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# Satisfaction amid professional challenges: International medical graduates in rural Tasmania

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## RESEARCH

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## ABSTRACT

**Background**
At the time of recruitment, migration, and placement, international medical graduates (IMGs) encounter professional challenges. These challenges may include a loss of status and professional identity, professional isolation in rural practice, restrictions on medical practice, and social isolation. Understanding the nature of these challenges may facilitate the recruitment, placement, and success of international medical graduates within rural Tasmania.

**Aims**
The aim of this study was to investigate the experiences, challenges, and barriers that IMGs encounter as they work and live in rural Tasmania.

**Methods**
The study used a mixed-methods design where data were collected using a questionnaire and semi-structured interviews across the south, north, and northwest of Tasmania. IMGs were recruited through purposive snowball and convenience sampling.

**Results**
A total of 105 questionnaires were returned (response rate 30.0 per cent) and 23 semi-structured interviews were conducted with IMGs across Tasmania. Questionnaire participants indicated that the majority of IMGs are satisfied in their current employment; however, interview participants indicated there were a number of barriers to practising medicine in Tasmania as well as factors that would influence ongoing employment in the state. Despite these challenges, professional support was recognised as a key contributor to professional satisfaction, particularly among IMGs who had just arrived.

**Conclusion**
The study contributes to the current knowledge and understanding of IMGs who live and work in rural areas. The study shows that there are high levels of satisfaction among IMGs with their current position; however, the research also provides insight into the complexities and factors that impact IMGs as they work and live within rural areas such as Tasmania. This study offers an understanding for policy to improve greater retention of IMGs across rural areas.

**Key Words**
international medical graduates, professional challenges, employment, satisfaction, rural practice

## What this study adds:

**1. What is known about this subject?**
International medical graduates (IMGs) encounter professional challenges that occur at the time of recruitment and migration, and throughout employment. These professional challenges have been shown to have a negative impact on the doctor, his/her family, the medical practice, and the community.

**2. What new information is offered in this study?**
The paper highlights a number of motivators that impact why IMGs are staying or leaving rural areas, while delivering greater insight into the needs, desires, and challenges encountered by IMGs locally and nationally.

**3. What are the implications for research, policy, or practice?**

Beyond employment, career pathways, and training, there is a need to facilitate increased peer and pastoral support within the workplace and community for international medical graduates. This support includes greater orientation at the community level and at various intervals along an acute or primary care career trajectory.

## Background

Worldwide recruitment of international medical graduates (IMGs), also known as overseas trained doctors (OTDs), continues to be central to health workforce planning particularly among developed countries. This includes Australia, which has the highest number of IMGs per capita in the world.[1–3] Australia's effort to increase IMG numbers is due to a need to redress restrictions placed on medical student enrolments and IMG registrations in the 1990s.[4] This was triggered by a speculative high doctor-to-population ratio and ongoing rural health disparity.[5,6]

The medical workforce remains heavily dependent on the recruitment of IMGs to sustain rural access to health services. Rural regions experience the highest levels of medical practitioner maldistribution and the greatest health disadvantage in Australia. [7,8]

IMG recruitment remains essential to address rural workforce issues. IMGs who desire to work in Australia can do so, but there are restrictions on where they can be employed.[9] Often IMGs are employed in compulsory service programs for up to 10 years. They work in areas that are focused on addressing identified gaps in the local workforce. These are area of need (AoN) positions and district of workforce shortage (DWS) positions.[3,9–12] However, IMG retention remains problematic once the restrictions are met and is also observed among Australian medical graduates (AMGs).[13–15]

Although there are many similar challenges experienced by both IMGs and AMGs as they live and work in rural settings, IMGS encounter a number of additional challenges. These include professional challenges that occur at the time of recruitment, migration, placement, and ongoing practice. These issues include integration in the workplace, loss of status and professional identity,[16,17] professional isolation in rural practice, the need to sit further medical examinations, the restrictions on medical practice, and the social isolation experienced in rural areas.[18]

**Research aim**

This study aimed to examine the experiences and challenges of IMGs living and working in rural and remote Tasmania, and how this informs their recruitment and retention.

