RESEARCH ARTICLE OPEN ACCESS

Australian Paramedic Students′ Reports of Clinical Placement Experiences: A Snapshot From two Cohorts

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ABSTRACT

Clinical placements are a core requirement of paramedicine undergraduate degrees in Australia. Registered paramedics are expected to participate in teaching and mentoring of undergraduate students during placement. Additionally, universities and paramedic clinical placement providers are required to actively participate in providing 360° feedback to ensure ongoing quality of clinical placements. Most students look forward to attending clinical placement and experiencing what it is really like to be a paramedic; however, at times, students′ expectations differ greatly to their experiences. In this study, we provide students′ reporting of their experiences and feedback verbatim and, where possible, grouped into four themes of challenges common across placements: *staffing/supervisor challenges*, *clinical challenges*, *occupational hazards* and *balancing competing demands*. We welcome further discussion and recommend collaborations between universities, clinical placement providers and regulatory bodies to improve clinical placement experiences of paramedicine students on clinical placements, clinical supervision and, potentially, patient safety outcomes.

1 | Introduction

To complete their degree, undergraduate paramedicine students in Australia must demonstrate satisfactory performance during all clinical placements under the direct supervision of suitably qualified paramedics/healthcare professionals, known as 'preceptors, clinical supervisors, mentors or clinical assessors' [1]. During clinical placements with a jurisdictional ambulance service (JAS), students observe and assist in the provision of clinical care for the community. Students rely on their clinical supervisors to provide mentorship, role modelling and support while they attempt and achieve their learning goals [1, 2]. Under Domain 4 of the Professional Capabilities for Registered Paramedics, it is a requirement of registered paramedics to participate in the learning and development of undergraduate paramedicine students [3].

All authors contributed equally to this work.

"*It is a requirement of registered paramedics to partici- pate in the learning and development of undergraduate paramedicine students.*"

Students' experience on clinical placement can be affected by many factors, including, but not limited to, operational workload, rostering constraints, knowledge and preparation of the student prior to placement, cognitive and financial burdens during placement, clinical supervisors' experience, mentoring fatigue of clinical supervisors, professionalism of students and clinical supervisors, academic requirements and university expectations, students' perceptions of what 'clinical placement' entails and the clinical supervisor–student relationship [4, 5].

Australian universities teaching paramedicine degrees are obligated under accreditation guidelines 'to assure safe practice in the program by implementing formal mechanisms relating to clinical placements' [6]. A review of Australian JAS identified limited, to no policies and procedures (depending on the state or territory), to support undergraduate student paramedics while on placement, lending itself to potential risks to student and patient safety. Although universities set expectations for students' behaviour and scope of practice during placements, anecdotal, postplacement feedback from undergraduate paramedicine students to date has identified challenges in achieving expected practice. For example, students reported being directed to drive operational ambulances or treat patients without direct supervision by clinical supervisors.

"*No policies and procedures (depending on the state or territory), to support undergraduate student paramedics while on placement.*"

Universities routinely seek feedback from students regarding teaching experiences, including clinical placements. Academics can use feedback obtained through tools such as the *Slido* interactive polling platform to inform curriculum development, improving both learning and psychosocial experiences of students [4, 7]. Further, to ensure the ongoing quality of learning and assessment during clinical placements, the Australian Health Practitioner Regulation Agency (AHPRA) and the Paramedicine Board of Australia (PBA) require universities provide evidence of direct engagement with clinical supervisors who give instruction and supervision to students and not limit themselves to high-level engagement with the JAS only [8].

Given these conditions for tertiary programme accreditation, and in alignment with requirements for tertiary education providers to regularly moderate programme learning and teaching items, investigation of student perceptions and experiences of clinical placement was warranted. The purpose of this study was to gather students' feedback on their clinical placement with a JAS, unpack their experiences, address any student concerns and inform the structure and delivery of future placements as part of a continuous improvement cycle.

