

Original Research Article

Self-perceived preparedness of junior doctors for internship in regional far North Queensland

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ABSTRACT

Background: Objective of the study was to determine the self-perceived preparedness and concerns of newly graduated junior doctors beginning their internship year in a regional based hospital in far North Queensland.

Methods: A questionnaire investigating the basic demographics, future vocational intentions, perceived medical strengths, and greatest hopes and fears for the upcoming intern year was formulated. The survey was undertaken by all interns starting work in 2023 at Cairns Hospital in regional Far North Queensland. Basic statistical analysis was conducted in Microsoft Excel.

Results: There were 52 total participants. Overall, 40 (76.9%) were aged 23 to 32 years, 45 (86.5%) had graduated from a Queensland university, and 25 (48.1%) had previous exposure to the medical field prior to internship, through a family member or previous work. New interns felt least prepared for discussions regarding dying and palliative care, N=14 (26.9%) at least “prepared”, certification of death, N=11 (21.2%) at least “prepared” and nasogastric tube insertion, N=14 (26.9%) at least “prepared”. The main concerns were feeling unsupported (N=31, 59.6%), tiredness and stress (N=28, 53.8%), and interacting with rude staff or experiencing bullying (N=27, 51.9%). Overall, interns felt least prepared for surgical (N=21, 40.4%) and after-hours rotations (N=19, 36.5%).

Conclusions: The intern year can be daunting for recent graduates, particularly feeling a sense of isolation and fatigue, heightened by potential staff conflict and high-pressure settings in surgery and after-hours. Better preparation and support should be provided for interns to ensure a comfortable transition from university to work to optimise safe and effective patient care.

Keywords: Interns, Preparedness, Concerns, Internship, Far North Queensland

INTRODUCTION

The transition from medical student to intern can be a polarising journey for medical graduates. This professional evolution represents the culmination of many years of preparation and study, and accustoming to the new role and its responsibilities can provoke both

excitement and anxiety.¹ This dichotomy may be amplified in a regional setting, where greater challenges, fewer resources and potentially more complex patient conditions require an intern to be particularly well-prepared for work.² This is evident in Cairns Hospital, located in Far North Queensland, Australia, which sees an average of 22,000 patients each quarter, presenting

from within the region and further afield, including the Cairns Hinterland, Daintree and Torres Strait.³ Geographically remote facilities such as Cairns Hospital require junior staff to feel well prepared for the management of complex patients, who often require a multidisciplinary approach for best care. A study conducted in 2011 assessed preparedness for interns in a metropolitan Australian setting.¹ It is essential that interns feel well-prepared for the diverse range of tasks which may be required of them.⁴ However, knowing which specific tasks are of most concern, along with realising their preparedness, greatest fears and future desires has yet to be assessed within a regional hospital like Cairns.

A systematic review conducted by Surmon et al identified ten themes of preparedness, including competence, future, disconnection, uncertainty, teamwork, workload, adjustment, prior experience, learning and curriculum.⁵ This review provided an insight into the components that may concern the interns, potentially utilising such information to create a more seamless transition.⁵ However, the review is limited in understanding the specific criteria for concerns and fears of interns starting at a regional hospital, where more variable challenges may be encountered for newly graduated doctors.

Aim and objectives

Objective was to obtain a better understanding about the thoughts of the new interns starting their careers at Cairns Hospital. The study aims to understand the basic demographics of the newly graduated doctors, evaluate the self-perceived preparedness of interns in relation to tasks including patient assessment, communication, documentation and procedural skills and outline the greatest strengths and concerns of interns ahead of their first year of work as doctors.

METHODS

This was a qualitative study completed at Cairns Hospital, Cairns Queensland, Australia. Qualitative data was collected from all new interns (first-year medical graduates) starting work at the institution prior to the commencement of the clinical year. The sample size was 52, the entire intern cohort. We ensured participation of the entire group by involving the hospital's medical education unit to distribute the survey during a protected education session. Qualitative data was collected via a survey of 12 questions containing a mixture of scoring and multiple choice was created using the online platform Survey Planet.⁶ The questions were adapted from a previous similar study undertaken in a metropolitan Australian setting.¹ However, the survey was trialled among a study group of end-of-year interns to ensure the questions were relevant to the local health service and had no bias that would impact the survey.

