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Publication date	2026-03-27
Original Citation	O'Grady, I, Coughlan, E, Feerick, F, Knox, S, Murphy, A & Deasy, C 2026, 'Experiences of paramedic postgraduate interns in the National Ambulance Service, Republic of Ireland: a quantitative survey', BMC Health Services Research, vol. 26, no. 1, 642, pp. 1-10. https://doi.org/10.1186/s12913-026-14302-x
Type of publication	Article (peer-reviewed)
Link to publisher's version	https://www.scopus.com/pages/publications/105038265062 - 10.1186/s12913-026-14302-xhttps://www.scopus.com/pages/publications/105038265062?origin=resultslist
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Download date	2026-09-15 07:53:28
Item downloaded from	https://hdl.handle.net/10468/18774

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Experiences of paramedic postgraduate interns in the National Ambulance Service, Republic of Ireland: a quantitative survey

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Abstract

Background The pre-hospital environment presents significant challenges for novice post-graduate degree paramedic interns as they transition from college into the workforce. Interns are required to perform in high-pressure situations, making critical clinical decisions related to patient care and transport. Although the first year of the paramedic program provides a solid academic foundation, these interns remain early in their professional development. They must now bridge the gap between theory and practice, continually refining their clinical skills and judgment in fast-paced, real-world scenarios.

Aim This study explores the experiences of post-graduate interns, as they transition from college into the workforce as part of a two-person ambulance crew within the National Ambulance Service of Ireland.

Methods A quantitative survey was designed containing 15 items, including Likert-scale and open-ended questions. The survey was reviewed and piloted before being disseminated to the target population of 243 participants. The survey was conducted online between May and June 2024.

Results A total of 53 students took part in the survey. The participants found that the first year of the paramedic degree programme prepared them to manage the following emergencies; trauma 86.8%, medical 92.5%, maternity 58.3%, paediatrics 67.9%, dealing with the elderly population 81.2%, non-urgent low acuity calls 54.7%, dealing with mental health emergencies 41.2%. Participants identified various levels of confidence in starting their post-graduate internship and 98% would have liked to have some clinical support. The majority of participants believe that a form of mentorship would be beneficial during their internship with 26% stated support should last for 1–6 months, 38% 7–12 months, with 36% stating support should be for greater than 12 months. 44% of participants began to feel confident in their interactions with patients within 2–4 months, and 40% within 5–12 months. There were 91% of participants who were confident in their ability to assume the clinical lead role at the end of their internship. Of all participants, 96% stated that having life experience before starting the post-graduate internship is beneficial.

Conclusion This survey examined the experiences of post-graduate paramedic interns as they transitioned from college into the workforce with the National Ambulance Service of Ireland. While the first year of the program provided a strong theoretical foundation, interns identified key gaps in their training most notably in the area of

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mental health emergencies, which was considered significantly underrepresented compared to other curriculum components. Participants also highlighted the value of prior life experience in developing the resilience needed for the role. Importantly, all respondents expressed a clear need for a structured clinical support framework to support a smoother and more confident transition into professional practice.

Clinical trial number Not applicable.

Keywords Paramedic, Student, Intern, Transition, Education, Experiences

Introduction

The pre-hospital environment presents challenges for inexperienced post-graduate paramedic interns entering the field. Many new practitioners have described their transition into the workforce as particularly daunting, fearing that they may not be able to provide adequate care to their patients [1, 2]. Paramedics serve a vital role in the healthcare system by delivering critical interventions promptly. In addition to routinely making several time-sensitive decisions in unpredictable situations, their responsibilities encompass the evaluation, treatment, and secure transportation of patients to medical facilities [3]. Paramedics are also increasingly required to use their clinical decision-making skills to determine, upon completing their assessment, that a patient would be better managed by an alternative healthcare professional rather than being transported to an overcrowded Emergency Department with extended waiting times. For example, patients may be referred to a general practitioner or left at home with follow-up advice [4]. A shortage of resources is a fundamental issue in many decisions, which are carried out in various contexts under stressful and unpredictable conditions [5].

Background

In Ireland, a three-year program is required to train as a paramedic in the National Ambulance Service (NAS). Students who successfully complete the program receive a Bachelor of Science Honours degree from University College Cork (UCC). The Pre-hospital Emergency Care Council (PHECC) also accredits the paramedic training. PHECC is an independent statutory regulator in charge of pre-hospital emergency care education standards, and training in Ireland. To help pre-hospital practitioners treat and manage patients, PHECC publishes clinical practice guidelines (CPGs) and keeps a statutory register of practitioners. PHECC accredits organisations that train and educate clinicians in pre-hospital emergency care.

