ORIGINAL RESEARCH

Why do some medical graduates lose their intention to practise rurally?

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ABSTRACT:

Introduction: Chronic medical workforce shortage and maldistribution continue to be a significant challenge in rural Australia. The Rural Clinical Schools (RCSs) program helps to alleviate this problem with evidence of increased rural location in graduates of rural training programs. However, rural work intent may change during the years after completing a rural placement. This qualitative study investigated the factors involved in the change of career intention from rural to urban work location among the Australian National University Medical School (ANUMS) Rural Stream (RS) alumni.
Methods: A purposive sampling method was utilised to recruit

ANUMS RS 2006–2016 graduates who expressed that their work plans had changed. Data collected with the use of in-depth, semi-structured interviews were transcribed verbatim. Transcripts were interpreted using thematic analysis and a modified version of I-poems, a component of Voice-Centred Relational Method or the Listening Guide.
Results: Thematic analysis produced three main themes. First, 'impacts of the working environment' highlighted some participants' views that career progression and sustenance, high-quality training and agreeable working conditions could not be achieved rurally. Second, 'ramifications of isolation' described the

experienced or predicted feelings of social and professional isolation. Third, 'familial considerations' explained how the wishes and requirements of partners and families strongly influenced the participants' future work decisions. These findings were supplemented by the 'committed voice' and 'voice of uncertainty', heard through the use of I-poems. The 'committed voice' communicated the participants' dedication to their careers and partners. The 'voice of uncertainty' expressed confusion of intentions as participants attempted to balance the bidimensional needs of the 'committed voice'.

Conclusion: The complex interaction between the availability of high-quality training positions, support issues and work–life balance is associated with the change of rural work intention of RCS graduates. Career and partner/family commitments are significant factors. Meanwhile, uncertainty towards future work location provides the opportunity for carefully developed and appropriate rural workforce strategies to intervene.

FULL ARTICLE:

Introduction

Chronic medical workforce shortage and maldistribution continue to be a significant challenge in rural Australia[1,2]. In order to address this, various interventions have been simultaneously employed through collaborative efforts between the Australian Government, professional medical organisations and educational institutions during the last few decades[1-4]. Some of these strategies were determined to be unsuccessful in minimising the problem. However, programs and policies shown to be effective were maintained and underwent further developments.

In recent years, national medical education training reforms involved adding more Commonwealth Supported Places, increasing enrolment of rural background students to 25% and reducing the Bonded Medical Places return-of-service period to a year[4,5]. In addition to this is the continued implementation of the Rural Clinical Schools (RCSs) program[6,7]. Under this scheme, 25% of all Commonwealth-funded Australian medical students are mandated to complete at least 1 year of clinical training in regional and rural locations[1,6,8]. Rurality of placement area is determined by the Australian Standard Geographical Classification – Remoteness Area (ASGC-RA) and includes ASGC-RA 2 (Inner Regional) to ASGC-RA 5 (Very Remote) locations.

The establishment of RCSs has had a positive impact on influencing medical graduates to practise rurally[4,6,7]. The majority of students who choose RCS placement have a pre-existing rural career intention[8,9]. Students who participated in extended rural training demonstrated an increased interest and actual career intention for rural medicine[1,4,6,7,9-11]. This evidence affirms that the program's aims are being reasonably achieved.

In addition to delivering long-term rural placements, RCSs are responsible for running short-term rural placements to many medical students. Both these types of opportunities have been provided by the Australian National University Medical School (ANUMS) Rural Clinical School since it was founded in 2004. The year-long rural placement is referred to as the 'rural stream' (RS), for which medical students undergo a competitive application and selection process for admittance.