All new interns starting their first clinical year at Cairns Hospital in January of 2023 were asked to complete the

survey using their mobile or laptop device via a QR (quick response) code system. This was done under supervision during their hospital orientation session. The survey (Appendix) was divided into demographics, vocational experience, career intentions, preparedness, and the greatest hopes and fears for the upcoming year. Part A: Interns were required to complete basic demographic questions. These were multiple choice style questions requiring participants to select the one response that suited them. Part B: Interns were required to complete questions relating to past, present and future vocational experience and intentions. Participants were allowed to further explain their response, if necessary, with a one sentence justification. Part C: Interns completed a Likert-style survey question regarding their preparedness for tasks related to four domains: patient assessment, communication, documentation and procedural skills. Each theme question had a five-point scale whereby 1 represented "Not at all prepared", 2 "Poorly prepared", 3 "Somewhat prepared", 4 "Prepared" to 5 representing "Well prepared". Part D: Interns responded to questions relating to their hopes, desires, and fears about their upcoming intern year. Part D allowed participants to select up to three responses, ensuring they expressed multiple feelings during this part of the survey. All survey responses were anonymous and abided by the ethics approval. The responses were manually entered into an Excel spreadsheet from which standard statistical analysis was conducted.

RESULTS

There were a total of 52 participants in the study, which comprised of the entire cohort of new interns. Of these, 2 (3.8%) were aged younger than 23 years, 40 (76.9%) were aged 23 to 27 years, 8 (15.4%) were aged 28 to 32 years, and 2 (3.8%) were older than 32 years. 21 participants (40.4%) graduated from James Cook University, 14 (26.9%) graduated from University of Queensland, 10 (19.2%) graduated from Griffith University and the remaining 7 (13.5%) graduated from other universities within Australia. No participants graduated from international universities. 20 participants (38.5%) were placed at Cairns and Hinterland hospital and health service (CHHHS) during their university medical training. Of the 52 participants, 25 (48.1%) had prior exposure to the medical field outside of university. Among these participants, 18 (72%) had previously worked in a medical-related field, most commonly allied health and nursing, and 6 (24%) had family members who had an occupation in the medical field. Of the participants, 22 (42.3%) intended to pursue a career in critical care (defined as including anaesthetics, intensive care medicine and emergency medicine), 17 (32.7%) planned to train in General Practice and 14 (26.9%) reported intent to train in Rural Generalism. The remaining intended specialty training pathways included Paediatrics (N=12, 23.1%), Psychiatry (N=11, 21.2%), Medicine (N=10, 19.2%), Surgery (N=9, 17.3%),

Obstetrics and Gynaecology (N=7, 13.5%) and Radiology (N=1, 1.9%).

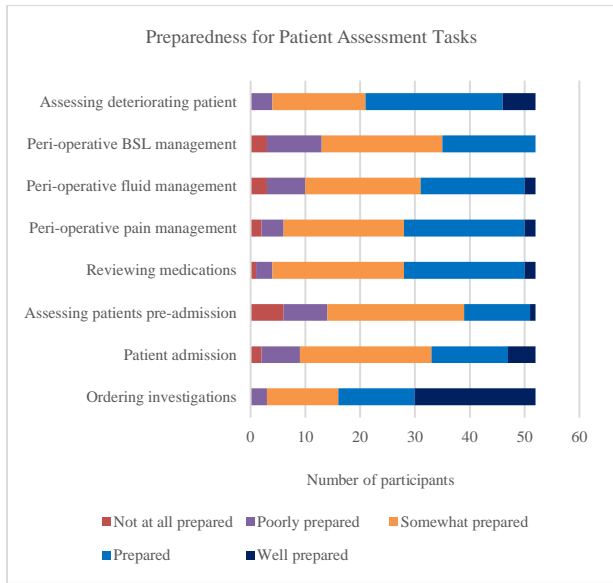


Figure 1: Intern self-perceived preparedness for various patient assessment-related tasks (BSL: blood sugar level) (n=52).

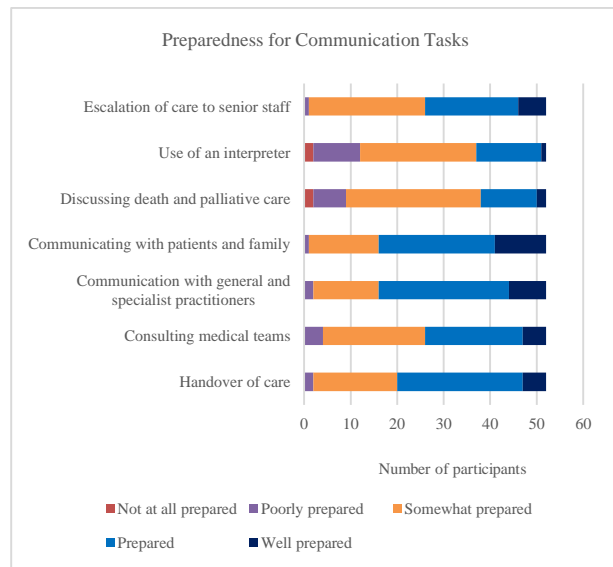


Figure 2: Intern self-perceived preparedness for various communication-related tasks (n=52).