Unlike many other jurisdictions, NAS presently follows the traditional model of paramedic training, where a student paramedic's training commences with the National Ambulance Service College (NASC) in partnership with a university that accredits the course. NAS students are employed by the ambulance service, receiving a salary while completing their education. This is unlike other full-time paramedic degree programmes, where students must complete their degree programme first before gaining employment. During the first year of training, the education program is divided into several stages. The first stage consists of classroom-based instruction at NASC. This is followed by the second stage, where the student attends work-based learning in hospital environments and ambulance stations. In the hospital placements, students will rotate across areas such as theatre, Emergency Department, and maternity units, where they are required to achieve specific learning objectives. During the ambulance placements, the paramedic students go out on an ambulance as a third person alongside two practitioners, observing the paramedic's role. On completion of this stage, the students return to NASC to complete examinations administered by PHECC. Upon successful completion of these examinations, students advance to undergraduate paramedic status and begin the third stage, which comprises a 15-week placement. Of these, 12 weeks (468 h) involve ambulance placements as a third person, during which students treat patients under the supervision of the ambulance crew. The remaining three weeks are dedicated to a driving course focused on defensive and emergency driving. Upon completion of this stage, students return to NASC for additional classroom instruction and further PHECC examinations.

The second year of the programme begins with what is classed by PHECC as a post-graduate internship (although the students are not post-graduate), facilitating a period of adaptation where the paramedic student (now called an intern) enters the workforce on a relief roster where they will work as part of a two-person crew. Being on the relief roster means interns could work with a different paramedic every shift. The postgraduate internship aims to consolidate the intern's clinical knowledge and competence as a pre-hospital emergency care practitioner. While working, the intern must complete reflective logs after each patient contact and assignments from the university. Furthermore, interns must successfully complete three on-the-road assessments to fulfil the PHECC requirements. At the end of year two of the programme, and completing all PHECC requirements, the paramedic intern qualifies as a PHECC-registered paramedic.

The third year of the programme involves ongoing academic assignments from the university while concurrently working as a paramedic to complete their Bachelor of Science Honours degree.

Currently, Paramedics in Ireland do not deliver Advanced Life Support (ALS) like in other jurisdictions. ALS is delivered by PHECC-registered Advanced Paramedics, which requires further education and training [6].

Research indicates that postgraduate interns may not experience sufficient diversity in their caseloads while in training relative to their future professional practice. This lack of exposure could hinder their ability to effectively refine their skills and fully integrate theoretical knowledge with real-world applications [7, 8]. As a result, it is assumed that a paramedic post-graduate intern who obtains a license to practice in Ireland is prepared to start working as a licensed paramedic on the road. When paramedic students enter the workforce, they are novice practitioners in their field despite completing a rigorous training program [9, 10]. These individuals are still in the early stages of their professional development, where they must continue to refine their skills and judgment in real-world scenarios.

Students face significant challenges when transitioning to the healthcare workforce, as highlighted by research on the emotional impact of the gap between classroom learning and real-world practice [2, 11]. Accurately simulating the complexities of a paramedic's job in an educational setting is difficult [2]. This disconnect can lead to 'reality shock', a term coined by Kramer (1974), which may severely affect novice practitioners' confidence in their ability to do their job [2, 10].

There is a notable lack of both peer-reviewed and grey literature addressing the transition of ambulance staff into professionals [2, 12, 13], specifically in the context of Ireland. Therefore, this study aims to investigate the lived experiences of paramedic students as they navigate the transition from academic training to the workforce to identify key opportunities to enhance this transitional process for the benefit of future paramedic post interns.

Methods

Study design

A quantitative survey was designed containing 15 items, including Likert-scale and open-ended questions (e.g., 'Rate your preparedness for dealing with mental health emergencies'). After initial drafting, an expert panel consisting of an Education Competency Assurance Officer (ECAO), Principal Paramedicine Tutor, Head of Service for Education for NAS, and three of the author's supervisors reviewed the survey for clarity and completeness. Feedback led to clarifying terminology and splitting double-barreled questions. In a pilot survey with 11 recent graduates, further adjustments were made to ensure content validity [14]. The revised survey was then sent back to the expert group for analysis. Once consensus was reached, the survey was sent out to the target population (excluding the pilot group).

Participants

To be eligible for inclusion in the study, participants must have successfully completed their post-graduate internship year (year two of the three-year programme) and passed all examinations required by NAS and the regulating body PHECC.

Data collection

Twelve classes were invited to participate in this research. An online survey was distributed to 243 participants between May and June 2024. The course directors of the Paramedic degree programme sent invitations to the participants on behalf of the researcher via Moodle or WhatsApp, attaching the survey as a PDF. Upon opening the attachment, participants found a cover letter providing an overview of the research and assurances of confidentiality and anonymity. Instructions for accessing the questionnaire link were also included. Additionally, two reminder emails were sent to participants on day 7 and day 14 following the initial invitation to encourage their participation in the online survey.

The survey was administered using "Microsoft Forms," which facilitated the distribution and collection of responses. Once the data was gathered through Microsoft Forms, it was exported to an Excel file for coding and analysis using IBM SPSS 20.

Ethics approval and consent to participate

Ethical approval was granted by the University College Cork Social Research Ethics Committee Reference Number (REERN) (Log 2024-006). Consent was obtained from all individual participants. Participation in this research project was voluntary, and participants were free to withdraw at any stage.

