

A survey of the current UK Physician Associate educator workforce and recommendations for training programs and provider organisations.

Abstract

Introduction: Nationally there are 37 Physician Associate (PA) training programs with limited knowledge of the educators involved, their training and specific needs.

Method: An online questionnaire was sent to PA educators in all UK training programs requesting information on: academic title and responsibilities, clinical and non-clinical background, education and qualifications prior to becoming a PA educator, formal and informal training received in the role, and insights into career progression.

Discussion: The questionnaire highlighted five specific areas that should be specific recommendations for UK training programs to support PA educators, alongside existing guidance. These centered on academic and leadership development, clinical engagement, student support, and pedagogical research.

Conclusion: We believe that implementing these recommendations across training programs will improve the opportunities for all those delivering PA education and consequently improve the offering to the students undertaking PA studies programmes.

Keywords

Educator Development; Faculty Development; Clinical Education

Introduction

Escalating demand for healthcare services, coupled with a shortage of staff, has led to the introduction of Physician Associates (PAs) into the NHS workforce. Following the pilot sites, the first United Kingdom (UK) PA university training programs were established in 2008¹ taking life science graduates onto, mostly, two-year programs of study. There are currently 37 training programs running across the UK with the majority being at masters level². Despite the number of

universities offering training, there remains a gap in research around PA educators, particularly their development and support.

The 2021 census report published by the Faculty of Physician Associates (FPA), revealed that 9% of surveyed, qualified, PAs held positions as PA educators in university settings³, up from 8% in 2020⁴. While this indicates a growing PA academic workforce there is currently no research on the roles they are undertaking, their skills and training, and the PA educator mix with other healthcare professionals at UK higher education institutions (HEIs).

The Academy of Medical Educators (AoME) has described professional standards for individuals responsible for the education of doctors, dentists, and veterinary surgeons in the UK⁵. The framework outlines core values and practical domains, categorised by increasing levels of responsibility, to establish expectations and support educator development. Whilst applicable to PA educators, the existing guidance is targeted at medical, dental, and veterinary education, and thus tailored guidance for PA educators may offer more profession specific insights.

In the United States of America (USA) the Physician Assistant Education Association (PAEA) has produced a framework of PA educator competencies which cover a career in academia from novice to expert⁶. This framework details six core competencies which are essential to all clinical educators and include teaching, learner-centeredness, interpersonal and communication skills, professionalism, and role-modelling. The framework also outlines four specialised competencies, essential for faculty with additional roles, emphasising program development and leadership. Its purpose is to serve as a reference document, guiding the necessary skills for specific roles and promoting faculty development to enhance student learning, however, the framework does not specify the methods for acquiring these competencies.

Analysing data collected from PA educators at HEIs throughout the UK, we investigated their clinical responsibilities, degree qualifications, academic training, and career advancement, utilising the output to formulate guidance for UK PA schools to support educators and students.

Method

This study involved an online questionnaire with data analysis utilising a primarily quantitative approach. The research team constructed a Google Forms questionnaire using existing guidance from the PAEA, and AoME, to develop the key themes. The questionnaire consisted of twenty-two multiple choice questions, including questions regarding academic title and responsibilities, clinical or non-clinical background, training and qualifications prior to becoming a PA educator, formal and informal training received in the role, and insights into career progression. Following some questions a free text prompt was provided to enable more information to be gathered, for example on the nature of any additional training undertaken.

The research participants were individuals engaged in PA education within a UK HEI in any capacity. Purposive sampling was undertaken through the distribution of the questionnaire to the course directors of all UK PA programmes. The course directors were then asked to share the questionnaire with all PA educators in their HEI. The questionnaire remained open for a three-month period during which two reminder emails were sent. To further encourage recruitment the research outline was presented at the UK national PA educators conference during the data capture period and a direct link to the questionnaire made available to attendees.

Results

Quantitative analysis was undertaken through tabular and graphical representation. Free text data was explored for trends and themes and analysed narratively.

In total, 73 participants completed the questionnaire, with 69 from clinical backgrounds, and 4 participants with non-clinical roles. Table 1 shows the mix of clinical healthcare professionals in educator roles. PAs 57.9%; Doctors 31.9%; Nurses 5.8%; Paramedics 5.8%.

Of the 69 respondents with a clinical background, table 2 shows the number of years of clinical experience they had before starting their first role in PA education. Just over half of participants had at least five years of clinical experience before starting their first role in PA education (35 participants).

