

Scope of practice of nurses and allied health practitioners in East Gippsland

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Introduction

The extended scope of practice (SoP) of rural medical practitioners is well-documented and well-understood (1). Training for this SoP has taken the form of "Rural Generalist" programs and the concept of the Rural Generalist medical practitioner is gaining traction in Australia and internationally (2).

There are many parallels between rural doctors and other rural health practitioners from the perspective of the development and maintenance of skills to meet the needs of rural communities, and working in an environment of relative professional isolation.

This project sought to investigate the perceptions and experience of established rural nurses and allied health practitioners in the East Gippsland region of Victoria, including their prior training, prior exposure to rural practice, preparation for rural practice, continuous education needs, and the impact of "difficult-to-manage" clinical presentations on their perceptions of training needs, engagement with the community and sustainability of their role as a rural health practitioner. We asked them to comment on clinical risk management strategies that they have employed as rural health practitioners.

We also sought their perceptions of themselves as "adaptive experts". The concept of "adaptive expertise" has been described in medical workforce and education literature (3). This describes the process by which practitioners make use of past experience to create new approaches and alternative solutions to "daily workplace challenges" with which they are confronted. The adaptation may include new knowledge and skills but it may also include a new way of practice that can be applied in the future (4).

Aim

The aim of this research project was to gather information on the perceptions and experience of established rural nursing and allied health practitioners in meeting the health needs of their community (with particular focus on an expanded scope of practice), how they came to identify their learning needs, and their experience in gaining expanded knowledge and skills.

Setting

East Gippsland is located in eastern Victoria, Australia, extending from Stratford to Mallacoota near the NSW border, from 280km to 550km in distance from Melbourne. In 2015, The East Gippsland Region had a population of 43,995 (4) (5). Along with an aging population, it has been reported that 6.5% of the East Gippsland population require health care and social assistance with core activities (6). The health care and social assistance sector had the highest employment rate in East Gippsland (14.4% of the population employed in this sector) (7) (10). The East Gippsland area has three hospitals, community health services and five bush nursing centres (4-9).

Methodology

Participants

The Project was conducted in the second half of 2016. The target group of participants included rural nurses, midwives and allied health professionals in the East Gippsland Local Government Area. Potential participants were identified firstly by an internet search of practitioners in the individual fields in the East Gippsland region, and through a practitioner search on the Department of Human Services practitioner directory; and secondly, via a local database of health professional who have provided details for research purposes, and hospitals and major community health centres in the region. Invitation emails were sent to the identified potential participants along with an explanatory statement for the study and an electronic link to the questionnaire.

Questionnaire

The 33-item questionnaire was developed by the research team based on demographic questions and the research study aims, with subsequent contributions from the Project Steering Committee and external stakeholders.

A draft of the questionnaire was then distributed to a representative selection of nurses and allied health professionals in the Latrobe Valley area (distinct from East Gippsland) for feedback focusing on several aspects.

The final version of the questionnaire was created in an electronic form using Qualtrics (<https://www.qualtrics.com/>), and results were collated electronically for analysis.

Ethics

Ethics was approved by Monash University Human Research Ethics Committee (approval number: CF16/2354 – 2016001186).

Data analysis

Analysis of the questionnaire data was completed using a mixed-methods approach. Participant demographic data was analysed with descriptive statistics. Normality was assessed for all 11-point Likert scale items to determine if parametric (for normally distributed data) or non-parametric (for skewed data) analyses were to be used. Inferential statistics were used to compare nursing and midwifery with allied health professionals, large towns (≥ 4500 population) with small towns (< 4500 population) and longer amount of rural experience (>10 years of experience) with a shorter amount of rural experience (≤ 10 years of experience). SPSS (IBM SPSS Statistics, Version 23) was used to undertake all statistical analyses; data is presented as mean \pm standard deviation (sample number); statistical significance was accepted at an alpha value of < 0.05 .

Qualitative analysis of the open-ended question responses was conducted using content analysis, applying codes and categories to open-ended question responses to identify response patterns and extrapolate meaning. Two members of the research team independently applied categories and frequency counts to answers of the open-ended questions and then came together to form a consensus on the emerging categories and themes, and ensure reliability of the results.

Results

Demographics

There were a total of 44 responses to the electronic survey, and subsequently 11 were excluded from analysis due to significantly incomplete data. Of the remaining 33, there were 26 females (79%) and 7

males (21%). The most frequently reported age group was 50-59 years of age which accounted for 36% of respondents.

The respondents' professions are outlined in Table 1.