2 | Materials and Methods

2.1 | Participants

Undergraduate paramedicine students from two cohorts (second year, $n = 71$; third year, $n = 54$; total $N = 125$) of one degree programme at an Australian university were invited to provide anonymous feedback using the *Slido* platform, immediately following their clinical placement with a JAS. Responses were not mandatory; thus, not all students responded to all items. This study was approved by the Human Research Ethics Committee (ETH2024-0014 amendment).

2.2 | Measures

As part of the clinical placement experience feedback cycle, data were gathered using a five-item survey, administered during the postplacement residential school. Items were (1) students' global feedback using one emoji, (2) students' experience of rostering, (3) students' experience of placement tasks, (4) students' report of challenges or concerning experiences and (5) students' own advice regarding how other students can prepare for a paramedicine clinical placement. Student responses to these questions were voluntary, unvetted and enabled facilitated discussion by experienced paramedic academics, about student placement experiences.

2.3 | Procedures

All students had undertaken a 4- or 5-week 'on road' clinical placement with a JAS under the supervision of qualified/registered paramedics. Immediately following that clinical placement, students attended a face-to-face residential school at the university, during which they were invited to provide these data. Student responses were anonymous. Responses were initially unmoderated, but before projection onto a screen for discussion, they were screened by an academic to remove offensive language, hate speech or privacy breaches. Student feedback was then used by the academics to prompt facilitated reflections, discussions and, when required, additional support or debriefing among the student cohort.

2.4 | Analysis

Numerical data from the two cohorts are presented descriptively as counts (integers) and percentages. Open text responses regarding challenges experienced on placement were subject to exploratory thematic analysis. Broadly applying the approach described by Braun and Clarke [9], four authors (LH, AW, DW and JL) reviewed the student responses (quotations) to identify keywords, applying first- and second-cycle coding and identifying probable themes. Another author (MC), who is not a paramedic and had no engagement with the student participants, independently reviewed the transcripts to identify keywords and then collaborated with the first four authors to refine themes. Disagreements between these authors were resolved by

consensus. The other two authors (SD and JT) cross checked the themes and confirmed the selection of demonstrative quotations.

3 | Results

A total of 114 students (second-year students $n = 61$; third-year students $n = 53$) responded to the *Slido* survey during their respective postplacement residential schools. These students represent a substantive majority of the students who attended clinical placements in that calendar year: 61/71 second-year preceptors (86%), and 53/54 third-year preceptors (98%). Students' responses to the survey questions are reported in Figures 1–3. Most quotations are verbatim, and any redactions or corrections are noted in square brackets. Figure 1 presents the data elicited from Survey Question 2 'What was your rostering experience like?' and Question 3 'During my clinical placement, I … (tick all that apply)'. Survey Questions 4 and 5 provided opportunity for students to respond with open text. Some students provided multiple responses to these open text items.

A total of 116 responses were received to Question 4: 'Is there anything that occurred on your placement that you found challenging or concerning?'. Open text responses have been grouped into four themes: *staffing/supervisor challenges*, *clinical challenges*, *occupational hazards* and *balancing competing demands*. Some examples of the responses submitted by students for Question 4 are presented in Figure 2. Overlap between themes is indicated by cross references against quotations. A total of 113 responses were received to Question 5: 'If there was any advice you would give yourself (or another student) before attending this last placement, what would it be?'. A synopsis of students' advice to themselves and others is captured in Figure 3.

4 | Discussion

Feedback from students about their learning and teaching experiences, including clinical placements, is routinely gathered by universities. Universities educating undergraduate paramedicine students are obligated to refer this feedback back to clinical supervisors and the JAS or industry placement provider. Student cohorts may be placed in disparate locations within a JAS, and students may work with many clinical supervisors across the course of any placement block; thus, it is both impractical and risks students' anonymity, to report individual feedback directly to individual clinical supervisors, unless required for specific reporting purposes (i.e., safety issue that demands immediate collaborative response).