At the time of answering the questionnaire fifty-two of the sixty-nine clinically trained participants still worked in a clinical role alongside their educational responsibilities. Seventeen participants with clinical backgrounds are no longer working clinically.

To facilitate the data analysis, the responses for job title and responsibilities were grouped into levels of seniority: Level 5 (professors), Level 4 (e.g. senior lecturers, course directors), Level 3 (e.g. lecturers), Level 2 (e.g. teaching fellows), and Level 1 (ad hoc tutors). Table three illustrates the breakdown of these levels with corresponding years in PA education and highest qualification held. The commonest period of experience in PA education was 3 - 4 years (19 participants). The highest qualification most commonly held was a master's degree (36 participants). Fifty-three of the seventy-three participants worked for a HEI where the PA training program was either housed within a medical school, or a medical school was also part of the HEI.

The responses to the questions relating to prior experience, and support, in their current educational role are shown in table 4.

These results highlight that educators are being supported with their own development, both formally and informally, however also show clear areas where there appears to be a lack of development, particularly in leadership, mentoring, communication and student support. When the results were looked at by seniority level it was notable that support for personal development was

in place for those in substantive positions whilst there was less evidence to support this occurring across the full spectrum of teaching staff.

Discussion and recommendations for UK PA Schools

The sample population demonstrates a plurality of clinical roles supporting PA education with the majority being PA's or doctors. This is in line with the aspiration for improved interprofessional education, and evidence of its value⁷, whilst ensuring sufficient profession specific leadership of a training program ensuring effective role modelling for students⁸. There is clear benefit to be gained from the range of roles in PA education teams linked to interprofessional working values that are crucial for successful integration into the healthcare workforce⁹. It is notable that almost 65% of the educators surveyed had worked in PA education for four years or less. This is likely to be indicative of the relative youth of the profession, the large increase in the numbers of training programs that opened in 2016, and the subsequent 16 that opened between 2017 to 2024. Of the 47 educators who had worked in PA education for four years or less 31 were PAs with an additional 9 being doctors. It is surmised that many training programs may have actively sought to engage PAs as staff to ensure involvement of the profession, help with professional identity, course credibility and understanding of the level and depth of education required for a PA. Of those who had worked in PA education for 4 years or less approximately 80% had at least 3 years of clinical experience prior to starting in PA education and 71.2% continued to work clinically alongside their role in education. The majority of those in more senior positions on training programs had worked in PA education the longest.

The results lead to a number of recommendations (figure 1) which need to be considered alongside existing guidance as previously highlighted in the introduction.

Recommendation one. Training programs must ensure sufficient contemporary clinical and pedagogical input into education, i.e. sufficient educators who remain both active in clinical

practice and maintain their educator development as part of the wider faculty. Whilst this is a finding from this study, we believe it is not well articulated in other guidance. If training programs are to ensure that pedagogy and assessment remain current and engaging, and to ensure quality assurance of the education provided, we believe this to be non-negotiable.

Contemporary clinical knowledge will support queries from students on placement who will be exposed to the latest clinical practice and who have changing expectations of the educational environment. Contemporary pedagogical knowledge, skills, and experience must also be maintained by educators on the training program alongside their clinical expertise. It has already been commented that the leadership must be of the appropriate seniority however those in support roles must have the relevant experience (both clinical and pedagogical) to ensure high quality delivery of teaching and assessment. Job descriptions and recruitment processes should be designed to ensure that this requirement can be met. Once in post it is crucial that all educators understand the curriculum and how their role fits into delivery of this. Students will ask questions of staff regarding differing aspects of the curriculum, and we must ensure that we can direct them to an appropriate solution regardless of who is asked. Where the wider faculty is multiprofessional the knowledge of what a PA is, and their role, is also vital to support the student's professional identity and improve the "hidden curriculum" of the programme¹⁰.

Recommendation two. Training program leaders should have training in management, leadership, coaching and mentoring, built into their academic development plans through their job appraisal process. Knowledge and skills gained from this training enhances communication, adaptability and decision making, enabling course leaders to effectively manage training programs, inspire and motivate students, provide staff with appropriate guidance, career development and facilitate personal and professional growth¹¹. It also helps foster a positive and inclusive learning environment. This training is vital to ensure that training programs can be sustainable, well led and continually developing as appropriate leadership and management training will facilitate conversations across diverse student groups and clinical specialties¹². Interprofessional training in leadership should be encouraged as it improves integration and is in line with GMC

recommendations in good medical practice¹³. Interprofessional working is increasingly recognised as important for the development of collaborative practitioners and leads to improved patient outcomes¹⁴. Currently in the United Kingdom there is significant tension between the medical and PA professions and thus such interprofessional working is even more important¹⁵. It is concerning that many respondents had not had any training in coaching and mentoring, the process of supporting others professional development, as this is vital to develop the current faculty and the future leadership of training programs.