Tracking of ANUMS RS graduates (2006–2016) corroborates existing evidence of the positive effects of RCSs in Australia. It was found that, during the stated period, 24.6% of RS graduates were practising in ASGC-RA 2 to ASGC-RA 5 areas compared to 9.3% of non-RS graduates[12]. It was also noted in an unpublished study that more than 80% of the ANUMS RS graduates surveyed indicated an intent or were 'somewhat interested' in working rurally, either before RS application, while participating in the program or after their vocational training[12]. However, 16.1% of the participants expressed that they no longer intend to do so. This illustrates that rural work intent, through the course of one's professional journey, is subject to change. The reasons behind this change are yet to be investigated, despite numerous studies undertaken to understand the drivers of the rural medical workforce. Other researchers also argued the value of assessing the perspectives of doctors who left or did not take practice in rural areas[13].

It can be said that the positive outcomes of RCSs in lessening the rural workforce shortage are mitigated by unknown factors. This study aimed to investigate what these factors are and understand how they led to a change in rural work intention among ANUMS RS graduates. As the crucial rural workforce policy reform period continues in Australia[5], recognising these influences can aid policymakers to design more efficient rural health strategies – in particular, interventions that prevent a shift of career plans, regain doctors' previous work intention and encourage better retention in the rural area.

Methods

Participants

This study utilised a non-probability purposive sampling method. The participants were ANUMS RS graduates from 2006 to 2016 and were recruited based on their responses to the ANUMS RCS online survey in 2016 and 2017. Those who indicated that their training and work intention had changed from rural and remote to urban locations were contacted and invited to participate in an interview. Ten out of fifteen (67%) respondents accepted the invitation. Seven of the participants were in postgraduate years 1–5 and the remaining three were postgraduate years 6–10, at the time of interview. The majority (six) of them are male, three were female and one unknown.

Research design

A qualitative research methodology was selected to examine the participants' unique observations, opinions, motivations, circumstances and experiences that directed their practice intention away from rural medicine. Data was primarily obtained through in-depth, one-on-one semi-structured interviews. Eight interviews were conducted by telephone and one was conducted face-to-face. Interviews ranged in time from 20 minutes to 35 minutes. The interviews were recorded with consent and thereafter manually transcribed verbatim. The last participant gave a comprehensive, written response to the interview questions by email. All data obtained were de-identified to preserve each participant's confidential information and privacy.

Data analysis

Two analytical methods were used to interpret the qualitative data: thematic analysis and I-poems. By using these two methods, the primary analyst was placed into distinct positions in relation to the interview subjects and the data[14]. Edwards and Weller identified that thematic analysis allows the researcher to focus on recurring and developing issues while I-poems offer a view of a participant's way of understanding and speaking of themselves[14]. In other words, the researcher's analytic ontology transitions from gazing at the interviewees with thematic analysis to looking at people's social realities beside them, by using I-poems[14]. Although the two methods each revealed unique perspectives of the data, they provided a complementary picture when combined. Thus, the relationship between the findings from respective methods provided a rich insight, with greater depth than a single methodological approach.

Thematic analysis guided by Braun and Clarke's approach was utilised for its simple and flexible nature, which allowed the researchers to tailor the methodology to the requirements of the research data[15]. As the interviews and transcriptions were done by another member of the research team, it was imperative that the recordings were checked across the transcripts by the primary researcher[15]. This was to ensure accuracy, gain familiarity and facilitate engagement with the dataset[15]. Following this, each participant's transcript interview was read twice to allow further immersion with the data.

Initial manual coding followed, and a subsequent coding framework was agreed upon by the research team. A deductive approach and a realist paradigm were used to arrive at semantic meanings purposely. The analysis concentrated on the specific aspect of each data item that was relevant to the research question. Every code generated was organised, compared and merged to form subthemes, which were subsequently developed into main themes[15]. This step was followed by an extensive and rigorous process of refinement wherein some codes, subthemes and themes were regrouped, separated, combined or discarded as needed[15]. The outcome resulted in the establishment of overarching themes that worked in harmony, collectively captured the participants' views and provided answers to the study question. Saturation, wherein no new information or themes can be identified from the dataset[16], was reached on the seventh interview. However, data analysis continued for the remaining

transcripts to confirm that data quality and depth was achieved.