**Research questions**

To achieve the aim of the study, the following research questions were formulated:

1. What are the enablers and barriers that IMGs encounter as they live and work in Tasmanian communities?
2. What are the integration process and strategies that facilitate trust, cooperation, and connections between IMGs, other healthcare professionals, and the community?
3. What are the strategies used by IMGs to improve community engagement and integration?

## Method

The study used a mixed-methods approach which is "a procedure for collecting, analysing, and 'mixing' or integrating both quantitative and qualitative data at some stage of the research process... for the purpose of gaining a better understanding of the research problem."[19] The rationale for using mixed methods was to better understand the lived experience, the challenges IMGs encounter, and to gain greater insight into IMGs as they migrate, work, and live in rural areas.

**Study setting**

Data were collected from all IMGs Tasmania-wide, who were both mandated and non-mandated to work in compulsory service programs in the state. Tasmania is a small island state off the southeast coast of mainland Australia with a population of over 500,000,[20] and which has three area health services, each containing a major public hospital. This includes the Royal Hobart Hospital (RHH) in the south, Launceston General Hospital (LGH) in the north and the North West Regional Hospital (NWRH) in Burnie, which incorporates the Mersey Hospital campus in Latrobe in the northwest of Tasmania.[21]

Currently, there is very little research concerning the integration and acculturation of IMGs as they reside in rural Tasmania. Due to its unique situation, the regional and remote island state of Australia provided an encapsulated microcosm of many of the challenges that IMGs may encounter elsewhere in Australia.

**Study sample**

The study sample included all doctors who had obtained their primary medical qualifications in a country other than Australia. This cohort was a heterogeneous group of IMGs, who represented many and varied cultures, from both English-speaking and non-English-speaking backgrounds.

**Data collection**

Data were collected using a questionnaire and semi-structured interviews.[34] The questionnaire took a "snap shot" of IMGs in Tasmania. The confidential self-administered Tasmanian IMG questionnaire (Appendix A) was adapted from the questionnaire developed by Hawthorne et al.[22] and used in Victoria, a neighbouring state to Tasmania. Within the questionnaire, each participant was asked to provide information regarding their social demographics, their past and current medical employment, and included years of medical experience and previous rural experience.

In addition to satisfaction with employment, participants were also asked if they had experienced any barriers or disadvantages in their current position. This may have included problems such as discrimination or challenges navigating a new medical system as a result of being an IMG. Lastly, each respondent who completed the questionnaire was asked to rate the level of importance against 17 characteristics of their current residential location which would most likely influence their ongoing employment.

The questionnaire was administered both in hardcopy format and online between March and July 2012. It was distributed through third parties such as key stakeholders and informants, such as directors of clinical training and key support staff who had regular contact with IMGs. A convenience sample of follow-up interviews was conducted through a "call for volunteers" at the end of the questionnaire. Interviews were conducted with n=23 (21.9 per cent) of the n=105 survey participants and occurred either face-to-face or via telephone. Interviews were between 15 and 90 minutes and were audio recorded with the participant's oral and written consent. Ethical approval for the study was obtained by the Human Research Ethics Committee (Tasmania) Network (H0012008).

**Data analysis**

All quantitative data were coded and entered into Statistical Packages for Social Science (SPSS) version 20 (SPSS Inc., Chicago, Illinois), checked and explored for data integrity and distribution. In addition to descriptive statistics, inferential statistical techniques were employed to determine the significance of the results. Non-parametric tests such as Chi-square ($\chi^2$) tests were performed. If the Chi-square ($\chi^2$) assumptions were violated, Fisher's Exact test was used. The Wilson procedure was used, as described by Newcombe,[23] to calculate the 95% confidence intervals for percentages of important constructs within the data. Lastly, ordinal logistic regression, using the GENLIN procedure was used to test significance between variables. Results were considered statistically significant at $p<0.05$.[24]

