

Perceptions of intern work readiness, and its impact on education and training in a rural setting

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Abstract

This research seeks to understand what work readiness means to doctors commencing a rural internship, and use this information to develop an orientation program and ongoing health and wellness support program for doctors commencing a placement in rural Victoria.

It is well understood that interns feel out of their depth when it comes to the clinical care of patients. It has been noted that interns perceive a requirement of greater skills and knowledge during rotations within a rural context due to a greater clinical responsibility, in comparison to their metropolitan counterparts. These experiences are often escalated during the first term of a rural internship, with interns and their supervisors citing different clinical and behavioural standards associated with intern “readiness”.

This research was informed by current literature defining work readiness, and the associated knowledge, skills and behaviours that contribute to this definition. Using this information, we developed a work readiness survey to identify the perceived skills and attributes interns training in a rural setting consider to be the greatest benefit in preparing for their first year of postgraduate study in medicine. Specifically, these identified tasks were rated on intern’s preparedness and their confidence in completing these tasks.

The research compared survey data from interns, HMO’s, senior medical staff and supervisors to establish a group of skills and behaviours that reflect those consistently encountered by interns in a rural health service.

The study found that interns within a rural setting are considered “work ready” at the commencement of internship. Although there were differing levels of opinion between interns and supervisors regarding an intern’s level of preparedness within listed skills and behaviours, there was no data to support significant levels of concern, which could be identified within rural health service orientation and intern education programs.

Aims

- Define what work readiness means to junior doctors as described in the literature.
- To understand and compare the perceptions of work readiness in the rural intern between three groups: - doctors commencing their intern year, doctors having just completed their intern year and senior medical staff.
- To compare the lived experience of work readiness identified by the rural intern with the definitions identified in the literature.
- Identify gaps in skills and procedures relating to intern preparedness.
- Utilise the data to recommend skills and behaviours to be included in an intern orientation program and ongoing health and wellness program that addresses and supports work readiness in rural interns.

Background

There is limited evidence of current studies undertaken regarding intern readiness, particularly in a rural setting. A review of medical intern training, commissioned in 2015 by the Australian Health Ministers Advisory Council (AHMAC), recommended that “The internship should have entry requirements that reflect agreed and defined expectations of work-readiness that graduates must meet before commencing. Specification of the expectations and certification of work-readiness should be undertaken collaboratively by employers, universities and the Australian Medical Council within 1-2 years.” (1).

In September 2016, Melbourne hosted a National Intern Work Readiness forum, involving key stakeholders who discussed the findings of the AHMAC review. The clear focus on defining skills that graduates need on day one when transitioning to the workplace, and to be recognised as ‘work ready’. The forum created a list of Procedural skills, Clinical knowledge, Professional behaviour and Interpersonal skills, mapped from the AMC Graduate Outcome Statements (2). These skills and behaviours were used to survey interns and their supervisors regarding perceived and actual “work readiness” in both metropolitan and rural Australia. Results indicated a significant difference in Intern’s ability to display and /or undertake the skills and behaviours listed.

This research focussed explicitly on interns and supervisors within rural Victoria, and examined the perceptions of work readiness on the development and implementation of orientation and education programs.

Method

Cohort

43 Interns and 31 Supervisors with a geographical distribution of 100% rural or sub-regional were invited to participate in the study (Appendix 1). All participants were currently employed within the Public Sector. The total response rate was 45%.

Survey design

Surveys were designed to establish if there were any differences between interns and supervisors perception of intern readiness, and if described skills and behaviours were at a level consistent with Supervisors expectations of Internship.

Participants were sent an electronic survey (*Appendix 2*) and (*Appendix 3*), together with a Plain Language Statement (*Appendix 4*). The electronic survey utilised participation as implied consent to participate in the research. Both groups (Junior Doctor and Supervisors) were asked to rate their general feeling of preparedness entering the workforce, and their ability to perform skills and demonstrate behaviours (derived from Australian Medical Council Graduate Outcome Statements (2) and AAMC 13 Entrustable Professional Activities and National Intern Work readiness forum (3), using a six point Likert scale. Both groups were also asked to provide skills and behaviours via free text that would have been useful to have at the commencement of internship.

Ethics Approval

University of Melbourne Human Ethics Advisory Group

Ethics ID: 1749944.1 18/09/2017

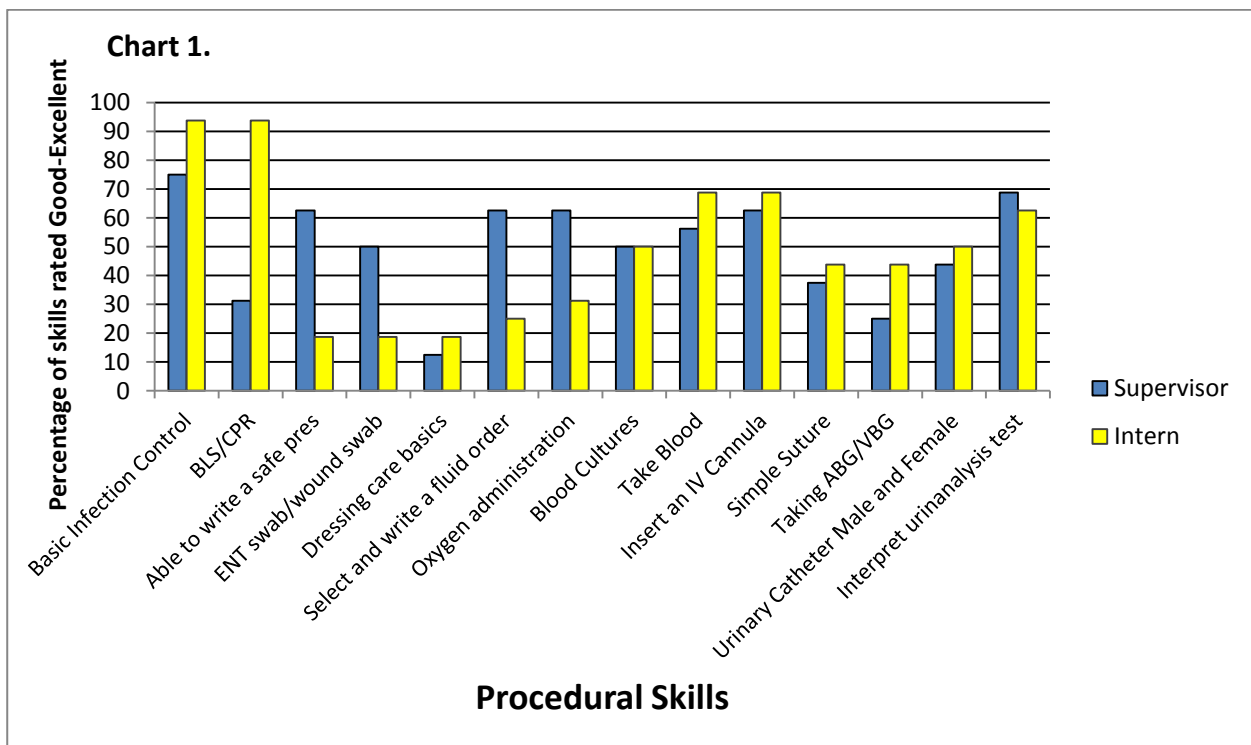
Results

Procedural skills category compared the proficiency of Interns in areas of procedural skills including Infection Control, BLS, Prescribing, Cannulation, ABG/VBG etc. The list of skills were recommended by the National Intern Work Readiness Forum (5) as procedural skills required by Junior Doctors on day one of Internship.