The construction of I-poems occurred upon completion of the thematic analysis. I-poems is a component of the Voice-Centred Relational Method or the Listening Guide devised by Carol Gilligan and her colleagues to understand an individual's sense of self[14,17,18]. This ensued by highlighting, from the transcript, every use of the first person 'I' and the accompanying text, cutting and pasting them in the same order they appeared, arranging them in separate lines and splitting them into 'topics' or 'voices'[14,17,18]. 'Voices' refers to the subjective senses of self of the participants, several of which may be identified for one person[18]. These 'voices' may be 'conflicting or complementary, resisting or capitulating, confident or distressed, firm or struggling to make themselves heard', according to Edwards and Weller[18].

I-poems is a flexible method and, in this study, it was modified to suit the research aims[14]. This was achieved by extracting 'I' statements from the parts of the interviews that specifically related to the change of rural work intention. This produced a collection of 'voices' heard from each participant, which were then compared to identify common 'voices' among the participants. Following this, the 'voices' were summarised, grouped and interpreted with the results of thematic analysis.

Ethics approval

Ethics approval was given by the Australian National University Human Research Ethics Committee (protocol 2015/561).

Results

Thematic analysis

Three major themes were identified in the thematic analysis. These themes were 'impacts of the working environment', 'ramifications of isolation' and 'familial considerations'.

Impacts of the working environment: 'can we make it work?'

Participants perceived limited opportunities for career progression and sustenance, high-quality training and agreeable working conditions. The presence of these perceptions was sufficiently disquieting, to change the participants' intentions towards working rurally.

Eight out of the ten participants thought that practising in a rural location would not be conducive to attaining further qualifications or achieving career growth. Participants believed the scarcity of rural specialist training required them to move to or remain in a metropolitan location. Specialty training required participants to be based in major centres including for rotations.

It was deemed that some essential skills cannot be maintained rurally due to the limited breadth of medical conditions seen, places not being sizeable enough (geographically and population-wise) or having the facilities required to cater for their target patient population.

If you work in some sort of super sub specialised position or [you are a] surgeon, you just wouldn't have enough work

living down there. (ER15)

I'm applying to, like pediatrics that require you have a home base. So, you've got to move closer to Sydney, essentially for those. (CF14)

You can't keep a skill set in a sub specialty in a small place, you just don't get the exposure. (BP07)

Insufficient, inaccessible or non-existent rural educational opportunities caused participants' frustration as they regarded regular and high-quality continuing professional activities as being valuable.

Often the teaching here, they just fill in a teaching section with something like, a AMA [Australian Medical Association] presentation, or giving us a lesson on a new EMR2 computer rollout, it's just filler, that's not really teaching which, can be fairly disappointing. (CF14)

There is also a perception that city hospitals offer superior and consistent training quality. Training at 'centres of excellence' (MJ08) appears attractive to the participants as it also promotes their professional standing, reinforcing career development goals.

Achieving appropriate working conditions appeared to be unrealisable in rural areas for many of the participants. It was identified that rural doctors work extremely long hours, and this was not equitable with the hours worked by metro-based doctors. The regular and on-call roster demand was considered a problem, which was unmanageable and led to low or no recreational time. Doctors often get contacted for non-emergent medical issues during their infrequent breaks, thus encroaching on personal time. The accumulation of these episodes leads to detrimental fatigue, stress and burnout, eventually motivating a relocation to healthier work environments thought to exist in major centres.

Because being a rural doctor is really hard work. And you're tired all the time, you don't see your family, it's a bit f—d. (KM15)

… they get phone calls at random times intrusively, when there would be a more appropriate way to deal with it than to contact the doctor directly and immediately (DF10)

Ramifications of isolation: 'who are you going to call?'

Practising in a rural area is often accompanied by anticipated or experienced feelings of isolation, both socially and professionally.