Table 1 Respondents' profession

Rank	Profession	Number of respondents	Percentage of all respondents
1	Nurse	11	33.3
2	Midwife	3	9.1
3	Occupational Therapist	3	9.1
4	Optometrist	3	9.1
5	Dietician	2	6.1
6	Podiatrist	2	6.1
7	Psychologist	2	6.1
8	Social Worker	2	6.1
9	Speech Pathologist	2	6.1
10	Exercise physiologist	1	3.0
11	Not identified	1	3.0
12	Physiotherapist	1	3.0
TOTAL		33	

Practice experience and location

There was a wide range of practice experience amongst the respondents, from 1 year up to 56 years. Just under a third of respondents (31%) had been practicing in their current profession between 31-40 years.

The range of duration of *rural* practice was similar, i.e. from 56 years to under 1 year. The largest percentage of respondents had less than 10 years' rural experience (42%), followed by 11-20 years rural experience (23%).

The largest percentage of respondents reported practicing in Bairnsdale (36%), closely followed by Lakes Entrance (33%). These are the two largest towns in the East Gippsland region.

Education and training

Twenty three of the respondents had achieved their initial qualifications at the bachelor level, three had achieved diplomas and six of the nurses had gained hospital-based qualifications (prior to the introduction of university qualifications). Two of these nurses had subsequently completed bachelor of nursing degrees at university.

30% of respondents reported having a rural placement during their initial training. Almost three quarters of the respondents (73%) reported having undertaken postgraduate qualifications and training.

The majority of respondents (82%) identified that they had experienced barriers to continued professional development (CPD). These are outlined in Table 2.

Table 2 Barriers to continued professional development

Ranking	Code	Frequency count	Percentage of respondents
1	Travel & Distance	20	74.07%
2	Financial issues	16	59.25%
3	Locum / relief support	14	51.85%
4	Time	6	22.22%
5	Access	6	22.22%
6	Workplace support	2	7.40%
7	Family	2	7.40%

There were 27 respondents that identified barriers. The total number of frequency counts are more than the total number of respondents as some respondents identified more than one barrier.

Rural practice preparedness

Respondents were asked to rate on an 11-point Likert scale (0-10), the extent to which they felt that their initial qualifications adequately prepared them for rural practice (0 = not at all and 10 = completely). 30% of respondents ranked themselves at 4 or 5, and 30% at 7 or 8 on this scale. The mean rating was 5.27, with no statistical difference between the professional groups.

Clinical challenges

Again on an 11-point Likert scale, respondents were asked how often (0 = never, 10 = very often) they had been presented with a clinical situation in rural practice that was difficult to manage. One third (30%) of respondents rated this at 7 or 8. Three respondents (9%) said they were never presented with a difficult-to-manage situation and one respondent said this occurred "very often". The mean rating was 5.27, again with no statistical difference between the professions.

Increased frequency of difficult-to-manage clinical situations was related to a greater sense of isolation from other members of their own profession and a sense of being required to work outside their SoP.

Paradoxically, in responding to difficult-to-manage clinical situations, the majority of participants reported that they sought support via consultation with peers, supervisors or other health professionals (including referral to "more qualified health professionals") and a significant number relied on their training and "working within our scope of practice."

Further education

The majority (63%) of respondents reported that additional education and training had increased their confidence to deal with difficult to manage clinical situations, and this was more common amongst those with greater rural experience.

75% of respondents said that there was nothing else that could have been done to better prepare for rural practice. The remaining 25% mentioned strategies such as more rural placements during initial training, being involved in a mentor program in the early years of rural practice and undertaking specific education about Indigenous Australians, paediatrics and clinical assessment skills.

Risk management

Clinical risk management involves identification and management of potential risks to patients in the course of normal practice and when presented with rare or challenging situations. The most

frequently identified risk management strategies amongst respondents were the use of clinical guidelines (94%), referral to colleagues (79%), informing individual patients about SoP (76%) and the use of collaborative networks (73%). The least identified strategy was informing the community about SoP (30%).

Adaptive expertise

Adaptive expertise is defined as one's ability to invent new solutions in response to daily workplace challenges. Adaptive experts are innovative and flexible in their approach to problem-solving, particularly when faced with unfamiliar and non-routine problems.

Just under half of respondents reported comfort with such an approach, with no statistically significant differences across the sub-groups.

Those respondents who expressed comfort with an adaptive expertise approach were less likely to report that they had been presented with a difficult-to-manage clinical situation.

Scope of practice

Rural doctors are increasingly being described as "rural generalists" in recognition of their SoP and working in "relative professional isolation". Questions related to this explored the concept of all rural health practitioners being described as "generalists".