Supervisors thought Interns were most proficient at Basic Infection Control, which was consistent with Interns equally rating Basic Infection Control and BLS/CPR as their most proficient skills.

Supervisors thought interns needed to be more proficient in dressing care basics (12.5%) and taking ABG/VBG (25%); whilst Interns felt they needed to be more proficient in writing safe prescriptions (12.5%), ENT wound swab (12.5%) and dressing care basics (12.5%).

See Table 1. (Appendix 5)

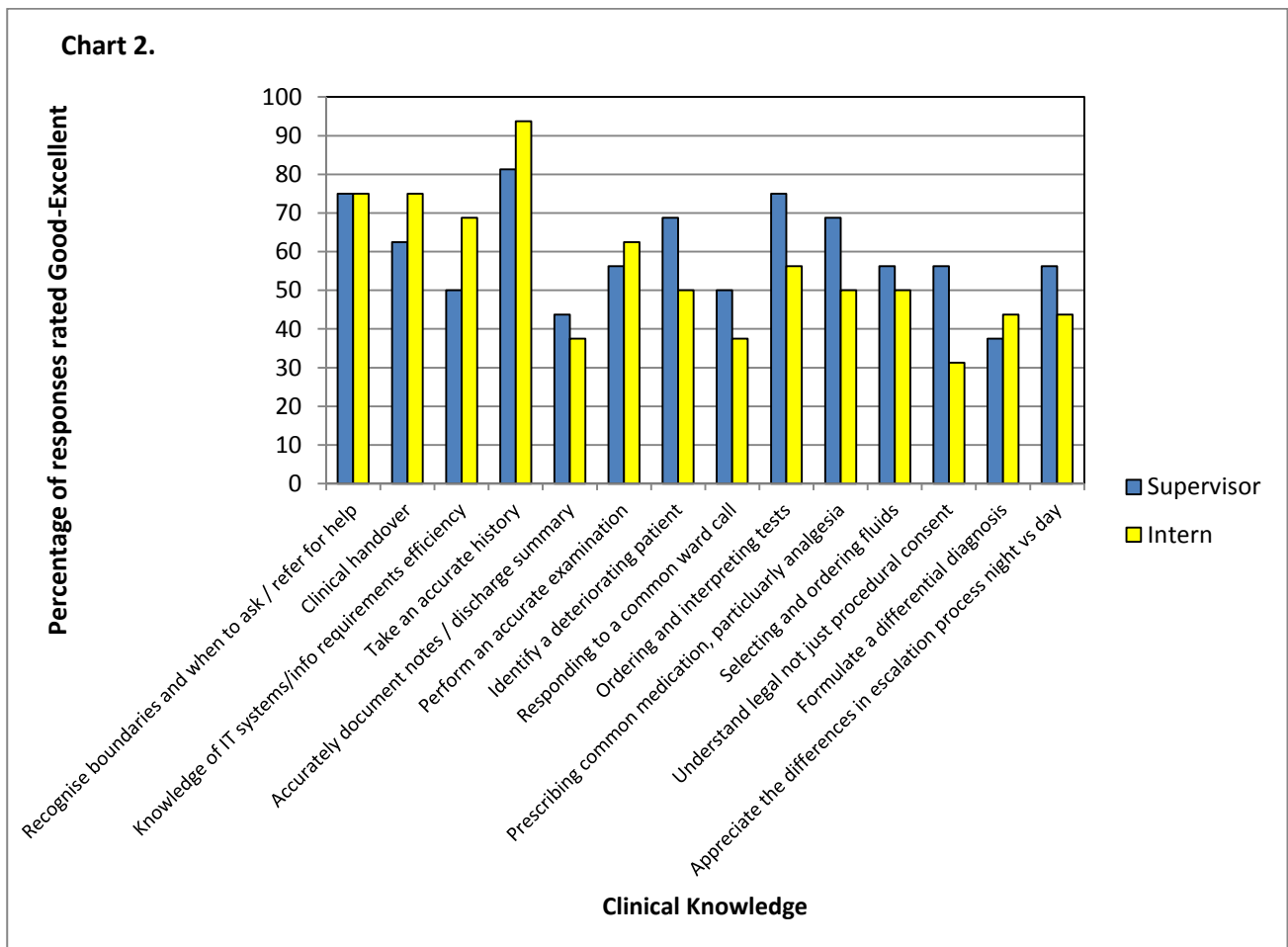


Clinical knowledge category compared areas which included clinical skills (taking accurate history, identification of a deteriorating patient, ordering and interpreting tests) and ward based knowledge (recognition of boundaries, IT systems and consent). The list of skills pertaining to clinical knowledge was recommended by the National Intern Work Readiness Forum (5) as skills required by Junior Doctors on day one of Internship.

Supervisors thought Interns were most proficient at taking an accurate history (81.25%). This skill was consistent within the Intern group with 93.75% of Interns rating they were most proficient at taking an accurate history.

Supervisors thought interns needed to be more proficient in formulating a differential diagnosis (37.5%) and accurately document notes / discharge summary (43.75%), whilst Interns felt they needed to be more knowledgeable in understanding legal, not just procedural consent (31.25%), accurately document notes / discharge summary (37.5%), and responding to a common ward call (37.5%).

