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Paediatric Tasks and Supervision of Prevocational Doctors: Do Supervisors and Trainees Agree?

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Abstract

Background / Introduction

In competency-based medical education, Entrustable Professional Activities (EPAs) define key tasks that trainees can be entrusted to perform once sufficient competence is demonstrated. Their

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effectiveness relies on a shared understanding between supervisors and supervisees regarding task expectations and supervision levels.

Objectives / Aim

This study aimed to investigate whether there is a shared understanding of the job expectations and required level of competence between prevocational doctors (PD) undertaking a paediatric rotation and their supervisors.

Methods

We conducted a prospective qualitative study using online surveys in the paediatric department of a major referral hospital for Central Queensland. 18 participants (9 PD, 9 supervisors) were recruited. They were required to list the jobs expected of PD and their level of supervision. The responses were analysed through thematic analysis by two coders independently initially, followed by consensus resolution of codes and themes. The responses were assessed for agreement between PD and supervisors.

Results

Jobs mentioned by PD but not their supervisors included completing forms, participation in telehealth, calls to tertiary retrieval teams and updating the roster. Jobs mentioned by supervisors but not PD included participation in multidisciplinary team meetings, managing deliveries, escalation of care, communication to families, audits and delegation of tasks. There was no agreement in terms of the level of supervision for baby examination, formulation of job list, referrals and the charting of medication and fluids.

Conclusion

While there were disagreements between PD in paediatrics and their supervisors in regard to the scope of common jobs and level of supervision, the most common area of agreement was in EPA 2, describing the recognition and care of the acutely unwell patient. Bridging the gap in the disagreement will be helpful in PDs learning from EPAs.

I INTRODUCTION

Competency-based medical education (CBME) has been implemented and acknowledged worldwide with its integration into various training programs seen as a revolutionary step as the medical society adapts to the challenges posed by emerging healthcare system. The aim of this framework is to marry the acquired knowledge with application in the clinical setting to meet the needs of the patients (ten Cate, 2017). Entrustable professional activities (EPA) is a concept that has been utilized to further enhance competency-based medical education by translating competencies into clinical practice. It can be described as “unit(s) of professional practice that can be fully entrusted to a trainee, as soon as he or she has demonstrated the necessary competence to execute this activity unsupervised” (ten Cate et al., 2015). Through an EPA, a task is entrusted to trainees to assume clinical responsibilities at a time deemed appropriate for the level of training by supervisors. It should be described with sufficient details to set trainee’s expectations as well as to guide a supervisor’s assessment and entrustment decision (ten Cate, 2013).

Pre-vocational doctors consist of interns (or post graduate year 1) and residents (post graduate year 2 onwards) who have yet to be enrolled in a specific training program. EPAs are expected to be mandatory for PGY1 and 2 according to the New National Framework for Prevocational Medical Training from 2025 (Australian Medical Council, 2024). Whilst there has been an extensive shift to utilize CBME in Australia, there has not been much development of EPAs in paediatrics, especially for the pre-vocational doctors. This has placed an urgency to develop EPAs that are specific to the learning needs of health professionals undergoing their paediatrics rotation. Through this, we can identify the competencies required, provide feedback and enhance the acquisition of essential skills of paediatric care.

The development of EPAs is challenging and requires a significant time commitment, but it also relies heavily on a shared understanding and agreement on essential tasks (Hennus et al., 2023). Patient safety and educational efforts can be affected if supervisors place excessive trust in trainees who are not competent yet appear to fulfil expectations. On the contrary, a supervisee’s learning and development can be negatively affected and delayed if supervisors are reluctant to entrust them with responsibilities befitting their level for designated tasks (Touchie et al., 2014). This educational alliance builds on the trusting relationship between trainees and their supervisors, and it also implies a shared understanding of educational objectives so that the level of entrustment can be negotiated. This alignment is crucial in the mutual appreciation of assessment and feedback.

II AIMS

This study aimed to investigate the extent of shared understanding of job expectations and the required level of competence between prevocational doctors undertaking a paediatric rotation and their supervisors.

III METHODOLOGY

A Design

This was a prospective qualitative study which utilized a secure electronic survey to explore if there is a shared understanding of job description between prevocational doctors in paediatrics and their supervisors. Supervisors consisted of senior medical officers, fellows, and accredited and unaccredited registrars (usually PGY3+). The intention was to allow both parties to describe their expectations independently. The Consolidated criteria for Reporting Qualitative research checklist (Tong et al., 2007) was utilised to guide this study’s reporting.