The interview data were transcribed, coded, and analysed by one researcher using NVivo v10.0 software (QSR International Pty Ltd., Doncaster, Australia). Thematic analysis was used to identify recurring themes, patterns of living, behaviour and experience, which then became a description of phenomenon.[25] This also includes newly identified or emerging themes. It was anticipated the qualitative data would illuminate the challenges experienced by IMGs in rural Tasmania who may be experiencing a number of employment challenges. Additional qualitative data was sourced from open-ended sections of the questionnaires and individual interviews. The central purpose of the qualitative component of the project was to complement the quantitative analysis and to enrich the findings with intricate meanings.[26–29]

## Results

A total of 105 questionnaires were returned representing 30.0 per cent of the IMG population in Tasmania (n=350). IMGs originated from 30 different countries across the globe. The majority of IMGs were from India, Sri Lanka, Iran, Myanmar, South Africa, and Malaysia. Other countries included, but were not limited to, Pakistan, the Philippines, Vietnam, Mexico, Lebanon, the United States, Brazil, Spain, and Germany as outlined in Table 1.

Of the respondents, 34.4 per cent (n=36) were working in general practice, while the remaining 65.6 per cent (n=69) were working in acute care sector positions. This included hospital registrars 26.7 per cent (n=28); hospital residents including interns 21.1 per cent (n=22); and specialists 13.3 per cent (n=14). In addition, 38.8 per cent (n=40) of respondents were working in the northwest region, 33.7 per cent (n=35) in the northern region, and 27.6 per cent (n=30) of respondents were working in the southern region.

Twenty-two IMGs (21 per cent) participated in the semi-structured interviews, of which 14 were male. The IMGs included interns, registered medical officers (RMOs), registrars, consultants, and general practitioners who worked full-time or part-time in various capacities within

the acute or primary healthcare sectors. A high proportion of IMGs were working in and around the three major population centres of Hobart, Launceston, and Burnie.

**Table 1: Country of origin among IMG respondents**

| Origin (n=105) | Country | Number (n/N) | Percentage (%) |
|---|---|---|---|
| Asia (n=61) | India | 33/105 | 31.4 |
| | Sri Lanka | 9/105 | 8.6 |
| | Myanmar | 7/105 | 6.7 |
| | Malaysia | 4/105 | 3.8 |
| | Pakistan | 3/105 | 2.9 |
| | Indonesia | 2/105 | 1.9 |
| | Bangladesh | 1/105 | 1.0 |
| | Philippines | 1/105 | 1.0 |
| | Vietnam | 1/105 | 1.0 |
| Africa (n=11) | South Africa | 5/105 | 4.8 |
| | Nigeria | 2/105 | 1.9 |
| | Egypt | 1/105 | 1.0 |
| | Libya | 1/105 | 1.0 |
| | Mauritius | 1/105 | 1.0 |
| | Zimbabwe | 1/105 | 1.0 |
| Middle East (n=10) | Iran | 8/105 | 7.6 |
| | Lebanon | 1/105 | 1.0 |
| | UAE | 1/105 | 1.0 |
| Americas (n=6) | USA | 3/105 | 2.9 |
| | Brazil | 1/105 | 1.0 |
| | Colombia | 1/105 | 1.0 |
| | Mexico | 1/105 | 1.0 |
| Europe (n=6) | Germany | 3/105 | 2.9 |
| | Russia | 2/105 | 1.9 |
| | Spain | 1/105 | 1.0 |
| UK (n=6) | United Kingdom | 6/105 | 5.7 |
| Oceania (n=5) | Australia | 4/105 | 3.8 |
| | New Zealand | 1/105 | 1.0 |

**Past and current employment profile**

The mean (±SD) length of time an IMG had worked prior to arriving in Australia was 9.37±6.7 years, as shown in Table 2. In addition, 53.3 per cent of IMGs (n=56) had worked in rural areas for a mean length of time of 5.10±4.8 years before migrating to Australia.

It was indicated by 57.9 per cent of respondents that they had immediately gained employment through area of need or other similar medical position. The majority, 82.5 per cent, of IMGs were on contracts of duration between 7–24 months. In addition, 50.6 per cent were working between 31 to 40 hours a week, while 5.6 per cent were working less than 30 hours a week; 2.2 per cent were currently not working (Table 3).