Preparedness

The survey identified the preparedness for varying tasks prior to starting the intern year. Qualitative results determined the main areas in which interns felt most prepared, and areas where they felt least prepared. The results are shown in bar graph form for the various domains of patient assessment (Figure 1), communication (Figure 2), documentation (Figure 3) and procedural skills (Figure 4).

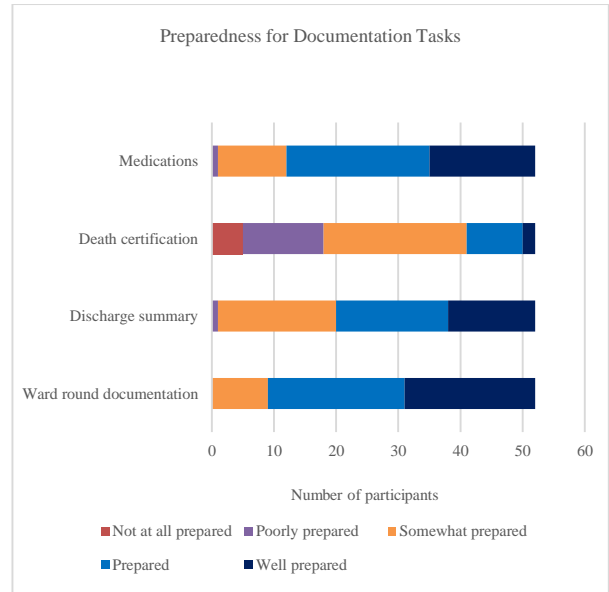


Figure 3: Intern self-perceived preparedness for various documentation-related tasks (n=52).

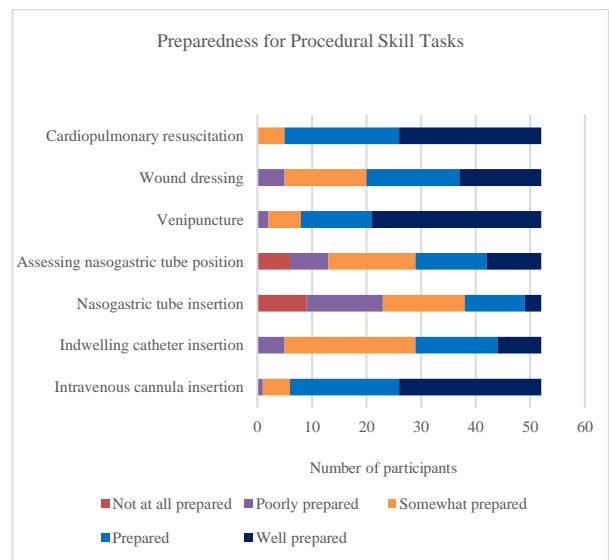


Figure 4: Intern self-perceived preparedness for various procedural skill tasks (n=52).

Hopes and fears

In this intern cohort, the aspects of starting work as a doctor which were perceived as most desirable were the opportunity to interact with and help patients (63.5%), earning a reliable income (51.9%), experiencing the collegiality of working in a team (50%) and being trained by their seniors to acquire new skills and gain knowledge (40.4%). In contrast, the perceived challenges that interns feared they would face were ranked as follows: feeling unsupported or alone on the ward (59.6%), fatigue and stress (53.8%), bullying and hostile interactions with other staff members (51.9%), management of complex pathology (46.2%) and a lack of familiarity with medical conditions and surgical procedures (28.8%). The rotations

which appeared to cause the most concern for interns were surgical and after-hours/night shift rotations, with 40.4% and 36.5% respectively reporting these terms as their most feared.