B Participants and recruitment

Eligible participants were identified from the paediatric department in a major referral hospital in regional Queensland. The inclusion criteria are: 1) Australian Health Practitioner Regulation Agency (AHPRA) registered doctors 2) have worked in the paediatrics department in 2024 for a minimum of 2 weeks at the time of completion of the survey. Eligible participants consisting of both supervisors (senior medical officers, fellows, accredited and unaccredited registrars) and supervisees (prevocational doctors) were identified by the departmental secretary and approached via an email with a participant information and consent form. On receipt of the completed form, a survey link was then sent to the corresponding email. The survey form (see attached) entails listing the jobs expected of prevocational doctors followed by the expected level of supervision (minimal/direct/supervision at a distance).

C Data collection

Data collection occurred between July to December 2024. Responses were anonymized and participants were asked not to discuss their submission with others. The data collected were only accessible by the investigators involved in the study. The investigators did not know who filled the forms as we were not involved in sending the emails and the participants were not identifiable by their forms.

D Data analysis

The written submission of the electronic surveys formed the data that was analysed. Analysis of the data was undertaken using a modified Braun and Clarke's methodology (Braun & Clarke, 2006). Thematic analysis of data using the Braun and Clarke's methodology typically uses the six recognised steps namely, familiarisation, generation of codes, searching for themes, reviewing themes, defining and naming themes and producing a report. Data collected were entered electronically into NVivo 15 software for ease of organisation and analysis. Next, the two authors independently generated preliminary codes before jointly reviewing and refining the final codes. Subsequently, the team tried to fit the codes into the themes using the four entrustable professional activities that are listed in the National Framework for Prevocational Medical Training which are clinical assessment, recognition and care of the acutely unwell patient, prescribing and team communication (Australian Medical Council, 2024). Codes that did not fit into these EPAs were categorised into a different group. Where the authors did not agree on independent assessment of participants, these were resolved by consensus discussion with no instances requiring external adjudication. Comparison of the expected level of supervision for listed activities between the prevocational doctors and their supervisors was made. The levels of supervision listed in responses were reviewed by the authors and divided into 3 main levels, consisting of direct supervision (supervisor has to be physically present), supervision at a distance (supervisor is aware of the activity being completed but not physically present), and no/minimal supervision (supervisor does not need to be aware). Agreement was assumed when the majority of participants in both groups (PDs and supervisors) chose the same level of supervision.

E Ethical considerations

Ethics approval was granted by Central Queensland Hospital and Health Services Research Ethics Committee (HREC/2024/QCQ/108585). The written consent was obtained from participants after they had time to review the participant information and consent form. They were reminded of their right to withdraw at any stage.

IV RESULTS

18 participants were recruited from January to December 2024 which consisted of 9 prevocational paediatric doctors and 9 supervisors. Supervisors included accredited and

unaccredited registrars, fellows and senior medical officers. The themes were adopted from the four EPAs determined by the National Framework for Prevocation Medical Training (Australian Medical Council, 2024). The four EPAs elected are deemed to describe essential work that aligns closely with the prevocational outcome statements. Findings are presented under each EPA with a comparison between the responses of PD and their supervisors.

A Clinical assessment

Mutually reported tasks listed by both groups include attending and assistance with ward rounds, neonatal examination, review of patients, ordering and interpreting investigations. Conducting telehealth consultations in liaison with tertiary specialty teams was acknowledged by PDs as a core job requirement but not reflected in supervisors' responses; with the expectation of no supervision that is required for this task. Agreement for supervision was achieved in the clinical review of patients whilst there was no consensus for the other tasks. A supervisor responded with *"I expect PDs to stretch their abilities under supervision and understand their scope of practice when they are not supervised"*, emphasising on the need for supported skill development and acknowledging own limitations. Another supervisor stated *"no place for minimal supervision until advanced training"* reflecting the expectation of sustained oversight and support for PDs.

B Recognition and care of the acutely unwell patient

Jobs commonly identified by both supervisors and PDs in this theme include patient admissions, neonatal resuscitation, procedures including cannulation and catheterization, and referrals. Escalation to senior medical officers was mentioned by one supervisor but not by PDs. There was consensus between both groups on supervision for all the tasks listed by both groups except for referrals where supervisors prefer more supervision compared to minimal supervision that PDs suggested.