See Table 2. (Appendix 5)

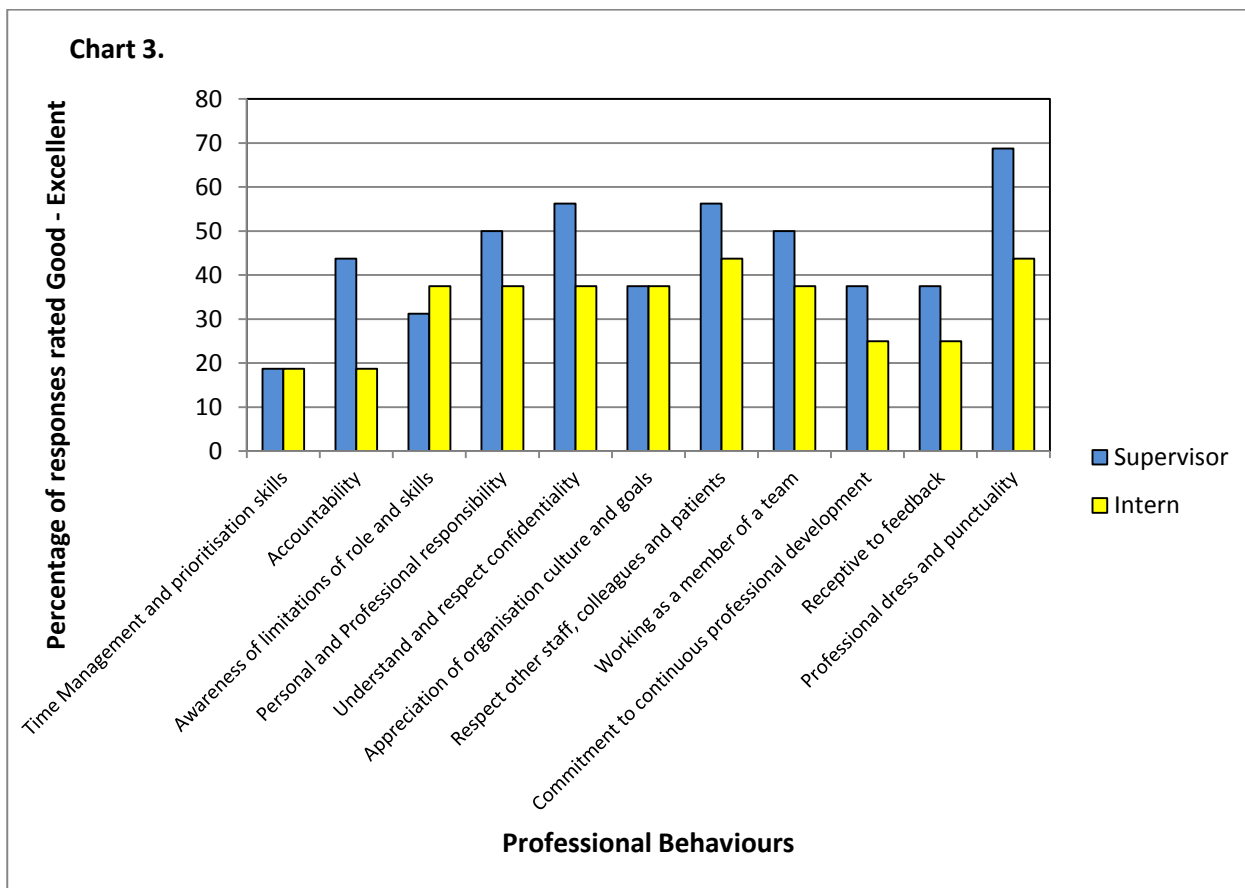


Professional behaviour category compared skills including respect, team work, accountability and feedback. The list of skills was recommended by the National Intern Work Readiness Forum (5) as professional behaviours required by Junior Doctors on day one of Internship.

Supervisors thought Interns demonstrated high levels of professional behaviour in dress and punctuality (68.75%), compared to only 43.75% of interns. Interns thought they were equally proficient at showing respect to other staff, colleagues and patients (43.75%), compared to 56.25 % of supervisors.

Supervisors thought interns needed to be more proficient in time management and prioritisation skills (18.75%), whilst Interns felt they needed to be equally more proficient in time management and prioritisation skills (18.75%) and accountability (18.75%).

See Table 3. (Appendix 5)