Results

The survey was conducted over 36 days, from May to June 2024. Out of 243 participants who were invited to take part, (53/243) 21.8% responded to the survey. While the 21.8% response rate is typical for online surveys, this introduces possible non-response bias. As respondent demographics were not compared to the entire cohort, our results may not be fully representative. This caveat is included in the study limitations. Given the sample size, inferential statistical tests were not performed. Quantitative data were described and presented in table/graph format using numbers and percentages. Where participants were able to expand on their answers, they are

Table 1 Preparation for dealing with cases

Case Presentations	Agree *n* (%)	Disagree	Neither Agree or Disagree
Trauma	46 (86.8)	4 (7.6)	3 (5.7)
Medical	49 (92.5)	3 (5.7)	1 (1.9)
Maternity	31(58.3)	16 (30.1)	6 (11.3)
Paediatric	36 (67.9)	13 (24.6)	4 (7.5)
Elderly Population	43 (81.2)	8 (15.1)	2 (3.8)
Mental Health Emergencies	22 (41.2)	26 (49)	5 (9.4)
Low Acuity Non urgent calls	29 (54.7)	24 (30.8)	8 (15.1)

Table 2 Ability to manage patients came from: My time working operationally as a post-graduate intern

	N	%
Agree	17	32.1%
Somewhat agree	5	9.4%
Strongly Agree	29	54.7%
Somewhat Disagree	1	1.9%
Strongly Disagree	1	1.9%

Table 3 Ability to manage patients from my time in NASC

	N	%
Agree	15	28.3%
Somewhat agree	10	18.9%
Neither Agree or Disagree	5	9.4%
Disagree	6	11.3%
Somewhat Disagree	4	7.5%

Table 4 Ability to manage patients during my time in clinical placements

	N	%
Agree	15	28.3%
Somewhat agree	14	26.4%
Strongly Agree	9	17.0%
Neither Agree or Disagree	5	9.4%
Disagree	2	3.8%
Somewhat Disagree	2	3.8%
Strongly Disagree	6	11.3%

identified by participant number (e.g. P.1). Open-ended questions were analysed, using descriptive analysis, with codes developed to capture recurring patterns.

For instance, the repeated emphasis on the 'need for mentorship' was coded across several responses and is illustrated by the following participant quote: "A structured system, where interns are assigned a partner who is willing to be a mentor for the first 3 months, who can guide the intern and highlight any issues, strengths and weaknesses". After coding had been completed, a sample of the response texts was independently coded by a second author to ensure reliability. Any discrepancies identified were resolved by consensus.

In evaluating the overall education received by participants during their first year of the paramedic degree program (Table 1), mental health emergencies received the lowest rating at 22/53 (41.2%) followed by low acuity non-urgent calls and maternity. Aside from one Paramedic class in this survey, all other participants could not complete hospital placements due to COVID-19-related restrictions. While the first year provided a solid educational foundation for the Interns, participants felt that their ability to manage patients stemmed primarily from their experiences working as post-graduate intern (Table 2) rather than NASC and clinical placements during year one (Tables 3 and 4).

Regarding their perceptions of the post-graduate internship, 22/51 respondents (43.1%) found that gaining experience in their practice was the most positive aspect. Furthermore, 13/51 (25.5%) expressed appreciation for the opportunity to learn from their colleagues, while 13/51 (25.5%) found it enjoyable to collaborate with different partners and observe various working styles.

P16 "Interaction with a small number of practitioners who were willing to mentor, support and share knowledge and experience, helping to increase confidence and build competence."

This allows for valuable learning opportunities, enabling interns to develop and refine their clinical judgement. Reflection after calls was also recognised as an effective learning strategy for identifying gaps in their knowledge and practice, thereby highlighting areas for improvement.

P9 "having open discussions with colleagues as to how to better improve the care I provide, which helped improve my decision making and treatment planning and my confidence.

When asked how the postgraduate internship could be improved, 21/49 (44%) participants indicated that having a dedicated mentor would have been beneficial. Additionally, 11/49 (22%) of participants emphasised the importance of a more streamlined approach to managing academic assignments from both the university and NASC, particularly when balancing shift work and family responsibilities.

P16 "Lack of any formal mentoring or support arrangements….Being overwhelmed with high shift workload, UCC module workload, NASC portfolio and CPC requirement workload."

P19 "Placement of interns in areas that are far away from their home provides for an environment with additional stress, with time to study, financial pressures and family support."

Due to COVID-19 restrictions, only one class in this study completed hospital placements. This limitation may have contributed to the lower maternity score in Table 1 compared to other case presentations, such as medical or trauma emergencies. Consequently, these

Table 5 Overall confidence starting as a post-graduate

	N	%
I had no confidence and needed support	4	7.5%
I had minimal confidence and needed some support	16	30.2%
I was confident but would have liked some support	32	60.4%
I was very confident and did not require any support	1	1.9%

students did not gain experience in clinical settings, as reported by 3/49 (6%) respondents.

P47 "Missing out on hospital placements due to COVID was disappointing. I feel some call types, e.g., Maternity are some of the calls that I still feel uncomfortable with, which may have been reduced by these hospital placements."