Social isolation is associated with separation from previously established, long-term relationships and having new relationships solely within the work environment. Difficulties encountered in building and maintaining social relationships and networks were linked with the responsibility of maintaining a professional reputation, established and insular community relationships and friendship circles, a lack of social skills and a lack of time to participate in the locale fully.

It would be very difficult to develop friendships, or to get involved in other parts of the community. You could never go to the pub and have too many drinks because everyone knows you as the doctor in the town and there is a certain level of responsibility and a certain reputation you have to maintain in that situation. (ER15)

I think going out and being in a community for two years everybody leaves, because it's horrible after that, because you've socially isolated yourself from everything. (KM15)

Professional isolation is experienced when an absence of support from other and more senior clinicians translates into a greater scope of practice and more independence. The lack of professional support from senior clinicians contributed to the feeling of vulnerability, exacerbating the experience of professional isolation.

… you're more isolated and you don't have that, that back up you do in other major hospitals. (MM11)

I think as a specialist, you want a few years probably in a department, preferably where you have the support of senior colleagues. You're probably one of two or three people in those sort of sized towns and so it's a pretty scary prospect. (MJ08)

The difficulty experienced in accessing continuing education mentioned under the first theme also contributes to feelings of professional isolation. Seminars and other teaching sessions are often organised on weekdays, commence just after regular office hours and are facilitated in major centres. This schedule makes it impossible for rural doctors to attend, making them think that their need to travel to the location is ignored by organisers. Rural doctors end up feeling excluded from their peers.

Perhaps they forget you exist, or it's a presumption that if you're rural then you're not interested or something, which is totally wrong. (CF14)

Familial considerations: 'their way, my way?'

The wishes and requirements of participants' partners had a strong influence on rural practice intention. The partners' career opportunities in a rural location along with their preference for a non-rural lifestyle were considered significant factors. The current location of the partner and any anticipated lack of social support were also included.

Participants identified that the location of employment was a shared decision and the career of both parties needed to be considered. Often the decision was dependent on the partner being able to secure a job suited to their training and qualifications. Participants with a doctor partner indicated their partners' specialty was a major limitation due to lack of training opportunities and positions in the rural setting. There was scepticism to the viability of long-distance relationships with a preference for geographical closeness, which was seen to reduce relationship problems and decrease the risk of social isolation.

I have a partner that, is, she is in Sydney, so that's probably going to a question you were eluding to for later, about where I may end up as she is a part of the decision-making process. (CF14)

So, I think [we would consider it] in the future, obviously depending on what kind of specialty my partner does and when he does training and all those things. (KB12)

When asked if she would consider going to Sydney or another major city, KM15 answered, 'I would if my partner took me there. Which is only new, and is a possibility cause he is from Sydney.' 'It would be a partner, that would do that,' she added.

Access to immediate family was deemed a vital component of the participants' support system. The extended work hours and subsequent fatigue impede the participants' ability to travel frequently to visit family. Even moderate distances may not be feasible.

... having very young children, away from your support base, away from family in a town where you really didn't know anyone to begin with, that was pretty difficult. (PK14)

As I mentioned before, we are working very long hours so it's not like you can commute backwards and forwards ... (ER15)

Children's daycare and education, personal preferences and lifestyle factors played minor influences when deciding future job plans. Interviewees were conscious of sending their kids to good care centres and schools, which may be hard to find in rural areas. Some participants also personally liked the city and mentioned that rural towns feel 'too small' (KB12, MJ08) for them. Others mentioned that rural and urban areas do not offer the same kind of activities, stating that the 'decision to go rural is a lifestyle decision' (PK14).

I-poems

Two distinct voices and three minor voices were heard using I-poems. The two leading voices were the 'committed voice' and the 'voice of uncertainty'. The three minor voices were the 'voice of awareness', the 'restrained voice' and the 'necessity voice'.