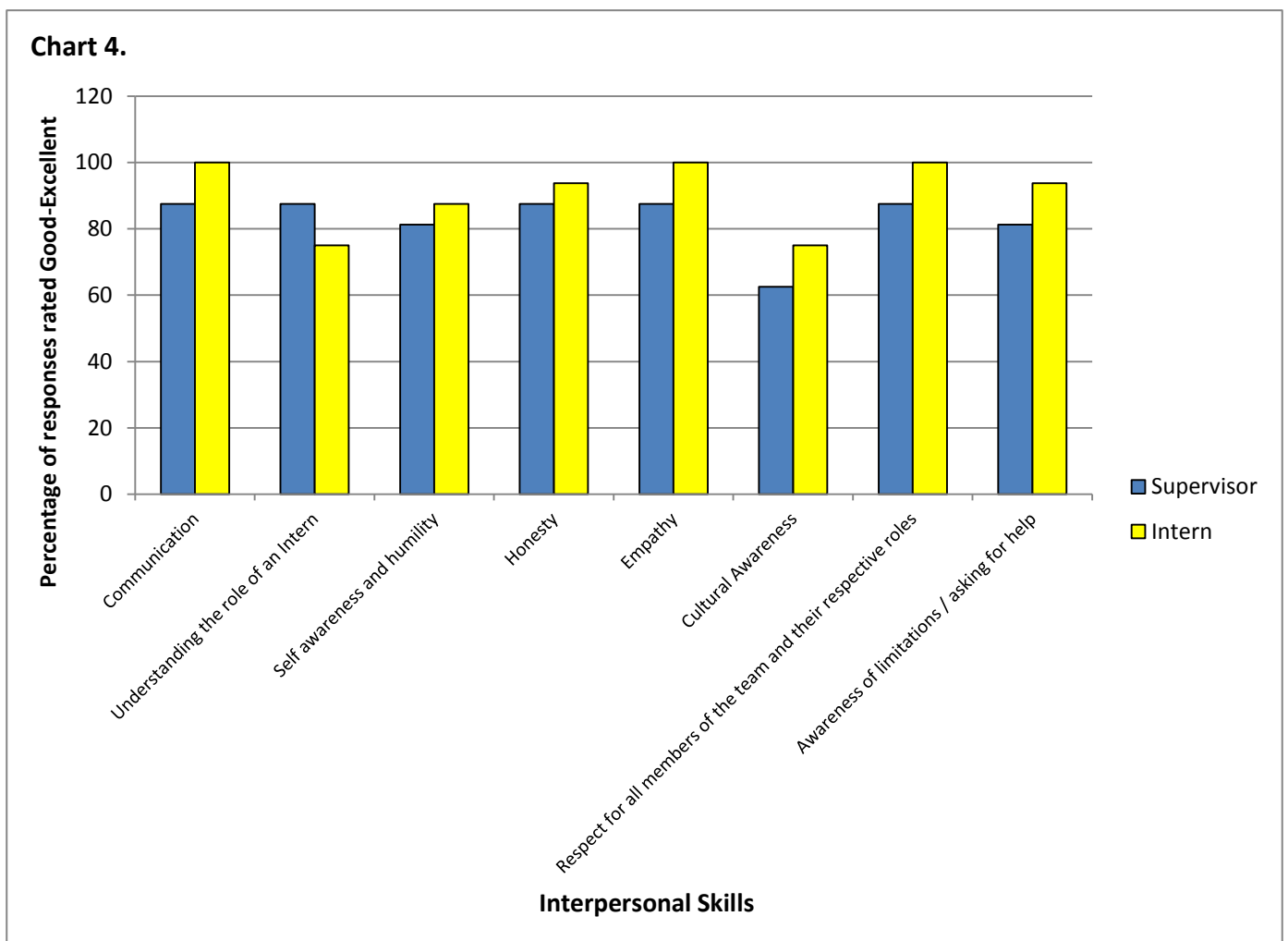


Interpersonal skills category compared the skills including communication, cultural awareness and empathy, as recommended by the National Intern Work Readiness Forum (5) as interpersonal skills required by Junior Doctors on day one of Internship.

Supervisors thought Interns were equally proficient (87.5%) at several of the listed skills including; communication, understanding the role of an Intern, honesty, empathy and respect for all members of the team. This compared to the Interns rating communication (100%), understanding the role of an Intern (75%), honesty (93.75%), empathy (100%) and respect for all members of the team (100%). As reflected above, Interns thought they were most proficient in communication (100%), empathy (100%) and respect for all members of the team (100%). This was compared to supervisors rating of 87.5% for communication, empathy and respect for all members of the team.

Both supervisors (62.5%) and interns (75%) thought that interns needed to be more proficient in cultural awareness.

See Table 4. (Appendix 5)



This category asked for a rating from 1-5 of skills and behaviours thought to be beneficial for junior doctors at the commencement of Internship.

Supervisors thought the most important skill was patient assessment (rated 1.) compared to interns rating it the second most important skill (rated 2.). Interns rated prescribing as the most important skill (rated 1.), compared to supervisors rating prescribing as the third most important skill (rated 3.)

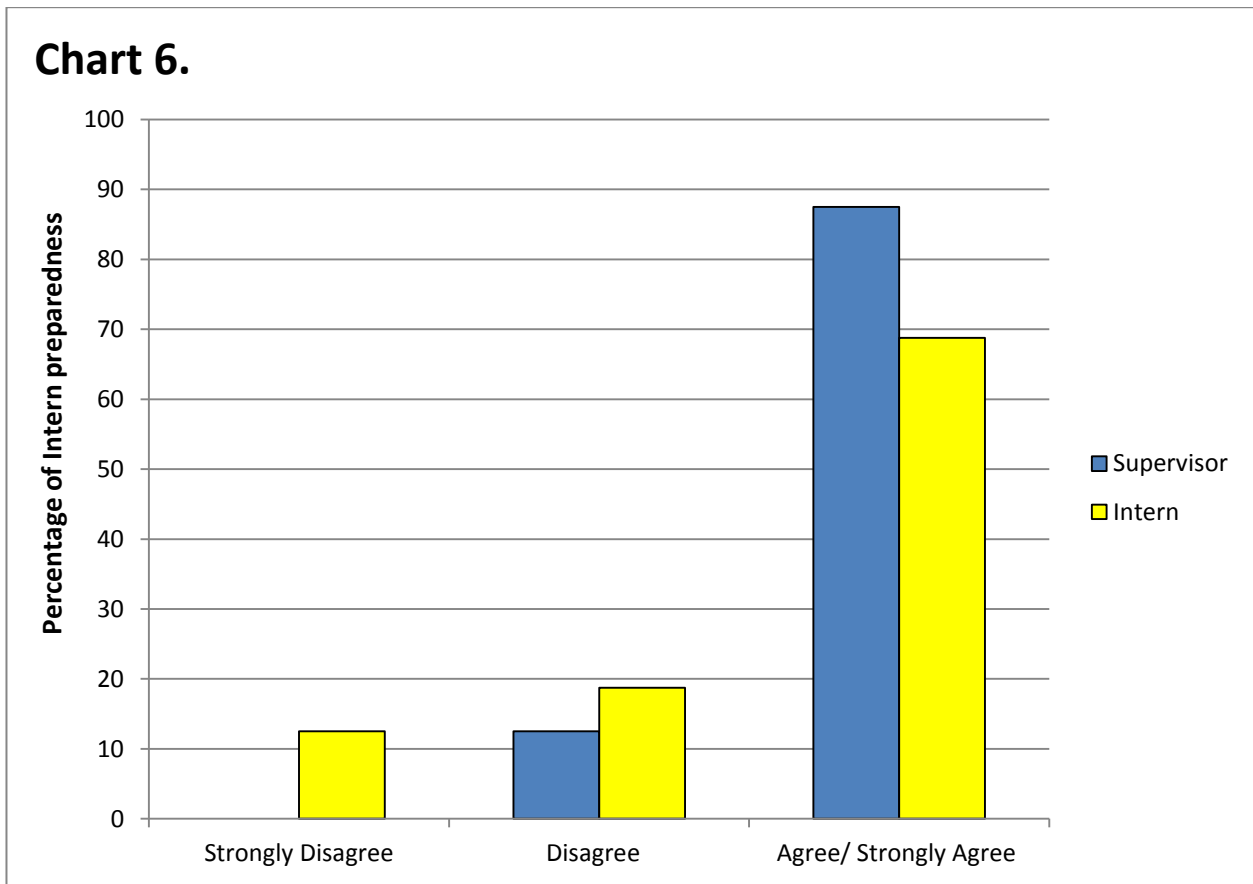
Supervisors thought documentation was the fifth most important skill, compared to Interns not rating documentation. Interns considered wellbeing as its fifth most important behaviour, whilst supervisors did not rate wellbeing within the top 5 most important skills or behaviours.

Table 5.