Participants were asked to rate their overall confidence level at the start of their post-graduate internship. Although confidence levels varied at the outset of the post-graduate internship (Table 5), 52/53 (98%) indicated a desire for formal support at the beginning of their internship, which may have eased their transition to the workforce. Regarding the timeframe for achieving comfort in patient interactions, 23/52 (44%) reported that it took between 5 and 12 months to reach this level of comfort (Fig. 1).

When asked about what type of support the participants received when they transitioned to their post-graduate internship, 29/51respondends (56.9%) of respondents identified their primary source of support as originating from peers at the station level. Additionally, 10/51 (19.6%) reported receiving support from other groups, such as managers and ECAOs, in conjunction with peer support. **P15**"Ad-hoc support in the form of informal mentorship from some colleagues, but in general, there was a very low level of clinical support". **P12**"Certain crews were fantastic for imparting knowledge; other crews should have been absolutely avoided due to disinterest." Over time, insufficient support can have a negative impact on the novice practitioner. This may lead to decreased confidence and a reduced ability to make intuitive judgments in complex situations. A further 7/51 (13.7%) stated they received no support at all.

When asked what type of support the Participants would have liked to have had during their PGI 35/52 respondents (67.3%), preferred a more structured approach to mentorship during their post-graduate internship. Additionally, the remaining respondents suggested various alternatives, including debriefing sessions 4/52 (7.7%), meetings with the ECAO (7/52 13.5%) requiring clinical placements, 4/52 (7.7%), PCR reviews 1/52 (1.9%). In comparison, a further 1/52 (1.9%) were satisfied with the support they had received.

P3"I feel a mentor to call and break down big calls would have been beneficial. Both clinically and mentally, the post-graduate internship is tough. It is the first real taste without a safety net of a crew, and you're not always working with a supportive crewmate. Generally great colleagues, but not always".

The consensus among all participants indicated the necessity of structured support through mentorship programs. The majority of respondents 20/53 38%, expressed that these mentorships should ideally range between 7 and 12 months (Fig. 2).

Participants in this study were asked about their age profile (Fig. 3) and the value of life experience before starting the PGI program. The majority of respondents, 51/53 (96.2%), indicated that possessing prior life experience was advantageous before commencing their PGI. Respondents referenced their personal history, including