Committed voice

The 'committed voice' has two components: the individual's commitment and dedication to their career, and the commitment to their partner in terms of relationship equality and career consideration.

The 'career-committed voice' (Box 1) communicated the importance for the participants to be seen as professionals and motivated to attain their intended career path. In order to support this aspect of self, they are driven to make strategic career choices, now and in the future. It is the same voice that directs them to pursue the highest quality training and best job opportunities available to them as identified in the theme 'impacts of the working environment'.

Another part of the 'committed voice' was heard when participants spoke of the impact their partners have in their future work location. This is distinguished as their 'partner-committed voice' (Box 2), realising that relationships are never unilateral and, consequently, the other person's ideas, feelings, insights and needs are always considered and, mostly, prioritised. They see themselves as part of a whole, a voice linked to, and seemingly difficult or impossible to separate from, that person. Therefore, their futures are intertwined.

if I had to get a pediatrics position
I would move back to Sydney
I'd be required to

Box 1: Career-committed voice – excerpt (CF14).

I always felt like
I owed it to her in a sense to get back down here
I mean my partner's actually suggested to go back to Canberra
I ... think for mine and her work

Box 2: Partner-committed voice – excerpt (PK14).

Voice of uncertainty

The 'voice of uncertainty' (Box 3) describes the participants' confused and unsure self. This voice is demonstrated with the participants' repeated statements of 'I suppose', 'I think', 'I can't say' and 'I don't know' during the interview.

The bidimensional nature of the 'committed voice', especially when interacting with factors discussed in the first and third themes, results in confusion. Balancing 'career-committed' and 'partner-committed' voices is a difficult task and leads to an internal sense of conflict as these voices might not always be synchronised. Doubts about children's education, what specialty to pursue and next career move were also apparent.

> I think it could
>
> I mean, year 11 is eight years away for my oldest child
>
> you can't predict
>
> You might move for them
>
> I'm not too sure
>
> I can't say that I would …
>
> I can't say that
>
> I'm … too anxious about it
>
> I'm not planning to move just because of it

Box 3: Voice of uncertainty – excerpts (DF10).

Minor voices

The 'voice of awareness' revealed a part of the participants' selves that acknowledges their abilities and limitations with regards to adapting to living rurally, practising without support and navigating future career possibilities.

The 'restrained voice' expressed feelings of being limited. This voice was revealed in reference to job location options, time to enjoy social activities, demands of their job and 'doctor of the town' status, stopping them from living life freely.

Lastly, the 'necessity voice' is a product of the 'committed voice', as these participants make their commitment to medicine and personal relationships known; it creates a self that has needs requiring fulfilment. Professional needs include career progression, feeling supported and receiving quality training. Personal needs identified included the need for interaction, companionship and support.

Discussion

To the researchers' knowledge, this study uniquely presents the participants' voices identified using I-poems and relates these to the themes produced in thematic analysis. The dual method approach allowed capture of the complex interplay of interaction between critical internal and external factors affecting work location decisions.

The theme 'impacts of the working environment', supported by the 'career-committed voice', echoed results from previous studies that determined specialist practice and training requirements as principal negative drivers of rural practice intention[1,19-22]. There is increasing interest in the existence of high-quality postgraduate training opportunities that enable permanent employment and career progression in rural hospitals and excellent choices, including a variety of specialties and subspecialties[1,13]. Walker and colleagues[1] additionally revealed the majority of medical students, regardless of rural work preference, believed there are good opportunities for employment in rural areas after completing their RCS term. This perception is in contrast to the present study's findings.

The Regional Training Hubs as a response to increasing demand for prevocational and vocational regional and rural training[23] have a significant role to play in developing a rural workforce. The challenge lies in ensuring that offered training is of a quality equal to or even better than that in metropolitan locations and can enable a smooth transition through to fellowship. Synergistic efforts are required from specialist medical colleges, training hospitals and even senior teaching clinicians to ensure this occurs. Furthermore, inner and outer regional medical centres may benefit from increased state and federal funding to improve health facilities and allow delivery of a broader range of specialist care training and services. It is recognised that covering each medical specialty may be unrealistic, leading to some specialist training only being available in metropolitan areas and, subsequently, limited numbers of these specialists being able to thrive in rural settings.