One of the PDs highlighted the variable expected supervision based on the severity of patients by responding with *"... help admit patients which requires supervision at a distance or direct supervision depending on level of acuity of the patient"*. PDs are also keen for supervision with patient admissions which are also reflected in supervisors' responses with one PD stating its importance *"... to ensure I did not miss anything crucial, and the patient is still getting safe competent care"*.

C Prescribing

Tasks identified by both groups in this domain include charting medication and fluids as well as completing scripts for discharge. There was no agreement on the charting of medication and fluids but consensus for supervision at a distance for completing scripts. PDs were aware of the difference in prescribing in paediatrics with one stating *"ordering medications and fluid according to current recommended guidelines"*, and one supervisor also highlighting the importance of this with *"proper use of drug formularies, and dosages of common drugs"*.

D Team communication

Jobs listed by both groups in this domain include completing discharge summaries, editing handover list, reviewing and completing job list. Of these, only agreement for minimal supervision was achieved in the completion of discharge summaries. Tasks listed by PDs but not their supervisors include liaison with retrieval services and completing medical certificates. Meanwhile, supervisors listed participation in multidisciplinary teams as a vital job in this domain, but this was not reflected in the responses of PDs. The importance of involving the multidisciplinary team members was prevalent with one supervisor going into detail the level of participation expected *"...involvement in multidisciplinary team meetings – case presentation and discussion of management plans"*.

E Others

Tasks listed by both PD and supervisors in this area include completion of paperwork and documentation, and the teaching of medical students. Of these, no agreement was achieved in terms of level of supervision. Jobs listed by PDs but not their supervisors included completing forms and updating roster. Conversely, tasks mentioned by supervisors but not PDs included communication with families, attending outpatient clinics, delegation of tasks, and audits.

Quality improvement remains the forefront of expected jobs listed by supervisors with one detailing the expected participation in audits with "...supervision and plan by registrar or senior medical officer after going through the ethical issues associated followed by finalizing at the end".

One supervisor also highlighted the importance of leadership and management qualities, stating "... delegation of appropriate tasks to resident medical officers".

V DISCUSSION

The major aim of this study was to explore shared understanding between PDs and their supervisors in tasks and their expected level of competence. This study has demonstrated whilst there were common jobs listed by both groups, their expected level of supervision still differed. This finding applies across all the domains which includes the 4 EPAs outlined in the National Framework for Prevocational Medical Training. In addition to this, there are tasks that are listed by only one group indicating there are different priorities deemed important by each group in the medical training and development at the prevocational stage.

Within the domain of Clinical Assessment (EPA 1), supervisors tend to prefer more supervision on mutually listed tasks of ward rounds, neonatal examination and the ordering and interpretation of investigations compared to PDs. This may indicate the intricacies of paediatric care underpinned by developmental and physiological variation by age, reliance on observation and opportunistic examination including specific manoeuvres to elicit a particular finding and acknowledging the importance of age-specific ranges and red flags in the interpretation of results (Larsson, 2025). Telehealth consultation with tertiary teams was only identified as a core task by PDs and may reflect the evolving and increasing use of digital modality to improve access in healthcare. The lack of this task being mentioned by supervisors identifies a possible gap in terms of guidance for the use of this technology.

In terms of the recognition and care of the acutely unwell (EPA 2), there was agreement on the level of supervision for patient admissions, neonatal resuscitation and procedures. Both groups agreed on the need for more supervision in this area which exhibits the preference for more oversight especially when handling acutely ill patients. Procedures in paediatrics are also notoriously more challenging with the emphasis on reducing consequences such as post-traumatic stress symptoms, healthcare avoidance behaviours and development of needle phobia (Segers et al., 2022). A mismatch in expected competence was evident in completing referrals whereby supervisors prefer more supervision compared to PDs. The referrals process can be complex and potentially be impeded by subspecialty shortage, travel barriers, long wait times and communication issues between the referrer, subspecialist teams and families (Bohnhoff et al., 2023). Due to these factors, supervisors probably would prefer more direct oversight.

Across the theme of prescribing (EPA 3), there was no consensus on the charting of medication and fluids whereby one supervisor prefers more supervision. This could possibly be due to the risk of prescription error with paediatric specific factors such as weight-based dosing and age-appropriate formulations (Hannibal et al., 2025). It is also important to note that this is only mentioned by one supervisor only, reflecting potentially a serious lack of recognition amongst supervisors.