	Rating	
	Supervisor	Intern
Prescribing	3	1
Patient Assessment	1	2
Time Management	0	3
Handover	0	4
Wellbeing	0	5
Diagnostics	2	0
Recognition of limitations	4	0
Documentation	5	0

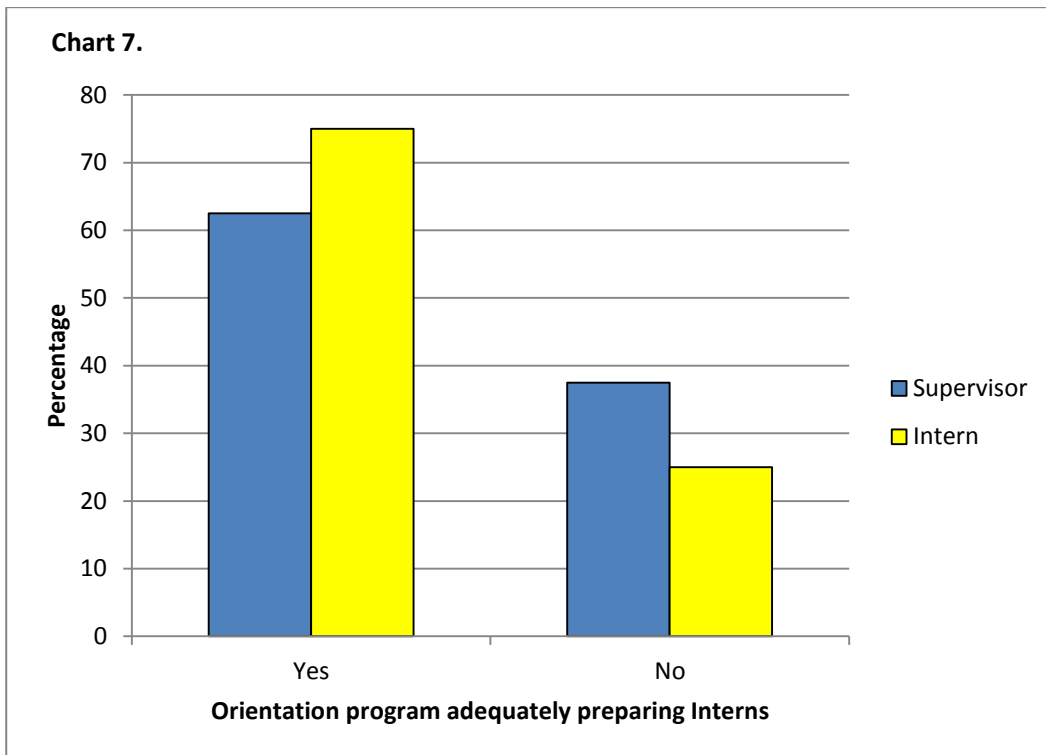
When asked to consider if Interns were work ready on day 1, 87.5% of Supervisors either agreed or strongly agreed, compared to only 68.75% of Interns.

See Table 6. (Appendix 5)



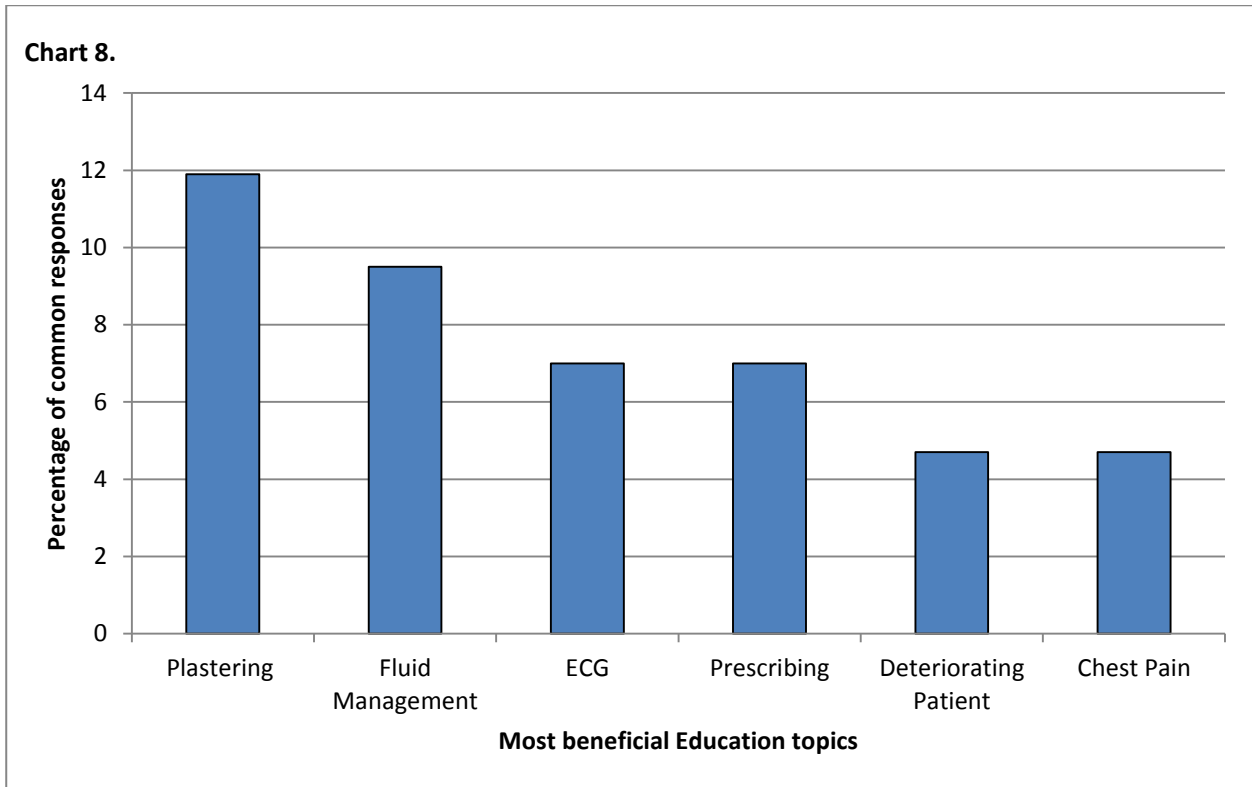
62.5% of Supervisors and 75% of Interns agreed that the Orientation program adequately prepares Junior Medical Staff for the commencement Internship.

See Table 7. (Appendix 5)



Finally, when asked to identify the top three education topics deemed to be the most beneficial in Term 1 of Internship, the collaborative response included (in order) Plastering, Fluid Management, ECG and Prescribing.

See Table 8. (Appendix 5)



Discussion

The data from this research suggests that within the rural context, it is agreed that Interns are considered “ready” to undertake their Internship on their first day of employment. This is supported by 62.5 % of Interns and 75% of Supervisors agreeing that Interns were adequately prepared. This is closely aligned with results from the national survey with 70% of Interns feeling adequately prepared (3).