The value of professional satisfaction and how it is influenced by workload concerns were also reiterated[13]. It was found that resident specialists regarded clinical workload, after-hours calls and work variety as critical influences in their location decision-making process[13]. In this study, the same factors were identified to cause high work stress among the participants.

While issues of isolation are shared across different stages and fields of medicine[24,25], rural and remote medical practitioners are at heightened risk, leading to poorer health and wellbeing[24]. Professional isolation and dissatisfaction are seen as more of a rural work problem[1] due to inadequate resources, absence of senior doctors' support or inability to access sufficient leave[13,24]. In Finland, GPs reported the necessity of making decisions alone without the possibility of consulting, and a lack of feedback and mentoring among the specific factors contributing to occupational isolation[26].

Strategies to address the abovementioned factors may include actions to prevent fatigue and burnout and the feeling of professional isolation in doctors such as adequate locum relief, mentoring programs and practice orientations. These suggestions may appear costly but, when implemented, future RCS graduates intending to practise rurally may not have to consider these issues. Both the Australian College of Rural and Remote Medicine and Rural Health Education Foundation also provide support and resources to assist rural practitioners with isolation concerns[27]. The results of this study, however, suggest that these approaches may not be reaching all of the required audience, and measures for doing so should be explored.

Similar to ANUMS RS alumni, earlier RCS graduates from several universities, medical specialists and allied health professionals considered access to continuing professional development (CPD) an important determinant of rural intentions and retention[1,13,28]. This view is attributed to the requirement to gain CPD hours for continued medical registration, along with maintaining clinical competence to provide excellent patient care. As face-to-face CPD activities were also seen as a remedy for professional isolation[28], live and interactive distance education programs may be more useful to address the identified issues. This is in comparison to purely online modules, where no human interaction occurs. An alternative is ensuring that doctors in rural areas are provided with sufficient annual paid study leave entitlements.

Separation from friends, restriction on lifestyle activities and a lack of community support also concerned other RCS graduates[1]. Nursing and allied health professionals in rural New South Wales similarly described feelings of alienation and social disconnection[29]. Cosgrave and colleagues[29] stated that the extent of rural isolation is more intense during the first 12 months for individuals who are non-locals, unmarried and have no prior exposure to non-urban regions. Conversely, ANUMS RS graduates in this study had all experienced rural placement for a year and were all partnered, implying that their social isolation concerns were not linked to relationship status and rural exposure.

Moreover, partner and family proximity, support and long-term work opportunities are well documented key factors influencing rural training and practice decisions[1,13,21,22,28,30]. Female GPs whose partners have professional roles, skills and interests possibly non-transferrable to rural areas were more likely to practise in larger regional or urban communities to increase their partner/spouse's employment options[31]. An Australian study also revealed that GPs' satisfaction with partner employment opportunities and adequacy of social networks for partners significantly reduced with increasing rurality[32]. The effect of children's needs and education were also demonstrated in past studies[2,21,28,31,32]. These were not described as major issues in this research, possibly due to a young cohort of doctors, because ANUMS has only existed for 15 years, and the life stage of the participants.

Easier community integration through coordinated community efforts may make rural employment an appealing long-term career choice for both generalists and specialists. It can be facilitated through demonstration of hospitality, providing access to basic amenities, creating community links and accommodating doctor's special interests[33]. Assistance with employment and schooling for doctors' partners and children is encouraged as well as inclusion in social and community activities[33]. Transparency around opportunities in regional and remote Australia for dual-career couples may allow partners of medical trainees to develop their career path and offer greater ongoing certainty[13]. Nevertheless, when partner employment needs cannot be fully met in the rural setting, direct financial incentives as part of comprehensive retention packages may be developed[31].