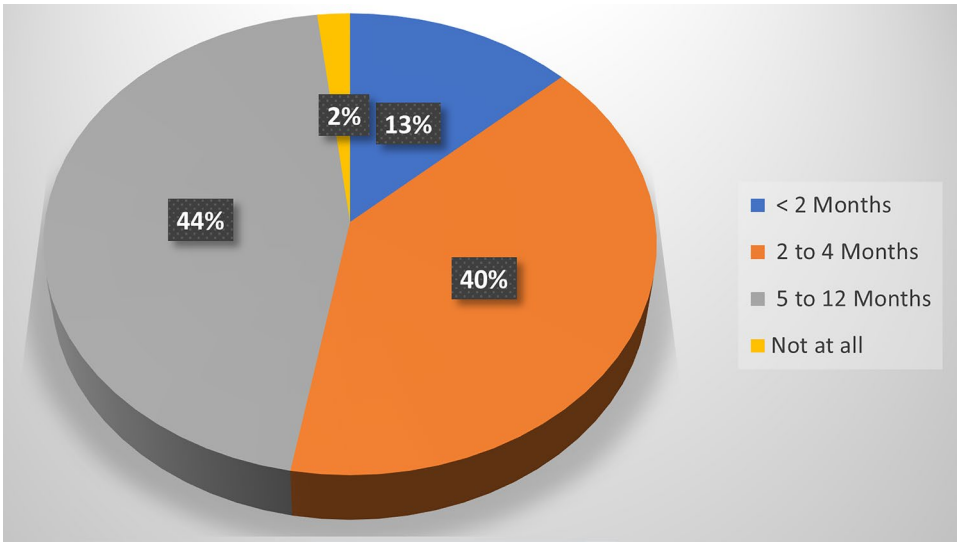

Fig. 1 Timeframe for becoming comfortable with interactions with patients

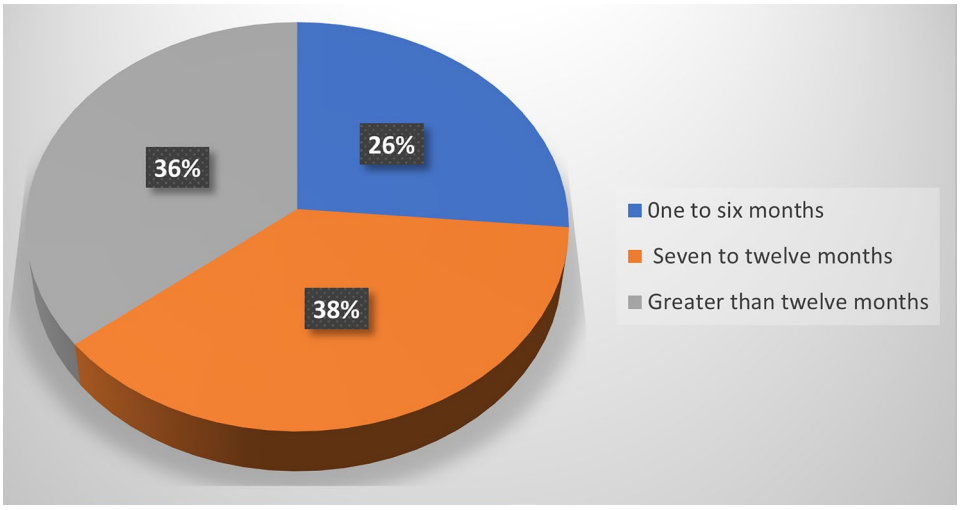

Fig. 2 Necessity of structured support through mentorship programs

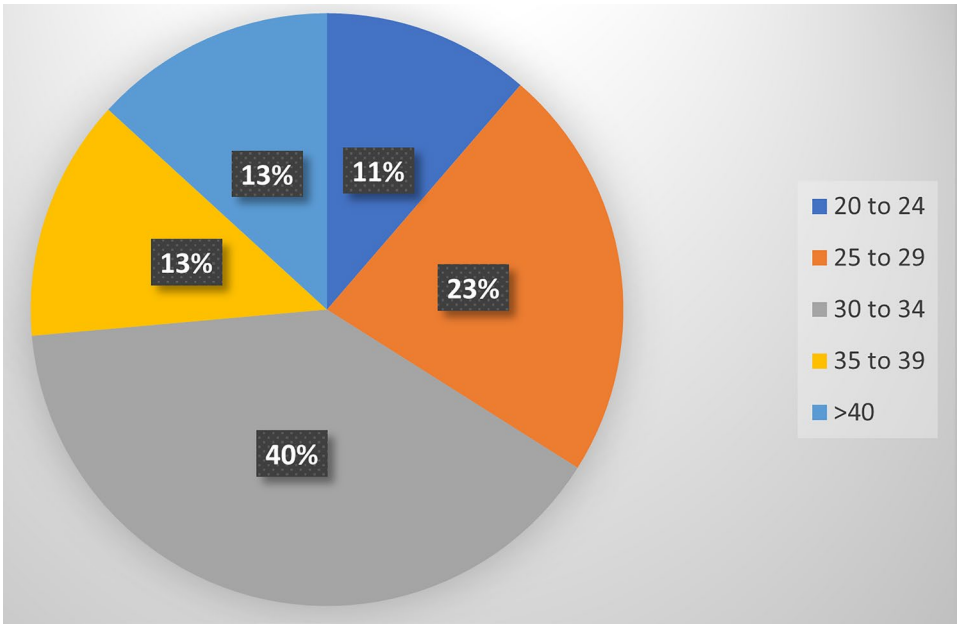

Fig. 3 Age profile

lived experiences, acquired knowledge, and observations, as factors that enabled them to deal with various situations. While 2/53 (3.8%) expressed neither agreement nor disagreement. When prompted to elaborate 19/52 respondents (36.5%) felt it helped them interact with patients with 8/52 (15.4%) noting that prior life experiences improved their communication with patients. Moreover, 14/52 (26.9%) of respondents believed their life experiences contributed to their resilience during difficult circumstances. Participants in this study were only asked about their age profile (Fig. 3).

P2 "In my opinion, life experience before this career creates an advantage in dealing with the public, life experience helps with communication, compassion/empathy, problem-solving skills and good work ethics".

At the end of the PGI, participants were asked how confident they were in assuming the role of clinical lead (Fig. 4).

Discussion

The pre-hospital setting poses difficulties for novice postgraduate paramedic interns starting out in their careers. In various studies, a significant number of newly graduated practitioners have reported that their transition into the workforce presents considerable challenges, often leaving them feeling overwhelmed and inadequately prepared for the demands of their roles [1, 2]. This can leave