Recommendation three. All those working in PA education should have an opportunity to develop their academic and pedagogical skills. Our results demonstrate that a significant number of respondents had not had such training (table 4). For some this training will be through formal processes such as master's level education (including postgraduate certificates and diplomas) whilst for others, especially those involved in more ad-hoc roles such as small group tutoring, it may be through more CPD style learning or training. It is recommended that all PA training programs should provide development opportunities for those working in its education team with particular focus on improving pedagogical practice for those not on formal qualification pathways. To facilitate this HEIs need to ensure that any non-credit bearing training is recognized as meeting an appropriate level of quality to ensure that their staff are appropriately trained to deliver high quality education to students. All staff working on PA training programs in any capacity should have an appraisal process that can, where relevant, then be used as evidence in their professional body appraisal requirements. This process will enable all staff to feel able to discuss career progression, and development, either within the organisation itself or thinking toward opportunities that may arise within their current, or at other, organisations. Putting a robust review process in place can ensure that all staff feel valued, engaged and that issues such as succession planning can be addressed effectively and in a supportive manner. A career support plan should be offered to all staff on the course, not simply the senior team. This should be designed around, and tailored to, the individual's ambition which will make it relevant and aspirational. We believe that this is likely to be aspirational for all clinical educators, not simply those in PA education.

Recommendation four. All staff should be able to recognise the student in difficulty and, as a minimum, be able to signpost them appropriately to relevant support services. The lack of training in student welfare, highlighted in question 14 (table 4), was of concern and, given the recent challenges to the profession in the UK, and the anxiety it has caused both qualified, and student, PAs, individual welfare is paramount¹⁶. Small group tutors may be in a better position to pick up welfare issues than those in more senior positions and so such training must be cascaded to all staff on the course. This issue may also be reflected in the lack of interpersonal and communication skills training amongst the educator cohort with only around a quarter having had formal development in this area. Communication skills are at the heart of effective delivery of education and provision of appropriate student support. Provision of these skills to educators is of vital importance in improving the student experience.

Recommendation five. Universities must support pedagogical research, both specific to the PA profession, but also more generally. If we are to ensure that the education delivered by training programs can meet the needs of students this recommendation is crucial. Understanding the subject matter is only one part of effective education with pedagogical approaches the other. Whilst many staff will be on teaching contracts the undertaking of research that advances teaching practice must be supported to allow innovation and continual improvement of the educational offering, in addition to personal educator development and career progression in academia¹⁴.

Limitations

This study has limitations. The majority of responses (53 of the 73) came from training programs based in medical schools or in HEIs with medical schools. Sampling was purposive with the survey distributed to educators via training program directors (who were also asked to respond). As multiple respondents could come from a single program, and the survey was anonymous, the exact number of programs represented in the study unclear, as is the overall proportion of

educators who responded. It is therefore difficult to draw conclusions regarding the generalisability of the study to all programs.

Another limitation that we identified is a level of ambiguity with three of the questions. There were overlaps seen in the answers for question 2, relating to job title on the PA course, and question 3 regarding responsibilities in this role, indicating the interpretation of this question differed amongst participants. Question 19 “Are you involved in activities which demonstrate professionalism and role modelling amongst PA’s” received 2 free text answers that stated that the respondent did not understand the question. Future research should seek to be more explicit in these definitions whilst recognizing that differences in roles and titles across HEIs may always be a barrier to absolute clarity.

Conclusion

This study sought to understand the current position of PA educators in the UK and provide recommendations for course providers. These recommendations are designed to be complimentary to other existing guidance, such as those from AoME and PAEA, with the intention of addressing key identified areas for development. We believe that implementing these recommendations across training programs will improve the opportunities for all those delivering PA education and consequently improve the offering to the students undertaking PA programmes. It is our hope that universities will consider and implement these recommendations to maximize the quality of the experience for both staff and students.