**Table 2: Years of experience prior to migration**

| Years of experience | Number (n/N) | Percentage (%) |
|---|---|---|
| 1–5 years | 37/105 | 35.2 |
| 6–10 years | 28/105 | 26.4 |
| 11–15 years | 22/105 | 20.9 |
| 16–20 years | 11/105 | 10.4 |
| 21–25 years | 6/105 | 5.7 |
| 26 or more years | 1/105 | 0.9 |

**Table 3: Number of hours worked per week**

| Number of hours | Number (n/N) | Percentage (%) |
|---|---|---|
| 0 hours | 2/91 | 2.2 |
| 1–10 hours | 0/91 | 0.0 |
| 11–20 hours | 2/91 | 2.2 |
| 21–30 hours | 3/91 | 3.4 |
| 31–40 hours | 46/91 | 50.6 |
| 41–50 hours | 22/91 | 25.0 |
| 51–60 | 3/91 | 3.0 |
| 60+ hours | 13/91 | 14.0 |

**Satisfaction with employment**

The data showed that 86.8 per cent (n=79) of IMGs were "satisfied" in their current position, while the remainder were unsure; no IMGs indicated they were dissatisfied. However, it must be noted that 14 respondents did not complete this specific question, as indicated in Table 4. In addition, 85.7 per cent (78/91; 95% CI, 77–91) of the IMGs were satisfied with supportive colleagues and 88.0 per cent (81/92; 95% CI, 79–93) were satisfied with the friendliness of their patients.

**Table 4: Satisfaction with IMGs' current position**

| Satisfaction level | Number (n/N) | Percentage (%) | 95% CI |
|---|---|---|---|
| Satisfied | 79/91 | 86.8 | 95% CI, 78–92 |
| Unsure | 12/91 | 13.2 | 95% CI, 7–21 |
| Dissatisfied | 0/91 | 0.0 | – |

An exploration of the various associations and relationships was undertaken to determine if an IMG's country of origin and place of current employment was associated with level of professional satisfaction.

*Satisfaction with medical facilities of current employment*

Analysis of the data indicated that 82.0 per cent (76/92; 95% CI 73–89) of IMG respondents were satisfied or very satisfied with the medical facilities and resources in their

current position. However, IMGs from Asia were more satisfied with the medical facilities and resources in their current position than IMG respondents from other regions of the world (Chi-Square value $\chi^2$ (15, N=89) =26.138, $p$=0.018 < 0.05).

*Satisfaction with community where current employed*

Conversely, 85.9 per cent (79/92; 95% CI, 77–91) of the IMGs were satisfied with the friendliness of the community where they were currently employed. However, those IMGs working in the northwest region, a more rural and regional area of Tasmania, were more satisfied with the community they were working in than those IMG respondents working in the more urban regions of northern and southern Tasmania (Chi-Square value $\chi^2$ (6, N=92) =12.296, $p$=0.038 < 0.05).

**Barriers to practice medicine**

It was indicated by 44.4 per cent (41/93; 95% CI 34–54) of respondents that because of being an IMG, they had experienced a number of barriers or disadvantages in their current position, which led to their practice being hindered in some way. Conversely, 55.6 per cent (52/93; 95% CI 45–65) reported they had not had experienced these concerns. Barriers were further discussed within the interviews and included bureaucracy and red tape; adapting to the new medical system; and the ability to adequately communicate with colleagues and patients. Each of these will be described further.