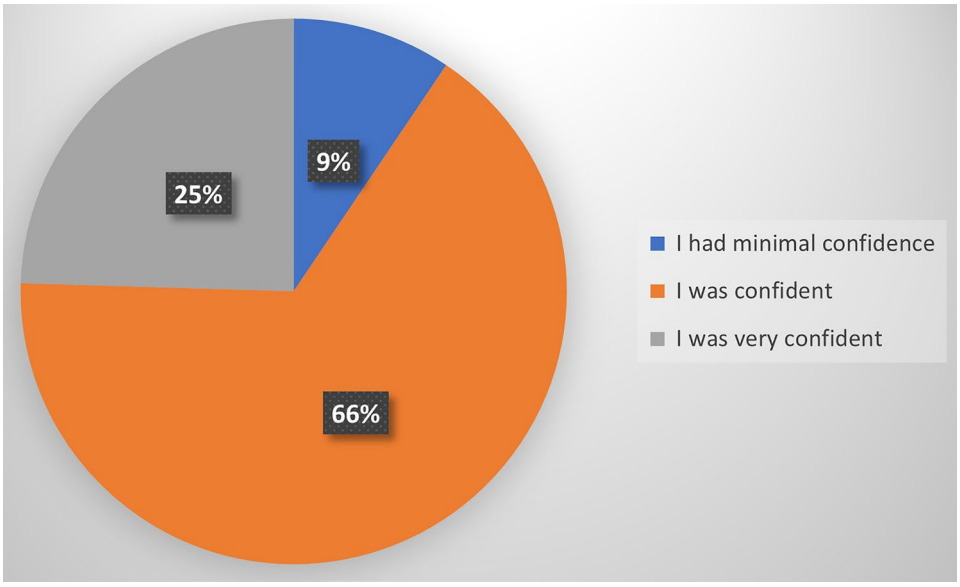

Fig. 4 Confidence in assuming the role of clinical lead

the new intern in a stressful environment, as they must make many clinical decisions for patients, including clinical judgments, treatment and transport decisions.

As new paramedics transition into the workforce, much debate revolves around the theory-practice gap, as novice practitioners often struggle to apply their theoretical knowledge to the complexities of the workplace [1, 2]. Participants in this study found that the first year of the paramedic program did not prepare them well to deal with mental health emergencies, scoring the lowest among other areas. This is not unique to Ireland. In a scoping review into paramedic management of mental health emergencies in Australia, Paramedics feel inadequately trained to handle mental health emergencies despite the rising call volume of such cases [15]. Further research is needed to explore curriculum development within NAS to help staff deal with mental health emergencies.

Out of the twelve classes invited to participate in this study, eleven classes did not receive any clinical hospital placements due to COVID-19 restrictions, which may be a reason why maternity and paediatrics scored low compared to medical and trauma emergencies. During the first year of the paramedic degree programme, the cancellation of hospital placements was not unique to the Irish setting during COVID-19, and, like other jurisdictions, NASC had to come up with alternative ways to ensure that student learning was achieved [16, 17]. Before commencing the postgraduate internship, NASC added an extra week to the end of the undergraduate programme to provide simulation labs, enabling the achievement of learning outcomes without attending hospital placements. Although the students missed out on the benefit of hospital placements, such as maternity. At the time, this was regarded as the better alternative. Hospital placements have since resumed following the lifting of COVID-19 restrictions; however, students now participating in these placements are excluded from this study.

During the postgraduate internship, interns are expected to work the same hours as qualified staff. Managing shift work presents considerable challenges for participants as they strive to meet their academic requirements while balancing family obligations and other social commitments. In earlier paramedic classes, some postgraduate interns were assigned to locations distant from their homes, which could have placed financial strain on those already paying a mortgage. This strain can negatively impact personal relationships and lead to financial difficulties [18]. Currently, postgraduate interns are stationed closer to their residences. Stress from academic workload and work performance can contribute to burnout, which may subsequently impair academic achievement. As a result, students face a complex array of risk factors for burnout and may experience more severe negative outcomes when burnout occurs [19]. Participants in this study expressed a desire for a more streamlined approach to handling the academic assignments from both the university and NASC.

Most participants in this study indicated that their principal patient management knowledge was primarily acquired during their postgraduate internship. As the internship progressed, the majority reported that it typically took them between 5 and 12 months to feel comfortable interacting with patients. Duchscher (2008) identified this phase as the second stage of transition, or the transition crisis stage, during which graduates

confidently perform tasks and assume responsibility for clinical decision-making [20–22]. This confidence can be derived from the knowledge gained in college, hands-on experience in the field with patients presenting similar cases, and observing the practices of other practitioners.

Following the completion of the post-postgraduate internship, a small group of participants reported having limited confidence in their ability to become clinical leads. In a study examining the professional socialisation of paramedics from the UK and Australia (2014), Devenish discussed the post-formal stage of socialisation. During this phase, individuals recognise their new responsibilities as clinical leaders, which may also involve mentoring new interns while navigating the challenges of this evolving role [23]. Although the majority stated they had some confidence in becoming the clinical lead, they were not asked about their specific emotions regarding becoming a clinical lead in this study.

Research has shown that the demands of shift work can lead to physical exhaustion among graduates as they strive to meet workplace expectations [20, 24]. Especially when coupled with the need to fulfil academic requirements while balancing family responsibilities and other social commitments. In addition to navigating the clinical demands of their role and the academic obligations of their program, interns must also cultivate essential soft skills, particularly in patient communication. Many participants indicated that prior life experience was beneficial to their post-graduate internships, with the largest age group being 30 to 34 years old. A 2011 study in Australia suggested that paramedic graduates with backgrounds in nursing or other life experiences communicate better with patients [7]. The study participants emphasised that maturity, resilience, teamwork, and compassionate communication are essential and develop over time. However, the significance of life experience should be considered alongside the development of attitudes and skills rather than merely attributing it to age.

Graduate paramedics in the UK and Australia described their experience of transitioning into the workforce as feeling out of their depth, stressful, a significant learning curve, and being "thrown in the deep end" [25]. Within NAS, there is no formal mentorship, preceptorship, or clinical supervision for new interns entering the workforce. On the post-graduate internship, stating that the primary source of support they received came from their peers at the station level. This informal support depends on whether staff members are interested in supporting new interns, whereas others may not have the same interest.