For EPA 4 (team communication), supervisors prefer more supervision for the editing of handover list and the reviewing and completion of job list. This could possibly be explained by the need of oversight to ensure continuity of care and patient safety. Junior staff may also lack the

experience to triage tasks on the job list according to urgency (Callaghan et al., 2017). Further in this domain, PDs also prioritize administrative tasks such as retrievals coordination and the completion of medical certificates as opposed to supervisors who prioritised participation in multidisciplinary team. This likely reflects their focus on task completion as a performance indicator at their stage of personal development and possibly limited exposure in interprofessional leadership roles.

In the remainder of tasks listed that could not fit into the 4 EPAs listed, there were similar focus of PDs on administrative tasks such as completing forms and updating roster. Communication with families is deemed important in the care of paediatric patients by supervisors but this has not been mirrored by PDs. Communication in paediatrics is an integral part in ensuring positive clinical outcomes and optimizing delivery of healthcare with unique consideration of the patient-parent-physician triad (Jenkins et al., 2024). Due to this, PDs likely tend to defer this task to their supervisors. Supervisors have also placed greater emphasis on clinical governance and quality improvement and view audits as a core requirement of continuous professional development, even at the prevocational medical training stage. Clinical audits are vital instruments in assessing and improving patient care and safety and the lack of prioritization from PDs probably reflects the time and resources limitation which was demonstrated in a study evaluating the benefits of audits in interns undergoing an emergency rotation (Windish et al., 2021).

The findings from this study have highlighted the importance of mutual consideration from both sides during the planning and implementation of EPAs. Disagreement over agreed tasks and the prioritization of the different tasks between the two groups is a potential cause of uncertainty in performance indicators and adequacy of feedback. Discussions must be held by both sides actively in the setting of goals and expected competence before the start of a term with regular opportunities for feedback throughout the term. This would enhance the shared mental model of entrustment and improve both learning outcomes and patient safety. Additionally, this study has underlined the significance and fine balance between supervision and graduated autonomy (Touchie et al., 2014).

The advantage of this study is that it utilized electronic surveys which can be completed at the participant's time, often resulting in a more comprehensive response without feeling the urgency of time constraints that may be present with a face-to-face interview. The use of this mode of survey also ensured data security, preserved participant anonymity and limited participants to only one submission each. The adoption of this survey modality is an initial starting point in exploring the breadth of the perceived tasks and expectations before undertaking further qualitative understanding in the form of interviews and focus groups. Participants are also AHPRA-registered doctors who have met the minimum English requirement for clinical practice and hence, ensures the understanding and context of the survey questions. The rationale for the use of an established national EPA framework in this study is that it enables a transferable basis of comparison for future research. However, there are also tasks expected of PDs that are not limited to these 4 EPAs and we have cohorted these into another group on its own.

Supervisors in paediatrics can often range in diverse roles despite all of them sharing direct oversight responsibilities for PDs. Although this study has considered the opinions of the two groups, there are significant varying experiences within the two groups which may add variability to the responses. The supervisors' group consisted of accredited and unaccredited registrars, fellows and senior medical officers. Similarly, PDs ranged from international medical graduates of varying years postgraduation experience to local university graduates who were mainly recent graduates. In addition to this, our study was conducted in a single site and generalisability of findings would need to be considered with caution. Adequacy of data in a qualitative study is determined by the depth and richness of the data rather than sample size. We believe that our study satisfies these assertions.

Future research should consider the specification of level of experience within both groups to further scrutinize responses. The involvement of allied health and nursing teams can also provide valuable information on teamwork expectations within paediatric care.

VI CONCLUSION

This study has demonstrated that while there are core tasks that are identified across the EPAs mutually by both PDs and their supervisors, the perceived level of supervision varied. Both PD and supervisors shared agreement on the level of supervision for many EPA 2 tasks. Additionally, supervisors prioritized areas in clinical practice, multidisciplinary team communication and quality improvement rather than areas regarded as important by PDs who seemed to focus on administrative tasks. The shared understanding of entrustment and supervision is crucial in fostering an environment that is both safe for patients as well as provide an effective and developmentally appropriate training for prevocational doctors in paediatrics.

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