved a comprehensive approach. Free-text responses underwent in-depth semantic-level thematic analysis using NVivo V.12 software, led by one of the researchers. Additionally, quantitative data were subjected to descriptive statistics, including mean, standard deviation, and frequencies, followed by appropriate statistical tests such as the $\chi 2$ test of independence, Kruskal-Wallis Test, Mann-Whitney test, and Spearman's r correlation using IBM SPSS Statistics, V.28. To counteract issues associated with multiple comparisons, a Bonferroni correction was applied where necessary. The analysis was conducted by multiple researchers independently, with subsequent merging and interpretation of qualitative and quantitative findings. During interpretation, the data were contextualized using existing conceptual frameworks to enrich and synthesize complementary results.

Results

In our study, a total of 341 responses were collected, with the vast majority (90.6%) originating from paramedics employed in primary care settings in England. These respondents constituted approximately 33% of the combined population of paramedics in England and Wales separately, offering valuable insights into their demographics and professional experiences. The educational profile revealed that more than half (52%) had completed education equivalent to postgraduate certificates, emphasizing a widespread need for additional educational support to thrive in the primary care environment. However, respondents expressed challenges due to insufficient protected study time and inadequate financial support from employers.

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Moreover, Health Education England's (HEE) roadmap, devised to delineate roles, encountered issues due to ambiguous requirements and limited adoption by primary care employers. Additionally, clinical supervision, received by 85.6% of respondents, displayed significant variations in quality and structure, which impacted its overall effectiveness.

Regarding the clinical work undertaken, respondents were queried about their engagement with a spectrum of clinical presentations and the extent to which they performed clinical examinations outlined in HEE's Roadmap. Our analysis revealed correlations between various factors such as length of time as a paramedic, duration of primary care experience, hours worked in primary care, highest qualification, job title, and prescribing status concerning both clinical presentations observed and clinical examinations conducted.

In terms of blood tests, the initiation and interpretation by paramedics in primary care were observed to be positively influenced by prescribing status, receiving clinical supervision, having a higher salary, working full-time hours, and possessing higher levels of education. However, these outcomes largely failed to achieve statistical significance. Notably, there was no discernible correlation between the request and interpretation of blood tests and the duration of one's tenure as a paramedic or their duration of primary care experience.

Discussion

The study's findings affirmed the existence of considerable variance in job titles, clinical responsibilities, and prerequisites among paramedics working in primary care. This variance contributed to role ambiguity and a lack of recognition within the primary care sector. Factors such as tenure, higher education levels, and independent prescribing status were correlated with an expanded scope of practice among paramedics. Interestingly, paramedics with lower educational qualifications tended to handle emergency cases more frequently. Moreover, paramedics working fewer hours in primary care often attended emergency presentations more frequently, potentially influencing workforce capacity but offering limited development in primary care clinical skills. Some paramedics expressed dissatisfaction with the underutilization of their clinical expertise in primary care, citing frustrations related to practice restrictions, workload pressures, and inadequate understanding of their capabilities within primary care teams.

Strengths and limitations of the study: This research marks the pioneering national survey focusing on the role of paramedics within the UK's primary care landscape. Its relevance extends internationally, offering insights applicable to countries like Australasia and Canada where paramedics play comparable roles (Ref. 26). However, the survey's distribution through the College of Paramedics and social media platforms might have limited access for paramedics not affiliated with the professional body or those not actively engaged on social media. Consequently, the respondents, though significant, represent only about one-third of the total paramedic workforce in primary care, thereby restricting the generalization of findings to the entire paramedic population in this setting.

Notably, participation from Northern Ireland and Scotland was notably lower, possibly due to a smaller paramedic workforce in these regions or a lack of inclusion of the paramedic role in official workforce data (Ref. 27, 28). Despite this, the clinical practices of paramedics displayed consistency across the UK. However, acknowledging potential underrepresentation of paramedics from these regions remains critical.

Employing data triangulation within this cross-sectional survey facilitated an exploration of the varied roles undertaken by paramedics in primary care. Additionally, free-text responses provided deeper insights into the support mechanisms and challenges encountered by paramedics. Yet, in interpreting the quantitative data, numerous statistical tests were conducted, albeit with adjustments to control errors. Further research using diverse variables could bolster and fortify these findings.

The survey was conducted amid the ongoing COVID-19 pandemic, and its potential impact on these results remains uncertain. Future surveys could delve into this aspect to comprehend any pandemic-induced variations.

Recommendations: Based on the study's outcomes, several recommendations emerge:

Education and Support:

- Standardization of education and training requisites for paramedics in primary care.
- Implementation of structured clinical supervision frameworks within primary care settings.
- Provision of support to employers to maximize the paramedic's efficacy in primary care.

Governance:

- Standardization of job titles, remunerations, and role descriptions to ensure recognition of paramedics within the primary care team and by patients.
- Establishment of a universal scope of roles for paramedics in primary care, applicable across all nations.
- Creation of transparent career pathways to enhance retention and job satisfaction among paramedics in this setting.

Legislative Changes:

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- Amendments to legislation to support independent prescribing of controlled medications by paramedics.
- Authorization for paramedics to issue Statements of Fitness for Work.

Conclusion: As the pioneering survey on paramedics in primary care across the UK, this study delineates the demographic spectrum of paramedics in this domain, alongside the prevalent clinical presentations and examinations conducted by this workforce. It also emphasizes the connections between paramedics' clinical exposure, educational levels, independent prescribing capabilities, and the extent of clinical presentations and examinations. These insights are vital not only for policymakers but also for primary care employers intending to recruit or train paramedics in this practice setting.

REFERENCES

1. Eaton G, Wong G, Williams V, et al. Contribution of paramedics in primary and urgent care: a systematic review. Br J Gen Pract 2020;70:e421–6.
2. Wankhade P. Cultural characteristics in the ambulance service and its relationship with organisational performance: evidence from the UK. In: Does culture matter track. Nottingham: PAC Conference, 2010.
3. Eaton G, Mahtani K, Catterall M. The evolving role of paramedics - a NICE problem to have? J Health Serv Res Policy 2018;23:193–5
4. College of Paramedics. Paramedic curriculum guidance. 5th ed. Bridgwater: College of Paramedics, 2019. https:// collegeofparamedics.co.uk/COP/ProfessionalDevelopment/ Paramedic_Curriculum_Guidance.aspx
5. 5 Beldon R, Garside J. Burnout in frontline ambulance staff. JPP 2021;14:6–14.
6. Mahtani KR, Eaton G, Catterall M, et al. Setting the scene for paramedics in general practice: what can we expect? J R Soc Med 2018;111:195–8.
7. Marchand C, Peckham S. Addressing the crisis of GP recruitment and retention: a systematic review. Br J Gen Pract 2017;67:e227–37.
8. Eaton G, Wong G, Tierney S, et al. Understanding the role of the paramedic in primary care: a realist review. BMC Med 2021;19:145.
9. NHS England. The NHS long term plan. London: NHS England, 2019
10. NHS England. General practice forward view. London: NHS England ,2016
11. NHS England. Supporting general practice in 2021/22. London: NHS England, 2021.
12. NHS Confederation. Supporting population health ment :workforce recruiting paramedic practitioners through the additional roles reimbursement scheme (ARRS), 2021. Available: https://www.nhsconfed.org/-/media/Confederation/Files/Publications/Documents/ Paramedic-practitioners-ARRS.pdf [Accessed 20 Jul 2022].
13. Health Education England. First contact practitioners and advanced practitioners in primary care: (musculoskeletal) a roadmap to practice. London: Health Education England, 2021.