Using the list of procedural skills recommended by the National work readiness forum (5), the data reflected (with the exception of interpreting blood cultures), very few consistencies between Intern and Supervisors perception of the level of proficiency Interns have whilst performing procedural skills on day one of internship. Supervisors considered Interns to be most proficient in basic infection control and interpreting an urine analysis test, whereas Interns considered themselves (also) most proficient in basic infection control and basic life support. Comparatively, interns rated themselves significantly lower in prescribing; writing fluid orders and ENT swab/wound swabs, whilst supervisors rated intern proficiency in dressing care basics. This data suggests that prescribing and specific wound care skill sessions during orientation or within the first few weeks of term one, would be beneficial for Interns.

Interns ability to apply clinical knowledge at the commencement of Internship provided data with some consistency between both groups. Ratings of skills with relevance to the clinical knowledge of Interns (obtained from recommendations at the National work readiness forum (5)), saw 75% of both Interns and supervisors agreeing that Interns recognised their boundaries, and appropriate times to ask or refer for help. Both supervisors and interns agreed that Interns were proficient in taking an accurate history at the commencement of internship. The interns felt that documentation was an area that could be improved, together with understanding consent (legal and procedural). The data suggested that Interns were more likely to rate themselves lower in areas pertaining to patient diagnostics.

The professional behaviour of Interns commencing internship, saw supervisors identifying equal or more proficiency in all listed tasks (derived from recommendations at the National work readiness forum (5)), compared to Interns. Both groups considered interns need to be more proficient in time management skills whilst Interns considered their receptiveness to feedback and commitment to continual professional development to be low at the commencement of internship. The data highlighted the need for professionalism topics to be included in the medical education program within term one (and regularly thought) the intern year.

The Interpersonal skill of Interns commencing internship was rated consistently high by both interns and supervisors, with Interns rating themselves higher in most of the listed skills. The only exception, which was agreed by both groups, was cultural awareness. The ability of Interns to be more culturally aware could be assisted by the reinforcement of education and training throughout the internship.

When asked to rate five skills and behaviours thought to be most beneficial for junior doctors at the commencement of internship, both groups rated prescribing and patient assessment within their top 3. The data demonstrated that diagnostic and documentation skills were considered important from a supervisor perspective, however were not rated at all by the interns. Conversely, time management and wellbeing were considered important from an interns perspective, but failed to receive any rating from the supervisor group. This challenges the theory behind the development of orientation packages with a heavy focus on diagnostics and assessment. Whilst these skills have a very important place within orientation programs, interns are placing importance on skills relating to the practicalities of internship.

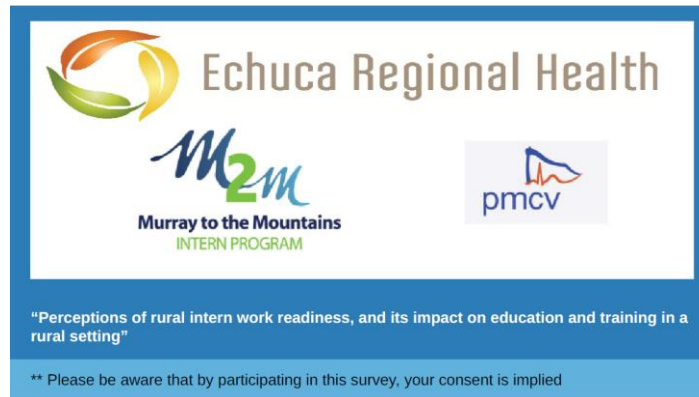
Overall, 87.5% of supervisors and 68.75% of Interns agreed/strongly agreed that Interns were work ready on day one of their internship. This data suggests that health services are providing interns with additional knowledge and skills (through education and orientation) prior to commencement, allowing interns to perform within the expectations of internship on day one. This was further confirmed with 62.5% of supervisors and 75% of interns agreeing that the health service orientation program contributed to adequately preparing junior medical staff for the commencement of internship.

When asked to identify education topics deemed to be most beneficial in term one, the collaborative response included topics that both groups have identified previously within the data as lower areas of intern proficiency. These included fluid management, prescribing and the deteriorating patient.

Although the small sample size has been a limitation of this research, the data has provided important insight into orientation and education topics which could enhance intern confidence and proficiency in skills and behaviours at the commencement of internship. The data has also provided insight into the similarities and differences between supervisors and interns perceptions regarding skills and behaviours of junior medical staff, and what skills are deemed important by both groups. This data obtained from this research will enable rural health services to reflect on orientation and education programs for interns, and better understand the needs of junior medial staff to provide programs which enhance current skills and contribute to satisfying the requirements of internship.

Appendix 1.

Survey - Interns



* Please rate your ability to complete the following Procedural Skills at the commencement of your Intern Year

	Very Poor	Poor	Average	Good	Excellent	N/A
Basic infection control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic life support / CPR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safe prescription writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENT swab/wound swab	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dressing care basics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Select and write a fluid order	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oxygen administration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blood cultures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insert an IV cannula	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simple suture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking ABG/VBG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urinary catheter male and female	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interpret urinalysis test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please rate your ability to apply clinical knowledge in the following areas at the commencement of your Intern year

	Very Poor	Poor	Average	Good	Excellent	N/A
Take an accurate history	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perform an accurate examination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formulate a differential diagnosis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognise boundaries and when to ask/refer for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand legal not just procedural consent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accurately document notes/discharge summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical handover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selecting and ordering fluids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify a deteriorating patient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of IT systems/info requirements efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering and interpreting tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescribing common medication, particularly analgesia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appreciate the differences in escalation process - night vs day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responding to a common ward call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please rate your ability to demonstrate the following professional behaviors on the commencement of your internship

	Very Poor	Poor	Average	Good	Excellent	N/A
Time management and prioritisation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accountability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Awareness of limitations of role and skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal and professional responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand and respect confidentiality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appreciation of organisation culture and values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect other staff, colleagues and patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working as a member of a team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commitment to continuous professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receptive to feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional dress and punctuality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please rate your ability to demonstrate the following Interpersonal skills at the commencement of your internship

	Very Poor	Poor	Average	Good	Excellent	N/A
Communication and listening skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding the role of an Intern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self awareness and humility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Honesty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Empathy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural Awareness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect for all members of the team and their respective roles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Awareness of limitations/asking for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Upon reflection, what are the 5 skills or behaviours that would have been beneficial to have had at the commencement of your internship?

1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>

* Please respond to this statement: " On my first day, I felt adequately prepared to undertake the roles and responsibilities of an Intern"

- Strongly disagree
- Disagree
- Agree
- Strongly Agree

* Do you feel as though your Orientation program adequately prepared you for the commencement of your Internship?