Supervised practice, although not a new phenomenon within healthcare, is an approach that assists practitioners in reflecting on behaviours and supports positive working environments that increase the quality of patient care [20, 26, 27]. Introduced correctly, it reduces staff stress and burnout and promotes greater resilience and coping mechanisms when working in complex environments [20, 26]. New graduates who are less supported are more likely to feel overwhelmed, scared, self-doubt and fearful, which can be amplified within the first four months of the transition period [28]. This underscores the vital need for robust support systems to assist these new entrants in their professional journey. Mentorship is widely recognised as essential to clinical healthcare and education, and the quality of student learning both nationally and internationally [29–31]. The BPA (2008) acknowledges the critical role of clinical mentors in providing students with advice and direction and the eventual impact on the calibre of aspiring paramedics and their practice [29, 32].

Although the terms "preceptor" and "clinical supervisor," "instructor," and "mentor" are interchangeable, "preceptor" is the most appropriate title for a paramedic working with a learner because of the paramedic work setting and workplace relationship [33, 34]. The preceptor offers, the intern direction, assistance, instruction, and reflection [33]. Preceptorship allows the flexible use of knowledge and the ability to generate new solutions and learn from daily problem-solving as a crucial clinical decision-making process [27, 33, 34]. Having a dedicated colleague as a preceptor who interacts closely with the intern to discuss calls or issues at the station level is an important mechanism in developing the new graduate [11, 26]. Regardless of what model is used Reid et al., compared the views of paramedics in Australia and the UK regarding the preparedness of graduate paramedics, new graduates require a period of supervised practice that is essential for developing clinical decision-making skills and organisational understanding, regardless of the length of their clinical experience [35].

Limitations

The findings suggest that many interns perceive formal support structures as lacking, echoing previous work in other healthcare disciplines. However, the limited sample and response rate constrain generalisability. Future research should explore whether these patterns persist in larger or more diverse samples, particularly as the landscape of paramedic education evolves post-pandemic. This study did not examine participants' gender, which could have provided additional insights into varying experiences.

Conclusion

This survey captured the experiences of paramedic interns in the Republic of Ireland as they started their operational journey within the National Ambulance Service. The pre-hospital setting presents challenges

for novice post-graduate paramedic interns, who often feel out of their depth as they transition into the workforce. Many report that they got a good foundation during the first year of the paramedic degree programme; however training and education in managing mental health emergencies is lacking. The cancellation of hospital clinical placements due to COVID-19 exacerbated challenges in areas like maternity and paediatrics. Participants faced difficulties balancing shift work with the academic demands of the postgraduate internship, which can have a negative effect on the work-life balance. This study highlighted a significant lack of formal mentorship or support within the National Ambulance Service for new graduates entering the workforce. Further research is needed to explore curriculum improvements for managing mental health emergencies and the development of a support programme for new graduates.

Abbreviations

NAS	National Ambulance Service
UCC	University College Cork
PHECC	Prehospital Emergency Care Council
CPG's	Clinical Practice Guidelines
NASC	National Ambulance Service College
ALS	Advance Life Support
ECAO	Education and Competency Assurance Officer
BPA	British Paramedic Association

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-026-14302-x.

Supplementary Material 1

Author contributions

All Authors contributed to the study's conception and design. Material preparation, data collection and analysis was preformed by IOG. IOG along with FF reviewed the responses from the pilot study, and any issues surrounding the identified questions were analysed and corrected. The revised survey was then sent back to EC, SK and CD the expert group for analysis. The first draft was written by IOG and all authors commented on previous versions of the manuscript.

Funding

None.

Data availability

All data and material used and analysed during the current study will be available from the corresponding author on request.

Declarations

Ethics approval and consent to participate

Ethical approval was granted by University College Cork Social Research Ethics Committee (log number 2022-128). All participants provided informed consent before they commenced the survey and were assured of confidentiality and anonymity in the invitation letter. The study was conducted in accordance with the ethical standards of the institutional research committee and the Declaration of Helsinki and its later amendments or comparable ethical standards.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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Received: 27 May 2025 / Accepted: 28 February 2026
Published online: 27 March 2026