*Bureaucracy and red tape*

One of the first challenges most IMGs faced before or as they entered Australia was bureaucracy and what many termed "red tape". In most cases, bureaucracy concerns were highlighted to occur from the Australian Health Practitioner Regulation Agency (AHPRA), the Australian Medical Council (AMC), the Department of Immigration, navigating the Medicare system itself, to the legislation concerning the 10-year Moratorium. One IMG stated: *"The bureaucracy to come over here and get registration… almost drove me mad."* (IMG 4). Another IMG stated: "*I was looking for advice about the AMC exam, as I had no idea, but I couldn't find anyone." (IMG 15).*

*New medical system challenges*

It was noted among IMGs that the clinical element of their position was similar to positions that they held in home countries, although some differences were recognised. This included exposure to a greater number of health conditions, such as chronic medical conditions, sexually transmissible infections (STIs), mental health, palliation of a dying patient, and being unfamiliar with diagnoses such as "acopia". Nevertheless, it was expressed that the clinical elements of employment were easier to comprehend and develop, than navigating the medical system itself. One IMG commented; "*Medicine wasn't a problem; it was just the health system being different that was the problem.*" (IMG 6). Another IMG stated: "[*we] know the disease and what you need to do with it, but [we] don't know the protocol over here...*" (IMG 3).

Stress was a major outcome of being unable to navigate the medical system effectively, with many stating they felt they were just "thrown in" without adequate orientation. As such, one IMG stated, "*the system itself is difficult… and it's something that we have to get used to first before you really have to get comfortable.*" (IMG 8). Although many IMGs could not pinpoint a time frame, three IMGs stated it was at least 12 months to two years before they felt comfortable enough to navigate the medical system effectively. Nevertheless, another IMG highlighted that although there were some initial challenges in navigating the medical system, these were outweighed by the positives of working in the Australian health system.

*Communication*

Beyond navigating a new medical system, communication was voiced to be the greatest challenge IMGs encountered. This extended from communication between colleagues to both patient and doctor understanding each other. It was stated that patients and colleagues often did not understand the doctor when speaking to them. In addition, it was reported some IMGs were having difficulty understanding others, but "*will not give any indication that they have misunderstood... to save face. That issue has been a big misunderstanding [as] some are perceived as rude or uncooperative.*" (IMG 4).

Nevertheless, IMGs stated most patients and colleagues were very empathetic when language was felt to be a barrier. In most cases, it was elderly patients who were more challenged by a clinical encounter. However, IMGs who were in more rural areas stated they would try *"not to use medical jargon, [but] to use simple terms"* (IMG 20). To this, patient education books were used regularly by this IMG to aid with patient encounters in her general practice.

**Factors influencing IMGs ongoing employment in the area**

The data demonstrated 95.5 per cent (88/92; 95% CI 89–98) of IMG respondents rated improved medical facilities and resources as important to very important in influencing ongoing employment in the area. However an IMG's

country of origin and his/her view on the importance of having improved medical facilities was also highlighted to influence future employment (Wald $\chi^2(3) = 11.716$, $p=0.008$ <0.05) IMGs from Asia compared to those from America viewed improved medical facilities as an important factor to impact ongoing employment, as indicated in Table 5. There was no statistical significance between other countries.

**Table 5: Ordinal logistic regression of improved medical facilities influencing ongoing employment**

| Region | OR | 95% CI | Wald $\chi^2$ | df | *P* value |
|---|---|---|---|---|---|
| Asia | 43.23 | 4.90 to 381.02 | 11.509 | 1 | .001 |

In addition, access to cultural or religious foods or goods was highlighted to influence ongoing employment (Wald $\chi^2(3) = 14.110$, $p=0.003$ <0.05). It was shown that 54.5 per cent (51/92; 95% CI 45-65) of IMG respondents rated access to cultural or religious foods or goods as important to very important. However, IMGs from Asia and Africa indicated access to cultural or religious foods or goods was more important to influence ongoing employment when compared to those IMGs from Europe, as shown in Table 6. There was no statistical significance between any other regions.

**Table 6: Ordinal logistic regression of access to cultural or religious foods influencing ongoing employment**

| Region | OR | 95% CI | Wald $\chi^2$ | df | *P* value |
|---|---|---|---|---|---|
| Asia | 13.88 | 3.43 to 56.20 | 13.60 | 1 | .000 |
| Africa | 6.58 | 1.17 to 36.94 | 44.58 | 1 | .032 |

The data analysis showed 59.8 per cent (55/92; 95% CI, 49–69) of IMGs indicated *access to* community members from the same cultural was important in relation to influencing ongoing employment, while 77.0 per cent (70/91; 95% CI, 67–84) of IMG respondents rated *settlement near community member from the same culture* as not very important to unimportant. In the case of settlement near community members from the same culture, an IMG's country of origin was highlighted to be influential (Wald $\chi^2(3) = 14.769$, $p=0.002$ <0.05). IMGs from Europe viewed settlement near members of the same culture as significantly less important to future employment than IMGs from Africa as outlined in Table 7. There was no statistical significance between other countries.