Ethics

The research was reviewed and approved by the University of Sheffield ethics committee ref 051489

Figure legends

Figure 1: Recommendations for Physician Associate School faculty development

References

1. Royal College of Physicians. The Faculty of Physician Associates launches a draft physician associate curriculum [Internet]. 2023 [cited 2023 Dec 14]. Available from: <https://www.fparcp.co.uk/about-fpa/news/the-faculty-of-physician-associates-launches-a-draft-physician-associate-curriculum#:~:text=The%20first%20formal%20PA%20programme,quality%20education%20for%20PA%20students.>
2. Royal College of Physicians. Where can I train to be a physician associate? [Internet]. 2023 [cited 2023 Dec 14]. Available from: <https://www.fparcp.co.uk/fpa-membership/pa-students/pa-student-programmes/>
3. Royal College of Physicians. Faculty of Physician Associates. Focus on physician associates: census 2021 [Internet]. Royal College of Physicians. 2022 [cited 2023 Dec 14]. Available from: https://www.fparcp.co.uk/file/image/media/6343f3dc8cef2_MEMB_FPA_Census_Report_21_FINAL.pdf
4. Royal College Of Physicians. Faculty of Physician Associates. Focus on physician associates: census 2020 [Internet]. Royal College of Physicians. 2021 [cited 2023 Dec 14]. Available from: https://www.fparcp.co.uk/file/image/media/60fecfd9a2d20_7858_fpa_census_2020_report_V4.pdf
5. Academy of Medical Educators. Professional Standards for medical, dental and veterinary educators. Fourth Edition. [Internet]. 2022 [cited 2023 Dec 14]. Available from: [https://www.medicaleducators.org/write/MediaManager/Documents/AoME_Professional_Standards_4th_edition_1.0_\(web_full_single_page_spreads\).pdf](https://www.medicaleducators.org/write/MediaManager/Documents/AoME_Professional_Standards_4th_edition_1.0_(web_full_single_page_spreads).pdf)
6. Zaweski, J. *et al.* (2019) 'Physician Assistant Educator Competencies', *The journal of physician assistant education*, 30(1), pp. 47–53
7. Saragih, I.D., Hsiao, C.T., Fann, W.C., Hsu, C.M., Saragih, I.S. and Lee, B.O., 2024. Impacts of Interprofessional education on collaborative practice of healthcare professionals: a systematic review and meta-analysis. *Nurse Education Today*, p.106136.
8. Kim, D.T., Applewhite, M.K. and Shelton, W., 2024. Professional identity formation in medical education: some virtue-based insights. *Teaching and Learning in Medicine*, 36(3), pp.399-409.
9. Gilbert, J.H., Girard, M.A., Grymonpre, R.E., Mahler, C. and Maxwell, B., 2023. The Applicability of Interprofessional Education for Collaborative People-centered Practice and Care to Health Plans and Workforce Issues: A Thematic Global Case Review. *Education for Health*, 36(2), pp.67-75.
10. Glick AD, Merenstein GB. Addressing the hidden curriculum: understanding educator professionalism. *Med Teach*. 2007;29(1):54–7
11. Blackmore, P. and Blackwell, R. 2006. Strategic leadership in academic development, *Studies in higher education*, 31(3), pp. 373–387
12. Webb, A. M. B. *et al.* 2014. A First Step Toward Understanding Best Practices in Leadership Training in Undergraduate Medical Education: A Systematic Review. *Academic medicine*, 89(11), pp. 1563–1570

13. General Medical Council (2024) Good medical practice. Available at: <https://www.gmc-uk.org/-/media/documents/good-medical-practice-2024---english-102607294.pdf> (Accessed: 18 July 2024)
14. Buring S.M., Bhushan A., Broeseker A., Conway S., Duncan-Hewitt W., Hansen L., Westberg S. Interprofessional Education: Definitions, Student Competencies, and Guidelines for Implementation. *Am. J. Pharm. Educ.* 2009;73:59.
15. Bagenal, J. 2024. Physician associates in the UK and the role of the doctor. *The Lancet (British edition)*, 404(10448), pp. 102–104
16. Ferreira, T., 2024. The role of the physician associate in the United Kingdom. *Future Healthcare Journal*, 11(2), p.100132.
17. Tavakol, M., Murphy, R., Rahemei-Madeseh, M. and Torabi, S., 2008. The involvement of clinicians in medical education research. *Quality in primary care*, 16(5), pp.335-340