On a 0-10 scale, respondents were asked to what extent they regarded themselves as a generalist or a specialist in their profession. More than half of respondents (62.5%) rated themselves as a generalist "to some degree" more than a specialist (1-5). The average rating was 3.81, with no statistically significant differences across the sub-groups.

Respondents who had undertaken a rural placement during training appeared to regard themselves more as a generalist than a specialist, although this perception was not influenced by whether or not a respondent undertook postgraduate qualifications or training.

Regulatory bodies such as AHPRA, Boards, Colleges and employers, may set restrictions on both the breadth and depth of clinical practice of health professionals. On a 0-10 scale, respondents were asked how often they felt they worked outside their scope of practice. Just over half of respondents (54.6%) rated this at 1 or 2 (where 0 = never and 10 = very often), 6.5% said they never worked outside their SoP and 12.9% said they often worked outside their SoP. The mean rating was 3.03.

Allied health professionals were more likely to report that they worked outside their SoP than nurses or midwives, and this difference was statistically significant. However, there were no statistically significant differences when comparing practice in large towns versus small towns and long versus short amounts of rural experience.

There was a positive correlation between a sense of working outside one's SoP and the likelihood of being presented with a difficult-to-manage clinical situation, and also a greater sense of isolation from other members of their profession. Overall, just over half of respondents (51.6%) expressed some sense of isolation from their colleagues, with no statistically significant differences across the sub-groups.

Undertaking postgraduate qualifications or training did not appear to influence how often respondents felt they worked outside their SoP.

On a 0-10 scale, respondents were asked how often they work as part of a team of rural health professionals communicating and collaborating in the interests of the patient. Just over half of respondents (54.9%) rated this at 8-10 (where 0 = never and 10 = very often), with a mean rating of 6.84, with no statistically-significant differences across the sub-groups.

Discussion

This research project provides some useful information and insights about the educational requirements, professional attitudes and challenges identified by rural and remote nurses and allied health practitioners in East Gippsland, Australia.

The number of incomplete surveys (eleven) which were excluded from the data was disappointing, however inclusion of any of the responses from this group would have rendered unreliable the conclusions drawn from the data analysis. It was also a little surprising that less than half of the respondents were nurses, given the workforce demographics of the region.

The majority of respondents (62%) had worked in rural practice for more than 20 years, and this was reflected in the quality of the responses from a thoughtful and reflective cohort with a deep understanding of the challenges of rural practice.

Given the average age of respondents (50-59 years), it is perhaps not surprising that only 30% of respondents had undertaken a rural placement during their training. Rural clinical placements in undergraduate nursing and allied health education is largely a recent phenomenon (11).

The commitment to maintenance of professional knowledge and skills is evident in this group, with 73% reporting having undertaken postgraduate education and training. Despite this, several barriers to continued medical education were identified, and these are consistent with previous studies of rural health practitioners (11). The barriers identified included distance, cost, travel considerations and availability of locum relief. This finding is consistent with the long-held understanding about the importance of access to and support for, CPD as a crucial component of rural workforce retention. This should serve to reinforce the programs that are currently in place to support CPD for rural health practitioners.

Only 60% of respondents felt that they were somewhat or moderately prepared for rural practice following their initial qualifications. Combined with the findings about frequency of postgraduate education and training, it is clear that, amongst this cohort, tertiary health education programs have not adequately prepared them for rural practice. In addition, 30% of respondents said that they were often presented with a difficult-to-manage clinical situation, with a large proportion (63%) reporting that the additional education and training had "significantly" increased their confidence in dealing with challenging situations. Not surprisingly, this was significantly more likely amongst those with greater rural clinical experience. These findings suggest that the standard of care provided to rural communities is directly related to the commitment of rural health practitioners to maintaining and expanding their range of skills, in response to the needs of their community.

This is further exemplified by the high reliance on clinical guidelines and communication with colleagues as risk-management strategies employed by respondents. This requires further research across a larger cohort of rural practitioners.

Adaptive expertise

The majority of respondents were familiar with the concept of adaptive expertise and employed such strategies in their practice. Flexibility, adaptability and innovative practice have been previously reported as characteristics of rural practitioners (12). The range of strategies identified by this cohort supports these previous findings.

Those practitioners that had been exposed to rural practice during their training were significantly more likely to describe themselves as “generalists”. In addition, those most comfortable with the concept of adaptive expertise and those with greater experience of rural practice were significantly more likely to describe themselves as generalists.