**Table 7: Ordinal logistic regression of settlement near cultural community influencing ongoing employment**

| Region | OR | 95%CI | Wald$\chi^2$ | df | *P* value |
|---|---|---|---|---|---|
| Europe | 23.43 | 3.02 to 181.25 | 9.13 | 1 | .003 |

**Professional support for IMGs**

To meet many of the professional transition challenges, interview participants highlighted the support, both professionally and socially, which was currently available to IMGs and their families. This included both formal and informal support, which encompassed support from colleagues, peers, and provided by the particular recruitment, hospitals, and training agencies. In addition, IMGs also highlighted some of the current inadequacies, including the formal and informal ways in which they accessed support for themselves. It was highlighted that many IMGs, because of their experiences, were acting as a source of formal and informal support for newer IMGs. Each of these will now be described further.

*Support provided by colleagues and peers*

Eighteen of the 23 IMGs interviewed had experience of support, which was provided by colleagues, peers, and professional bodies. A number of the IMGs provided some insightful reasons why there was a high level of support, particularly from colleagues. One IMG working in acute care, when speaking of why support was good in Tasmania, stated: "*everybody is just like family here… they know you more and they are willing to help you more. In terms of support, I think the support here is much better compared to other states such as [Victoria].*" (IMG 11).

The assistance and support provided was, in most cases, attributed to the proximity and closeness of colleagues and other staff within the acute and primary care settings. However, it must be noted within the primary setting, it was those IMGs which were closer to larger population centres and who worked in larger general practice settings who reported greater support from colleagues. Those IMGs in more rural and isolated general practices had support; however, it was more intermittent or indirect.

*Support from within and a desire to help new IMGs*

Those IMGs who experienced hardship, difficulties, and problems when first arriving in Tasmania, are those who because of their experiences became staunch advocates and key individuals for new IMGs when they were employed. They provide and continue to provide informal and formal advice to new IMGs. In some cases, these IMGs became examiners, participated in IMG mentorship or supported the development of programs aimed at assisting new IMGs entering the Tasmanian workforce. One IMG who was impacted by his experience said: "*you understand what you have gone through and you don't want others going through that.*" (IMG 6). At times the support provided was giving information; however, in some cases IMGs would

make a concerted effort to provide care and even physical support when new IMGs first arrive.

## Discussion

This study aimed to examine the experiences and challenges of IMGs living and working in rural and remote Tasmania, and how this informs their recruitment and retention. The study shows that there are high levels of satisfaction among IMGs with their current position; however, it also provides insight into the complexities and factors that impact IMGs as they work and live within rural areas, such as Tasmania.[3,30,34,35] As such, the study contributes to the current knowledge and understanding of IMGs who live and work in rural areas.[3,18,30–34]

This study also provides an improved awareness of the underlying relationship hegemony between IMGs, the institutions in which they work, and associated professional bodies.[36] In addition, those IMGs who stayed longer in communities demonstrate a capacity of perseverance, determination, and a desire to help newer IMGs overcome the barriers they may encounter. As such, as people selectively acquire the values, interests, attitudes, skills, and knowledge of the dominant culture, it provides the ability to generate capital, and the ability to integrate within the new community.[37–40] It was also revealed that effective communication inhibits frustration and improves community and clinical encounters.

The questionnaire and interviews were conducted among IMGs in Tasmania and due to the low response rate the findings may be subject to response bias or may not be generalisable to all IMG populations.[28,41,42] The low response rate may be a reflection of the newer IMGs being reluctant to complete the questionnaire as it was indicated that doing so would somehow impact their AMC clinical exams, which many were awaiting to undertake. In addition, there was the potential for recall bias of interview participants, as two IMGs had been living and working in Tasmania for more than 20 years.