Yes

No

Why / Why not?

* What are the three education topics that were / would have been beneficial in term one of your internship?

1.

2.

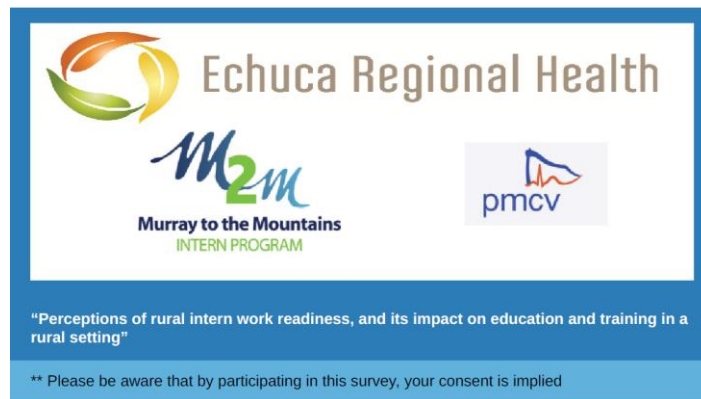
3.

Do you have any further comments ?

Thank you. We appreciate you taking the time to complete this survey

Appendix 2

Survey - Clinical Supervisors



* Please rate the ability of Interns to complete the following Procedural Skills at the commencement of their Internship

	Very Poor	Poor	Average	Good	Excellent	N/A
Basic infection control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic life support / CPR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Able to write a safe prescription	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENT swab/wound swab	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dressing care basics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Select and write a fluid order	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oxygen administration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blood cultures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insert an IV cannula	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simple suture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking ABG/VBG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urinary catheter male and female	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interpret urinalysis test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please rate Interns ability to apply clinical knowledge at the commencement of their Internship

	Very Poor	Poor	Average	Good	Excellent	N/A
Take an accurate history	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perform an accurate examination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formulate a differential diagnosis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognise boundaries and when to ask/refer for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand legal not just procedural consent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accurately document notes/discharge summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical handover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selecting and ordering fluids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify a deteriorating patient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of IT systems/info requirements efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering and interpreting tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescribing common medication, particularly analgesia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appreciate the differences in escalation process - night vs day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responding to a common ward call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please rate Interns ability to demonstrate the following professional behaviors on the commencement of their Internship

	Very Poor	Poor	Average	Good	Excellent	N/A
Time management and prioritisation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accountability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Awareness of limitations of role and skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal and professional responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand and respect confidentiality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appreciation of organisation culture and values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect other staff, colleagues and patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working as a member of a team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commitment to continuous professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receptive to feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional dress and punctuality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please rate Interns ability to demonstrate the following Interpersonal skills at the commencement of their internship

	Very Poor	Poor	Average	Good	Excellent	N/A
Communication and listening skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding their role	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self awareness and humility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Honesty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Empathy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural Awareness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect for all members of the team and their respective roles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Awareness of limitations/asking for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Upon reflection, what are the 5 skills or behaviours that Junior Medical Officers should be proficient in at the commencement of internship?

1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>

* Please respond to this statement: " On their first day, Junior Medical Officers are adequately prepared to undertake the roles and responsibilities of an Intern"

Strongly disagree

Disagree

Agree

Strongly Agree

* Do you feel as though your Orientation program adequately prepares junior medical staff for the commencement of their Internship?

Yes

No

Why / Why not?

Do you have any further comments ?

Appendix 3

Plain Language Statement



Plain Language Statement

“Perceptions of intern work readiness and its impact on education and training in a rural setting”

Investigators:

Mrs Kate Carlile, supervised by Dr Catherine Lees

You are invited to participate in a research project being conducted by Echuca Regional Health, in collaboration with Murray to the Mountains Intern Program and Postgraduate Medical Council of Victoria. Please read this sheet carefully and be confident that you understand its content before deciding whether to participate. If you have any questions about the project, feel free to contact the investigators using the details provided at the end of this statement.

What is the project and why are we doing this research?

The Australian Health Ministers Advisory Council's (AHMAC) review of intern training triggered much discussion regarding defined work readiness expectations of graduates entering their Internship. There is limited current literature regarding Intern readiness, particularly in a rural setting. This research focuses explicitly on Interns and Supervisors within rural Victoria, and examines the impact perceptions of work readiness have on the development and implementation of orientation and education programs for Interns.

This research seeks to understand what work readiness means to doctors commencing a rural internship and develop an orientation program and ongoing wellness support program for rural Interns. The research will compare survey data to establish a group of skills and behaviours that reflect those encountered by interns in a rural setting.

Why have I been approached?

You have been approached because you have been identified as someone who is currently completing their Internship or involved in the Supervision of Interns within a rural setting.

If I agree to participate, what will I be required to do?

Your participation will involve the completion of an online survey which will take approximately ten minutes to complete. You can withdraw from this research at any stage. Survey questions will ask you your thoughts on Interns ability to complete skills and behaviours upon commencing an Internship. There is no right or wrong answers; we are very much interested in your experience. By completing the survey, your consent is implied.

What about my privacy?

Your responses to the survey questions will not be connected to your identity. Due to the small number of participants, there is a minimal risk of identification. To minimise this, results will only report numeric and general findings that are non-identifiable.

Only investigators Kate Carlile and Dr Catherine Lees will have access to any unprocessed data.

Surveys will be kept at Echuca Regional Health for a minimum of five years following the final submission of the project. Following this period, electronic data will be deleted and hard-copy data will be shredded and disposed of.

What are my rights as a participant?

Participation is entirely voluntary. At any time, you have the right to withdraw your participation, with no questions asked and no penalty. You also have the right to have any questions answered. Should you choose to withdraw, you have the right to withdraw any unprocessed data.

This research has been approved by the University of Melbourne Human Ethics Advisory Group (Identification Number 1749944.1). If you have any concerns or complaints about the conduct of a research project, please contact the Manager, Human Research Ethics, Research Ethics and Integrity at The University of Melbourne.

Telephone +61 3 8344 2073

Email humanethics-complaints@unimelb.edu.au

All complaints will be treated confidentially. In any correspondence please provide the name of the research team or the ethics ID number: 1749944.1

Is this project likely to benefit other people in the future?

This research may translate to other rural and regional health services, offering a model of core skills/knowledge required by interns before commencing their postgraduate year. It is anticipated that the outcomes of this research will be transferrable to other similar health services, through highlighting the correlation between perceptions involving 'Intern readiness' and the design of orientation and education programs. The outcomes from this research will be used to produce a model which evaluates the core skills/knowledge required by Interns before commencing their postgraduate year.