Survey Question	Cohort responses	Overall responses
Q.2 What was your rostering experience like? (Tick all that apply)	**Y2: n=56/61 (92%)** **Y3: n=49/53 (92%)**	**105/114 (92%)**
2a) I had at least one constant clinical supervisor for my entire placement experience	Y2: 34 (61%) Y3: 35 (71%)	69/105 (66%)
2b) I worked with multiple clinical supervisors	Y2: 36 (64%) Y3: 23 (47%)	59/105 (56%)
2c) On at least one shift, I only worked with a single officer for part or all of a shift	Y2: 26 (46%) Y3: 22 (45%)	48/105 (46%)
2d) At least once, I turned up for my rostered shift and there was no one to work with	Y2: 17 (30%) Y3: 12 (24%)	29/105 (28%)
2e) At least once, I turned up for my rostered shift and was told to wait for another crew to come for me	Y2: 18 (32%) Y3: 10 (20%)	28/105 (27%)
2f) At least one occasion/shift, I was sent home because there were no operational crews for me to work with me	Y2: 4 (7%) Y3: 5 (10%)	9/105 (9%)
Q.3 During my clinical placement, I… (tick all that apply)	**Y2: n=56/61 (92%)** **Y3: n=51/53 (96%)**	**107/114 (94%)**
3a) Drove an operational vehicle	Y2: 13 (23%) Y3: 23 (45%)	36/107 (34%)
3b) Treated a patient without supervision	Y2: 22 (39%) Y3: 23 (45%)	45/107 (42%)
3c) Felt/was unsafe/bullied/harassed in the presence of/by my clinical supervisors or an allied professional	Y2: 3 (5%) Y3: 5 (10%)	8/107 (7%)
3d) Had trouble adjusting to shift work	Y2: 15 (27%) Y3: 13 (25%)	28/107 (26%)
3e) Attended a CPR case/deceased person	Y2: 31 (55%) Y3: 33 (65%)	64/107 (60%)
3f) Attended a pediatric case	Y2: 50 (89%) Y3: 47 (92%)	97/107 (91%)
3g) Attended a mental health case	Y2: 53 (95%) Y3: 48 (94%)	101/107 (94%)
3h) Attended a case that included domestic violence/intimate partner violence/assault/sexual assault/violence	Y2: 39 (70%) Y3: 32 (63%)	71/107 (66%)
3i) Attended a case that included persons under the influence of drugs or alcohol	Y2: 52 (93%) Y3: 48 (94%)	100/107 (93%)
3j) Attended a case where I felt unsafe/in danger	Y2: 19 (34%) Y3: 24 (47%)	43/107 (40%)
3k) Attended a case where the agency employee assistance program (EAP) was activated or required	Y2: 8 (14%) Y3: 10 (20%)	18/107 (17%)
3l) Attended a case where I felt overwhelmed but **supported** by my clinical supervisor	Y2: 34 (61%) Y3: 37 (73%)	71/107 (66%)
3m) Attended a case where I felt overwhelmed and **not supported** by my clinical supervisor	Y2: 4 (7%) Y3: 10 (20%)	14/107 (13%)

FIGURE 1 | Student experiences of clinical placement (JAS operations).