Furthermore, the study focused on all IMGs within Tasmania, rather than mandated or non-mandated IMGs, and this may have potentially impacted the findings such as overall satisfaction levels demonstrated elsewhere in Australia.[3,22] Regardless, the majority of IMGs were satisfied with their current position with similar responses regarding satisfaction with the medical facilities and communities where each IMG was employed. Much of the previous IMG research has focused on employment support and satisfaction as a measure of integration and settlement success.[1,22,30,33–35] Employment itself, coupled with career pathways and training opportunities,[14,34,35] were highlighted within this study as contributory factors of professional satisfaction and for leaving Tasmania. However, it was also noted that both formal and informal support had a large impact on integration and retention in the state.[18,31]

This study offers some implications for policy augmentation to improve greater retention of IMGs across rural areas. Beyond employment, career pathways and training, there is a need to facilitate increased peer and pastoral support within the workplace and community.[43] The support required needs to include greater orientation at the community level and at various intervals along an acute or primary care career trajectory, both in terms of healthcare system processes and what programs or services are available. Lastly, individual case management may be required for those individuals and their families who demonstrate lower levels of positive transition within the workplace and community.

Despite the outcomes, a number of unanswered questions remain and future directions for research were highlighted. These future directions include what the views and experiences of IMG spouses or families are to provide an additional layer of understanding and greater depth to the integration of IMGs and their families as they live and work in rural areas. In addition, it would be vital to explore the issues, barriers, rationale, and motivators among those IMGs who have worked in rural Australia, but who now work in urban settings. Lastly, a longitudinal approach would be constructive to monitor the long-term prospects, outcomes, career trajectories, and movement of IMGs within Australia.

## Conclusion

The views, knowledge, and understandings of IMGs have been examined through the lived experience of IMGs working in Tasmania. It was demonstrated that the IMGs have come from a large number of countries, cultures, and religious backgrounds. Through both questionnaire and interviews, the IMGs have highlighted their employment satisfaction, barriers to practising medicine, what influences contribute to ongoing employment, and the current and future support that is required. Many of these aspects reflect the current data regarding IMGs across Australia and internationally.[14,34,44,45] In addition, the study highlights there is high level of professional satisfaction among IMGs, while identifying key mechanisms to support and improve the retention of IMGs within Tasmania. The study adds to existing knowledge by highlighting peer and pastoral

support, and by identifying that greater uniformity and coordination are required to ensure the professional needs of IMGs are met as they migrate and work in a new country.

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## PEER REVIEW

Not commissioned. Externally peer reviewed.

## CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

## ETHICS COMMITTEE APPROVAL

Human Research Ethics Committee (Tasmania) Network (H0012008)

## Appendix A

# SECTION 1: YOUR BACKGROUND

Please tick (√) the correct answer or write your answer in the space provided.

**1. What is your gender?**

☐ Male ☐ Female

**2. What is your age group?**

☐ 20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ 60+

**3. In which country were you born?**

**4. Which language(s) other than English do you currently speak at home?**

**5. What is your current marital status?**

☐ Never married
☐ Married / de facto
☐ Separated / divorced
☐ Widowed

**6. Was your spouse born in Australia?**

☐ Yes
☐ No
☐ Not applicable

**7. Do you have any children?**

☐ Yes
☐ No

**8. If yes, how many dependent children do you have living with you?**

**9. What is your religion?**

☐ Christian
☐ Islam
☐ Buddhist
☐ Hindu
☐ No religion
☐ Other (please specify)

# SECTION 2: CURRENT EMPLOYMENT AND LOCATION

Please tick (√) most the suitable answer or write your answer in the space provided.