These findings contribute to our understanding of the nature of rural practice in several ways; firstly, that experienced rural practitioners intrinsically regard themselves as generalists, and secondly that adaptive expertise is a component of rural generalism. Whether this occurs in response to the healthcare needs of the rural communities serviced by rural practitioners or whether this is an intrinsic part of the personality of the practitioner attracted to rural practice, requires further study. Nevertheless, it is reasonable to conclude that the long-term rural practitioner who has undertaken continued and further education, particularly in response to the needs of her community, works within a broad generalist SoP rather than a narrow specialist field.

Conclusion

This project has provided us with a snap-shot of the education and clinical experience and attitudes to practice of a small cohort of mainly experienced rural health practitioners in East Gippsland. Less than a third of respondents had undertaken a rural placement during their initial training. The vast majority of respondents had experienced barriers to CPD during their career as a rural practitioner. Respondents outlined a range of strategies they employed to deal with difficult clinical situations, which occurred at a significant rate. Most reported that additional (post-graduate) education and training had increased their confidence in dealing with difficult situations.

Most respondents considered themselves to be “adaptive experts”, and more than half identified themselves as a “generalist” in their profession, and more than half reported they often worked as part of a team. Interestingly, only a small percentage of respondents admitted working outside the SoP of their profession.

This data has built on our understanding of the SoP of rural generalist nursing and allied health practitioners and provides further evidence regarding the importance of supporting their professional development and training needs. This will assist in the planning of rural nursing and allied health education programs and on-going professional development support for established rural practitioners.

Recommendations

1. There is considerable value in providing all undergraduate nursing and allied health practitioners with a rural placement as part of the training for their initial qualification.
2. Consideration should be given to providing all rural health practitioners with adequate support to undertake postgraduate education programs and continued education.

3. Further research is required to investigate the resources that rural nursing and allied health practitioners find most helpful in supporting clinical practice and reducing clinical risk.
4. The concepts of adaptive expertise and rural generalism should be promoted amongst nursing and allied health education programs to provide rural practitioners with a greater sense of professional identity.
5. Further research is required to quantify the SoP of rural nursing and allied health practitioners, to enable a more comprehensive understanding of the education and training pathways that adequately prepare practitioners for rural practice.

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References

1. Australian College of Rural and Remote Medicine (ACRRM). Vocational Training 2017 [January 2017]. Available from: www.acrrm.org.au/vocational-training
2. Sen Gupta T, Manahan D, Lennox D, Taylor N. The Queensland Health Rural Generalist Pathway: providing a medical workforce for the bush Rural and Remote Health. 2013;13:2319.
3. Mylopoulos M, Regehr G. How student models of expertise and innovation impact the development of adaptive expertise in medicine. Medical Education 2009;43:127-32.
4. .id Consulting Pty Ltd. Welcome to East Gippsland Shire Community Profile, 2017 [17.01.2017]. Available from: <http://profile.id.com.au/east-gippsland/home>.
5. .id Consulting Pty Ltd. East Gippsland Shire: Service age groups 2017 [17.01.2017]. Available from: <http://profile.id.com.au/east-gippsland/service-age-groups>.
6. .id Consulting Pty Ltd. East Gippsland Shire: Need for assistance 2017 [17.01.2017]. Available from: <http://profile.id.com.au/east-gippsland/assistance>.
7. .id Consulting Pty Ltd. East Gippsland Shire: Industry sector of employment 2017 [17.01.2017]. Available from: <http://profile.id.com.au/east-gippsland/industries>.
8. .id Consulting Pty Ltd. East Gippsland Shire: Workers' place of residence 2017 [17.01.2017]. Available from: <http://profile.id.com.au/east-gippsland/workers>.
9. Victoria State Government. Health Services - East Gippsland Catchment 2015. Available from: <http://bit.ly/2mZF2C1>.
10. .id Consulting Pty Ltd. East Gippsland Shire: Employment (Census) by industry 2017 [20.01.2017]. Available from: <http://economy.id.com.au/east-gippsland/Employment-census>.
11. National Rural Health Alliance Inc. Advanced nursing practice in rural and remote areas 2005.
12. Reid S, Worley P, Strasser R, Couper I, Rourke J. Chapter 1.1.1 'What brings us together': The values and principles of rural medical education. In: Chater AB, Rourke J, Strasser R, Couper I, Reid S, editors. WONCA Rural Medical Education Guidebook. Electronic Book ed. St. John's, Newfoundland, Canada: Memorial University of Newfoundland Faculty of Medicine; 2016.

Presenter

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