References

1. Phillips C, Esterman A, Smith C, Kenny A. Predictors of successful transition to Registered Nurse. J Adv Nurs. 2013;69(6):1314–22.
2. Kennedy S, Kenny A, O'Meara P. Student paramedic experience of transition into the workforce: A scoping review. Nurse Educ Today. 2015;35(10):1037–43.
3. Caroline NL, Surgeons AAOO. Nancy caroline's emergency care in the streets. Jones & Bartlett Learning; 2017.
4. O'Hara R, Johnson M, Siriwardena AN, Weyman A, Turner J, Shaw D, et al. A qualitative study of systemic influences on paramedic decision making: care transitions and patient safety. J Health Serv Res Policy. 2015;20(1suppl):45–53.
5. Perona M, Rahman MA, O'Meara P. Paramedic judgement, decision-making and cognitive processing: a review of the literature. Australasian J Paramedicine. 2019;16:1–12.
6. Knox S, Cullen W, Dunne C. Continuous Professional Competence (CPC) for Irish paramedics and advanced paramedics: a national study. BMC Med Educ. 2014;14:1–7.
7. Lazarsfeld-Jensen A, Bridges D, Loftus S. Command culture and autonomous paramedic practice. The Transitions Project Report Bathurst: Charles Sturt University. 2011.
8. Carver H. The paramedic preceptor experience: improving preparation and support. 2016.
9. Benner P. From Novice To Expert: Excellence and Power in Clinical Nursing Practice. AJN Am J Nurs. 1984;84:1480.
10. Graf AC, Jacob E, Twigg D, Nattabi B. Contemporary nursing graduates' transition to practice: a critical review of transition models. J Clin Nurs. 2020.
11. Huot K, editor. Transition support for new graduate paramedics; 2013.
12. Hanna H, Jordan Z, Peters MD. Experiences of learning, development and preparedness for clinical practice among undergraduate paramedicine students, graduate/intern paramedics and their preceptors: a systematic review protocol. JBI Evid Synthesis. 2018;16(12):2253–9.
13. Phillips P, Trenoweth S. Crossing the 'flaky bridge'-the initial transitory experiences of qualifying as a paramedic: a mixed-methods study. Br Paramedic J. 2023;8(1):18–27.
14. Creswell JW, Creswell JD. Research design: qualitative, quantitative, and mixed methods approaches. Sage; 2017.
15. Parent A, Smith R, Townsend R, Johnston T. Mental health education in Australian paramedic curriculum–a scoping review. Australasian J Paramedicine. 2020;17:1–9.
16. Perkins A, Kelly S, Dumbleton H, Whitfield S. Pandemic pupils: COVID-19 and the impact on student paramedics. Australasian J Paramedicine. 2020;17:1–4.
17. Whitfield S, Perkins A, Kelly S, Dumbleton H. Uncharted waters: the effects of COVID-19 on student paramedics. Australasian J Paramedicine. 2021;18:1–7.
18. Duchscher JEB, Cowin LS. The experience of marginalization in new nursing graduates. Nurs Outlook. 2004;52(6):289–96.
19. Stein C, Sibanda T. Burnout among paramedic students at a university in Johannesburg, South Africa. Afr J Health Professions Educ. 2016;8(2):193–5.
20. Duchscher JEB. Transition shock: the initial stage of role adaptation for newly graduated Registered Nurses. J Adv Nurs. 2009;65(5):1103–13.
21. Hallaran AJ, Edge DS, Almost J, Tregunno D. New nurses' perceptions on transition to practice: A thematic analysis. Can J Nurs Res. 2023;55(1):126–36.
22. Jepsen K, Lindström V, Wihlborg J, HÖrberg A. Newly employed nurses' transition into their new role in the ambulance service–a qualitative study. BMC Nurs. 2024;23(1):93.
23. Devenish A. Experiences in becoming a paramedic: a qualitative study examining the professional socialisation of university qualified paramedics [PhD thesis]. Queensland University of Technology; 2014.
24. Sheridan S, Pope R, MacQuarrie AJ, MacPhee RS, Rayner R, Stack H, et al. The physical preparation of paramedicine students for the paramedic role: a scoping review. Paramedicine. 2025:27536386251405917.

25. Devenish A, Clark M, Fleming M. Experiences in becoming a paramedic: the professional socialization of university qualified paramedics. Creative Educ. 2016;7(6):786–801.
26. Duchscher JB, Windey M. Stages of transition and transition shock. J Nurses Prof Dev. 2018;34(4):228–32.
27. Markey K, Murphy L, O'Donnell C, Turner J, Doody O. Clinical supervision: a panacea for missed care. J Nurs Adm Manag. 2020;28(1):1–5.
28. Wakefield E. Is your graduate nurse suffering from transition shock? J Perioperative Nurs. 2018;31(1):47–50.
29. Williams A. The strategies used to deal with emotion work in student paramedic practice. Nurse Educ Pract. 2013;13(3):207–12.
30. Cutcliffe JR, Hyrkäs K, Fowler J. Routledge handbook of clinical supervision: Fundamental international themes. Routledge London, England; 2011.
31. Snowdon DA, Sargent M, Williams CM, Maloney S, Caspers K, Taylor NF. Effective clinical supervision of allied health professionals: a mixed methods study. BMC Health Serv Res. 2020;20(1):1–11.
32. Association BP. A curriculum framework for ambulance education. Bridgewater: British Paramedics Association; 2006.
33. Van Noordenburg A, Jacob E, Devenish S. Capabilities for the paramedic preceptor role: a scoping review. Paramedicine. 2024:27536386241305157.
34. Edwards D. A grounded theory study of the preparedness of paramedics to undertake the role of preceptor in the clinical setting. University of Tasmania; 2019.
35. Reid D, Street K, Beatty S, Vencatachellum S, Mills B. Preparedness of graduate paramedics for practice: a comparison of Australian and United Kingdom education pathways. Australasian J Paramedicine. 2019;16:1–11.

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