Any further questions?

Feel free to contact investigators;

Mrs Kate Carlile: 03 5485 5282 or kcarlile@erh.org.au

Dr Catherine Lees: 03 5485 5280 or clees@erh.org.au

Appendix 4

Geographical distribution of Survey Sample



Appendix 5

Data

Table 1.	Supervisor	Intern	Supervisor	Intern	Supervisor	Intern	Supervisor	Intern	Supervisor	Intern	Supervisor	Intern
	Very Poor %		Poor %		Average %		Good %		Excellent		N/A %	
Basic Infection Control	0	0	0	0	25	18.75	62.5	62.5	12.5	18.75	0	0
BLS/CPR	0	0	6.25	0	25	6.25	25	81.25	6.25	12.5	37.5	0
Able to write a safe pres	0	0	12.5	25	25	56.25	43.75	0	18.75	18.75	0	0
ENT swab/wound swab	0	6.25	12.5	18.75	18.75	43.75	37.5	18.75	12.5	0	18.75	2
Dressing care basics	0	12.5	25	18.75	25	50	6.25	18.75	6.25	0	37.5	0
Select and write a fluid order	0	0	12.5	25	18.75	50	37.5	12.5	25	12.5	6.25	0
Oxygen administration	0	0	6.25	12.5	31.25	56.25	37.5	18.75	25	12.5	0	0
Blood Cultures	0	0	6.25	6.25	25	43.75	25	43.75	25	6.25	18.75	0
Take Blood	0	0	6.25	0	31.25	31.25	25	43.75	31.25	25	6.25	0
Insert an IV Cannula	0	0	12.5	6.25	25	25	25	56.25	37.5	12.5	0	0
Simple Suture	0	0	12.5	6.25	18.75	50	25	37.5	12.5	6.25	31.25	0
Taking ABG/VBG	0	0	12.5	25	37.5	31.25	12.5	37.5	12.5	6.25	25	0
Urinary Catheter Male and Female	6.25	0	6.25	0	12.5	50	37.5	37.5	6.25	12.5	31.25	0
Interpret urinalysis test	0	0	6.25	0	25	37.5	31.25	43.75	37.5	18.75	0	0

Table 2 .	SUP	INT	SUP	INT	SUP	INT	SUP	INT	SUP	INT	SUP	INT
	Very Poor %		Poor %		Average %		Good %		Excellent %		N/A %	
Take an accurate history	0	0	0	0	25	25	43.75	50	31.25	25	0	0
Perform an accurate examination	0	0	6.25	0	31.25	25	37.5	56.25	25	18.75	0	0
Formulate a differential diagnosis	0	0	6.25	6.25	43.75	25	37.5	62.5	12.5	6.25	0	0
Recognise boundaries and when to ask / refer for help	0	0	0	0	18.75	6.25	37.5	56.25	43.75	37.5	0	0
Understand legal not just procedural consent	6.25	0	0	6.25	43.75	56.25	31.25	31.25	12.5	6.25	6.25	0
Accurately document notes / discharge summary	0	0	12.5	6.25	31.25	31.25	25	37.5	31.25	25	0	0
Clinical handover	0	0	6.25	18.75	25	31.25	31.25	37.5	37.5	12.5	0	0
Selecting and ordering fluids	6.25	0	6.25	18.75	31.25	43.75	37.5	25	12.5	12.5	6.25	0
Identify a deteriorating patient	0	0	6.25	6.25	18.75	37.5	56.25	37.5	18.75	18.75	0	0
Knowledge of IT systems/info requirements efficiency	0	0	0	18.75	25	31.25	31.25	31.25	37.5	18.75	6.25	0
Ordering and interpreting tests	0	0	6.25	0	37.5	50	43.75	37.5	12.5	12.5	0	0
Prescribing common medication, particularly analgesia	0	0	12.5	6.25	31.25	62.5	43.75	18.75	12.5	12.5	0	0
Appreciate the differences in escalation process night vs day	6.25	0	0	12.5	31.25	37.5	31.25	43.75	6.25	0	25	6.25
Responding to a common ward call	0	0	6.25	12.5	25	43.75	37.5	37.5	18.75	6.25	12.5	0

Table 3.	SUP	INT	SUP	INT	SUP	INT	SUP	INT	SUP	INT	SUP	INT
	Very Poor %		Poor %		Average %		Good %		Excellent %		N/A %	
Time Management and prioritisation skills	6.25	0	6.25	6.25	6.25	37.5	62.5	37.5	18.75	18.75	0	0
Accountability	0	0	6.25	0	12.5	37.5	37.5	43.75	43.75	18.75	0	0
Awareness of limitations of role and skills	0	0	0	0	12.5	25	56.25	37.5	31.25	37.5	0	0
Personal and Professional responsibility	0	0	0	0	6.25	25	43.75	37.5	50	37.5	0	0
Understand and respect confidentiality	0	0	0	0	6.25	6.25	37.5	56.25	56.25	37.5	0	0
Appreciation of organisation culture and goals	0	0	0	6.25	25	18.75	37.5	37.5	37.5	37.5	0	0
Respect other staff, colleagues and patients	0	0	0	0	6.25	12.5	37.5	43.75	56.25	43.75	0	0
Working as a member of a team	0	0	0	0	6.25	12.5	43.75	50	50	37.5	0	0
Commitment to continuous professional development	0	0	0	0	12.5	12.5	25	62.5	37.5	25	0	0
Receptive to feedback	0	0	0	0	0	0	62.5	75	37.5	25	0	0
Professional dress and punctuality	0	0	0	0	6.25	0	25	56.25	68.75	43.75	0	0

Table 6.

Intern readiness on day 1	Supervisor	Intern
Strongly Disagree	0	12.5
Disagree	12.5	18.75
Agree	75	62.5
Strongly Agree	12.5	6.25

Table 7.

Orientation prepares Interns adequately	SUP	INT
Yes	62.5	75
No	37.5	25

Table 8.

Education Topic	Most Beneficial %
Plastering	11.9
Fluid Management	9.5
ECG	7
Prescribing	7
Deteriorating Patient	4.7
Chest Pain	4.7

References

- (1) Recommendation 2, page 7; Review of Medical Intern Training: Australian Health Ministers Advisory Council, 2015
- (2) Intern Outcome Statements pages 1-3; Australian Medical Council Ltd 2013
- (3) National Intern Work Readiness Forum, Summary of proceedings, Appendix 2: Survey of Interns and Supervisors
- (4) National Intern Work Readiness Forum, Summary of proceedings, Appendix 3: Skills and Competencies