Item: Is there anything that occurred on your placement that you found challenging or concerning? (Open text response) Total: 116 responses from 108 students; Y2: 60 responses from 55 students; Y3: 56 responses from 53 students.	
Theme 1: Staffing / Supervisor challenges	**Theme 2: Clinical challenges**
"It's exhausting if your mentors expect you to run every job back-to-back. …. Students can't do every job, every day for over a month." [cross-reference theme 4] – 3rd year student *"There was a qualified [paramedic] nicknamed "X" that was an absolute cow to the [paramedic] that was supervising myself & a graduate paramedic. We did a hot handover i at station with a patient, and "X" was 20mins into the shift & when we arrived, hadn't even signed drugs out. "X" started carrying on yelling in the shed, whilst we had a patient in the back of the truck. It was ridiculous. I worked with another crew & that graduate paramedic told me about a paramedic that bullied them, the whole time, same paramedic "X". Makes me worried about getting placed with someone like "X" & sad that supervisors haven't nipped it in the bud!"* [cross-reference theme 3] – 3rd year student *"…I spent the start of a fair amount of shifts calling [managers] to find a crew that I could join for the remainder of the shift."* – 3rd year student *"Conflict with a mentor – I actively asked for support and was refused…"* – 3rd year student *"Navigating difficult mentors."* – 2nd year student *"Rude triage nurse who wouldn't allow me to do handover. It took a while to be able to do handovers again."* – 2nd year student *"Jaded paramedics who 'hid' from work/comms and refused to help when I stumbled."* [cross-reference theme 3] – 3rd year student *"Mentors didn't want to go to nearby high acuity jobs even tho[ugh] they were the closest."* – 2nd year student	*"Learning how to explain what was wrong to patients…."* – 2nd year student *"6-month-old baby dying."* – 2nd year student *"A suicide by hanging."* – 3rd year student *"Witnessing a lack of communication with the patient, leaving them in the dark about their condition. Witnessing neglect of elder patients in aged care facilities."* – 3rd year student *"Having to leave refugees at home with a [child] post seizure because they couldn't afford the hospital expense after fleeing their home country…"* – 3rd year student *"Treating people that scared me."* – 3rd year student
Theme 3: Occupational hazards	**Theme 4: Balancing competing demands**
"Being with a single officer on a Saturday night shift." [cross-reference theme 1] – 2nd year student *"Being spat at intentionally by a patient."* – 2nd year student	*"Studying, alongside placement, and trying to keep up with the workload, whilst trying to be 100% present for placement. In addition, a constant stress in trying to get paperwork done to support goals has been a constant challenge across all placements."* – 3rd year student

FIGURE 2 | Challenges experienced by students during clinical placement.

Giving students anonymity in responses to the *Slido* questions, and displaying the results in auditorium and classrooms on data projection screens, enabled the academics to facilitate timely and authentic discussions. Asking students to rate their clinical placement with one emoji served as an 'ice-breaker exercise', engaging students in the survey and feedback process and

Item: If there was any advice you would give yourself (or another student) before attending this last placement, what would it be? (Open text response)
Total: 113 responses from 106 students; Y2: 55 responses from 53 students; Y3: 58 responses from 53 students.

"Don't have expectations. Think of placement as a requirement and make the best of it. Take the punches as best you can and move on."
- 2nd year student

"Be adaptable. Enjoy the process. A great opportunity to work out if this job is really for you!"
- 2nd year student

"Your mentors' burnout does not define your practice."
- 2nd year student

"Back yourself…. You can do it."
- 2nd year student

"Sleep well between shifts…Don't take things to heart…. Have realistic expectations…. Save money before placement…. Believe in yourself."
- 2nd year student

"Don't do placement at [name redacted] station"
- 2nd year student

"Don't sleep in your van for 3 weeks [implied: cannot afford accommodation]."
- 2nd year student

"Be willing to partake in anything, the more experience and exposure, the more you will learn."
- 2nd year student

"Reach out for support and have access to someone you can talk to. Find a way to debrief and move on. Reflect on the event but don't overthink it. Preserve your mental impact/burden as much as possible."
- 3rd year student

"Be gentle with yourself but be willing to admit when you don't know something."
- 3rd year student

"Don't let jaded paramedics change your perspective of this job!"
- 3rd year student

"You will soon be qualified and be able to run your own ship, so don't stay up at night worrying about a mentor. Remember how you felt as a student so you can break the chain when you get a student."
- 3rd year student

"Your mentors' actions aren't always a reflection of you. Acknowledge your mistakes but understand that them treating you poorly or in a certain way is because of their issues/experiences, not you."
- 3rd year student

"Don't be afraid to tell your mentors when you need a break from running jobs – qualified paramedics aren't expected to run every job back-to-back for 12+ hours a day, four shifts in a row, for five weeks straight, and the mental burden of being a student takes even more of a toll."
- 3rd year student

FIGURE 3 | Student advice about attending clinical placement.

giving opportunity to commence talking about their placement experiences.