The 'voice of uncertainty' derived from the I-poems was a significant finding and represented a potentially unrealised opportunity for future rural and remote location practice, as the decision to practise in a non-rural setting is not yet definitive. This voice is primarily guided by the desire of the 'career-committed voice' to fulfil their intended career path and is influenced by the availability of high-quality training and work positions, wherever they may be. Despite the majority of these positions being currently offered in major centres, there is an acknowledgement that inner regional areas may increasingly deliver these opportunities.

Contributing to the 'voice of uncertainty' is the 'partner-committed voice', which highlights the strong influence of partners in determining doctors' future work locations. As a result, doctors are compelled to respond to their partners' desires and requirements for better social support and, most importantly, sufficient employment opportunities. The 'voice of uncertainty' is consequently amplified when doctors try to navigate locations that serve both the needs of their 'career-committed' and 'partner-committed' voices, in an attempt to prevent tension between the two. The 'voice of uncertainty' may therefore be appeased, at least momentarily, when the opportunity for urban-based training and work positions for both interviewees and their partners is seen to create harmony between the 'career-committed' and 'partner-committed' voices, mainly when partners are in favour of the move to the city.

The 'voice of uncertainty', however, implies that the change in rural intention may not be complete; that it is a 'change that can still change'. ANUMS RS graduates' current career goals are still transitioning, and intentions may be shifted back to non-metropolitan areas if the requirements of both aspects of the 'committed voice' are addressed.

While geographical career intentions of New Zealand medical students at both medical school entry and exit were stable[34], work location intentions among qualified doctors were known to be volatile, with longitudinal studies reporting on their movement in and out of rural work[35-37]. This move mostly occurs during the early career stages due to personal situations and relationships[3]. For the participants, as the interplay between professional and personal factors persist, personal consideration decisions often come before professional goals[20]. Ultimately, the 'partner-committed voice' motivates clinicians to prioritise their significant others' requirements, even if it means sacrificing the prospect of a rural career.

Limitations

A limitation of this study was the inclusion of RCS graduates from only one university. While the sample is heterogeneous enough to provide a broad range of perspectives, their RCS experience was purely confined to ANUMS. Additionally, the participants' rural origin and rural bonding status, and how these compare to RCS graduates whose intention did not change, were not collected and are beyond the aims of this study; they could be a focus of future investigations.

The use of non-probability sampling may have caused self-

selection bias; those who did not participate in the study may have different responses and senses of self. Moreover, data collection via interviews may have induced recall bias. Cause-and-effect relationships cannot be established due to the study design; only associations can be made.

Qualitative research is not usually aimed at producing generalisable results. It is suggested that the same study be performed with a different and bigger population group, which may include other Australian RCS graduates who had rural placement of 1 year or longer, to ascertain if results are similar in other contexts.

As the study participants perceived that rural-based specialist training quality is inferior to that delivered in urban centres, further research is warranted to explore this. It is also now known that the change in rural intention among ANUMS RS graduates is not definite, giving this study the potential for expansion. A longitudinal qualitative study may be done by conducting follow-up interviews with the same respondents to monitor their work location trajectories.

Conclusion

Professional, social and personal factors are associated with medical graduates' loss of intention for rural practice. Factors include the availability of high-quality specialist training posts, career growth and sustenance, satisfactory work conditions, professional and social networks, personal arrangements and family requirements. A doctors' dedication to both their career and partners may create internal conflict, which can influence the uncertainty of future location of practice when unable to find an equilibrium between the two aspects of their 'committed voice'.

The change of rural work intention in some RCS graduates is thus multifactorial, complex and volatile. Nevertheless, this research complements the growing body of evidence that can inform better, newer, well-designed and specifically tailored rural health strategies to assist rural work intent among RCS graduates.

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