DISCUSSION

This study outlined the self-perceived preparedness and readiness of newly graduated doctors beginning their intern year at a regional Australian hospital. The participants' ages, university training and prior medical experience varied, but all were beginning their medical career at Cairns Hospital. The study aimed to use information regarding interns' concerns, fears and desires about their impending provisional year to better shape orientation activities, ease unnecessary stress and prepare the interns to ensure excellent patient care. Most of the participants were aged 23 to 27 years which is in-keeping with the age of graduation of secondary school and the length of medical degrees in Australia. Most of the participants graduated from medical schools in Queensland, with local students traditionally being given priority internship to hospitals within the same state in Australia. Almost all participants who graduated from James Cook University completed their clinical years in the region's healthcare system. Gupta et al acknowledged that James Cook University School of Medicine aims to prepare their graduates for work within a rural setting, including caring for a greater proportion of Indigenous patients.⁸ Almost half of the participants had previous experience in healthcare, mostly through previous occupational exposure through allied health or having family members in the medical field. The participant sample size was not large enough to determine whether there was a significant difference in preparedness between those interns who either undertook medical training at Cairns Hospital or those who had previous experience in healthcare. Further studies with greater participant numbers and across multiple centres may be able to determine this.

The majority of interns were most concerned about feeling unsupported or alone on the ward, experiencing tiredness and stress, and interacting with staff who were rude, angry or bullying. Petrie et al similarly noted the impacts of work stress for junior doctors through a qualitative study within Australian hospitals.⁸ The workplace stresses that are experienced within a job in healthcare can significantly impact an individual's mental health. This is heightened for junior members of a team who are particularly early in their formation of a professional identity.⁸ Our survey identified a common theme of concern revolving around a sense of isolation and alienation at work. This is reflected in the number of interns who perceived surgical and after-hours as the most daunting. Surgical terms typically require interns to manage inpatients with less oversight as consultants and registrars are typically engaged in outpatient and operative duties. After-hours and night rotations are usually devoid of direct supervision and interns are

required to troubleshoot ward scenarios with help from a senior a phone call away. Both rotations are highly stressful environments, with young doctors potentially feeling inexperienced within a surgical theatre, afraid of staff interactions, whilst also feeling concerned about making incorrect decisions whilst working independently overnight. The anxiety and discomfort experienced during these challenging periods has the potential to negatively affect junior doctor mental health which may ultimately be to the detriment of patient care.⁹

Ihara et al described similar stresses for doctors within a Japanese context, with high-pressure settings creating work-related stress, physician burnout and psychological impacts on both professional and personal lives.¹⁰ It was identified that the Tokyo hierarchical system within the hospital does add to the pressures, a cultural consideration that may differ from the Australian context.¹⁰ While rural Australian hospitals have challenges such as decreased access to resources and distance, having a smaller number of staff compared to urban hospitals may provide benefits for social interaction and cohesiveness.¹¹ Further studies comparing intern confidence and preparedness in rural settings compared to urban settings should be conducted in the future. The data we have collected highlights the areas where new interns feel unprepared. While concern for after-hours shifts can be explained by a sense of isolation, of particular concern is the fear of surgical rotations. Future research should aim to determine the reason for this, which may possibly be related to surgical teaching at the university level. It is possible that the final months of study or placement could be better utilised to prepare final year medical students more efficiently prior to graduation. The areas of death, dying and palliative care, relating to communication and certification were identified as common areas of unpreparedness. In addition, nasogastric tube placement and assessment were also noted by the interns as feeling the least prepared for. This can be utilised to tailor orientation activities for new interns, focusing on these areas and ensuring that interns feel well supported and prepared for their first clinical year.

Limitations

There are always limitations when completing a qualitative study, with a smaller sample size and potential bias through the survey method. Specifically, our study was a voluntary, untimed survey, with some students potentially rushing the survey and contributing to misleading results.¹² This may be improved in future studies by completing the survey under a supervised, timed meeting, or even expanding the survey study to involve small group qualitative sessions, able to generate discussions and obtain greater qualitative data.¹³ It would also be useful to repeat an assessment by similar methods at the completion of various intern rotations to better evaluate whether these initial concerns and self-perceived preparedness were truly reflective of what was

experienced by the interns. These may heighten the outcomes of the survey and provide greater insight for future preparedness and easing concerns amongst newly graduated doctors.

CONCLUSION

This study presented the self-perceived preparedness and concerns of newly graduated doctors starting their internship year in far North Queensland in Australia. The main concerns related to stress, feeling unsupported and managing bullying in the workplace, especially during high stress rotations like surgery and after-hours shifts. With these results, improvements to final year medical school and hospital orientations may be better tailored to ensure interns feel comfortable and confident prior to their first clinical year as a doctor and optimise patient care. Future research should be undertaken to compare preparedness between sub-groups and across other areas within Australia.

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