Some responses to Questions 2–4 are paradoxical when compared with private communications received from students during their clinical placements. For example, students are required to advise the university (via email) if they are requested to drive an operational ambulance vehicle. This information is reported back to the JAS by the university for moderation/investigation purposes. Of the 125 students eligible for this study, although on placement, only 16 students (13%) contacted the university via email (as required) to advise they had driven a

JAS vehicle, however, when answering the driving related question in *Slido*, 36 out of 107 (34%) of participants responded in the affirmative. This discrepancy warrants further investigation—one possible explanation is that students fear negative repercussions when reporting this information to the university in an identifiable format such as direct email.

The theme of *supervisor and staffing challenges* was one of the clearest and most consistent. When asked about challenges (Question 4), some students raised assertions of mentor burnout and others wrote of the reluctance of some clinicians to mentor students or respond to cases. Burnout occurs when a

person is unsatisfied with the organizational context of their job and may be experienced as a reduction in professional efficacy, increased cynicism, manifestations of anxiety, irritability, exhaustion or demoralization [10–12]. Reducing burnout is unlikely to be achieved through individual self-care measures alone; it requires organizational/employer involvement to endorse positive work culture and environment [12, 13]. Universities may contribute to burnout prevention by providing curriculum that equips students with tools to mitigate future burnout [12] such as building concepts like developing emotional intelligence, self-care and resilience, into the teaching curriculum.

> "*Assertions of mentor burnout and ... reluctance of some clinicians to mentor students or respond to cases.*"

The final *Slido* question, in which students were asked to offer advice to themselves or other students, elicited some unexpected results as well as some constructive suggestions regarding sleep, finances, openness to learning, seeking support and resilience to supervisors' critique or poor behaviour. We recommend that academics use this advice in future preplacement workshops, to help students prepare academically, emotionally, physically and financially, for their upcoming paramedic clinical placements. Although some of the responses from both cohorts repeated concerning experiences, it is important to recognize that the incidence of overall negative/poor placement experiences was low. Reports of financial impact and emotional toll of clinical placement were apparent, which echoes concerns raised in the Australian Universities Accord surrounding factors impacting students' ability to undertake higher education [14].

> "*Reports of financial impact and emotional toll of clinical placement.*"

It is a reasonable expectation of undergraduate paramedicine students to secure employment with a JAS after graduation; however, feedback from paramedicine programme graduates indicates it may take up to 4 years postgraduation to obtain an active patient-facing (i.e., paramedic) role. Despite most JAS requiring graduate paramedics to undertake graduate induction programmes, these programmes are subject to operational requirements and vary in length, frequency and support provided (NSW [15–18]). Perceived limitations in time and support during graduate programmes may undermine confidence of new graduates resulting in fear of attending high acuity cases. Additionally, novice clinicians may be calling for clinical backup regardless of risk to patients [19, 20].

Contrary to student experiences and feedback, undergraduate paramedicine students treating patients unsupervised is taboo; unsurprisingly, there is a dearth of academic literature on the topic, and both universities and placement providers appear silent on the matter in policy and procedure. In documenting the experiences of final-year nursing students, Reid-Searl et al. [21] noted that about one third of students reported a near miss or actual medication error had occurred during their clinical placement due to inadequate or inappropriate supervision.

> "*Paramedicine students treating patients unsupervised is taboo; unsurprisingly, there is a dearth of academic literature on the topic.*"

There is currently no research related to medication errors witnessed by undergraduate paramedic students; however, the literature suggests that difficult working relationships, such as those which occur in situations of poor supervision, contribute to errors [22]. We must discuss the elephant in the room, and to do so meaningfully requires further investigation of correlation between undergraduate paramedicine student supervision and patient safety. We recommend that future investigations attempt to document the extent of supervision provided for students during placement, and the frequency with which students are working unsupervised, and that these data prompt thoughtful and transparent consideration of students' supervision needs. In other health professions, training graded models of supervision are provided; entry level students may be closely and directly supervised, and over time, as they increase knowledge and demonstrate mastery of skills, students are allowed increased autonomy of practice, such that students nearing graduation are working somewhat independently, yet safely. Could such a model work in paramedicine?

4.1 | Limitations

We acknowledge some limitations in our data. The researchers did not have paid access to *Slido* and were limited to using the free five questions version. Further, although attendance at the postplacement residential school was mandatory, completion of the anonymous survey was voluntary and unvetted; thus, it is possible, despite high overall response rates, that responses to the survey are drawn from students with strong opinions regarding placements. Due to the brevity of the survey and students' responses, a detailed textual analysis was not conducted—we acknowledge that such brief responses may lack nuance, detail, context or thoughtful reflection and suggest that the matters raised could be explored more deeply via in-depth interviews with a representative sample of students at the conclusion of their placements.

Further, we acknowledge that screening of students' responses by an academic staff member prior to releasing them to the visual display is a potential source of bias and may have led to students self-censoring; however, we consider this risk of bias is reasonably necessary to prevent offensive or hateful communication and to maintain the privacy of all parties. Having already noted that students may underreport matters of concern (e.g., driving a JAS vehicle, treating a patient unsupervised) when they may be identified, we also acknowledge the possibility of students overreporting these same matters in a somewhat compensatory response when offered anonymity. Finally, the data in this study are drawn from one university programme and may not be representative of all universities nor demonstrate the complete breadth of challenges faced by undergraduate paramedicine students, educators and JAS.

5 | Conclusions

Undertaking clinical placement with a JAS may impact students in many ways including their time, finances, and cognitive and emotional well-being. Mentoring undergraduate students can also take a toll on the clinical supervisor. In this study, we provide feedback verbatim from students on some of the challenging aspects of paramedic clinical placement and highlight the responsibility of universities, regulatory bodies and clinical placement providers to work together to address the issues identified by students during and upon completion of their clinical placement experience. We present these data for publication to provide aggregated student feedback to clinical supervisors and JAS.

The challenges associated with undergraduate paramedicine students on clinical placement are numerous and have the potential to affect the career progression and clinical development of all parties. We recommend the engagement of all stakeholders in the development of formal policies and procedures to manage the breadth of dynamic activities that paramedicine students are exposed to during their clinical placements with a JAS [5]. We welcome discussion from other academics regarding student feedback received about paramedicine clinical placements and action from regulatory, professional, industry and academic bodies exploring solutions to these challenges (e.g., policy development, supervision framework allowing progressive autonomy for students, training and guidance for supervisors) to improve clinical placement outcomes for students and promote streamlined transition to practice.

Author Contributions

Lisa Hobbs: conceptualization, methodology, writing – original draft, writing – review and editing, project administration, data curation, formal analysis, investigation. **John Latham:** writing – original draft, writing – review and editing, conceptualization, data curation, formal analysis, investigation. **Anita Westwood:** conceptualization, methodology, writing – original draft, writing – review and editing, project administration, data curation, formal analysis, investigation. **Melainie Cameron:** formal analysis, writing – original draft, writing – review and editing, project administration, validation. **Jeremy Taylor:** writing – review and editing, formal analysis, resources, validation. **Scott Devenish:** writing – review and editing, formal analysis, resources, validation. **Dennis Walker:** conceptualization, writing – original draft, writing – review and editing, methodology, formal analysis, project administration, data curation, investigation.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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