**10. Where are you currently employed? (Post code of City or Town)**

**11. How long have you been working in this location now?** Years Months

**12. How much longer do you think you will work here in this job?** Years Months

**13a. How much longer do you think you would like to stay?**
- Short term
- Medium term
- Long term

**13b. How much longer would your family like to stay?**
- Short term
- Medium term
- Long term

**14. Do you feel you have experienced any barriers in practicing medicine in your current position, as a result of being an overseas qualified doctor?**
- Yes
- No

Comments

**15. Do you feel you or your family have experienced any discrimination or disadvantages in living in your current community as a result of being a migrant?**
- Yes
- No

Comments

## SECTION 3: YOUR MIGRATION

Please tick (√) the suitable answer or write your answer in the space provided.

**16. Which year did you first arrive in Australia?**

**17. When you came to Australia, what immigration category did you migrate under?**

- Independent (skilled)
- Employer nomination scheme
- Family
- Humanitarian/ refugee
- Temporary medical doctor (422 or 457 visa)
- Occupational trainee Student
- Other (please specify)

**18. What is your current residential status?**

Permanent resident  Australian Citizen  Temporary resident

**19. When you first came to Australia, did you intend to live in this country:**

Permanently  Temporarily  Unsure

**20a. How good did you feel your English was at the time you first migrated?**

- English is my first language
- Fair
- Very good
- Poor
- Good

**20b. When using English, how satisfied are you with your communication skills in <u>professional</u> situations**? (Tick (√) one)

| Very Satisfied | Satisfied | Unsure | Dissatisfied | Very Dissatisfied |
|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ |

**20b. When using English, how satisfied are you with your communication skills in <u>social</u> situations**? (Tick (√) one)

| Very Satisfied | Satisfied | Unsure | Dissatisfied | Very Dissatisfied |
|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ |

# SECTION 3: YOUR MIGRATION (Continued)

**21. Many overseas trained doctors have lived and worked in a range of international and Australian locations.**
Please tick (√) the statement that best describes your relocation from your place of birth to Australia

- ☐ Moved directly from my country to Australia
- ☐ Moved from my country to live in one other country, then to Australia
- ☐ Moved from my country to live in two other countries, then to Australia
- ☐ Other (please specify)

**22. Please tick (√) the 3 most important reasons for coming to Australia**

- ☐ To accept current medical position
- ☐ To gain better (or better paid) medical employment
- ☐ To gain a safer/more secure environment
- ☐ To gain a better standard of living for self/family
- ☐ To join family/friends/spouse
- ☐ To gain a first medical qualification
- ☐ To gain postgraduate training/ further training
- ☐ Other (please specify)

**23. If you migrated directly to Tasmania, please tick (√) the 3 most important reasons for coming to this state:**

- ☐ To accept current medical position
- ☐ To gain better (or better paid) medical employment
- ☐ To gain a safer/more secure environment
- ☐ To gain a better standard of living for self/family
- ☐ To join family/friends/spouse
- ☐ To gain a first medical qualification
- ☐ To gain postgraduate training/ further training
- ☐ Other (please specify)

**24. If you migrated to Tasmania, after living in another state of Australia please tick (√) the 3 most important reasons for choosing to relocate here:**

- ☐ To accept current medical position
- ☐ To gain better (or better paid) medical employment
- ☐ To gain a safer/more secure environment
- ☐ To gain a better standard of living for self/family
- ☐ To join family/friends/spouse
- ☐ To gain a first medical qualification
- ☐ To gain postgraduate training/ further training
- ☐ Other (please specify)

# SECTION 4: YOUR QUALIFICATIONS & REGISTRATION

Please tick (√) the suitable answer or write your answer in the space provided.

**25. What is your highest overseas medical qualification and which country did you obtain it?**

Qualification:
Country:

**26. If you have studied here, what is your highest Australian medical qualification?**

Qualification:

**27. What is your current medical registration? And when did you first get medical registration in Australia?**

Current registration:
Year when first registered:

**28. In which state did you <u>first get registration</u> as a doctor in Australia?**

- ☐ ACT
- ☐ NSW
- ☐ NT
- ☐ QLD
- ☐ SA
- ☐ Tas
- ☐ Vic
- ☐ WA

**29. In which state(s) in Australia have you worked in medicine so far?**

- ☐ ACT
- ☐ NSW
- ☐ NT
- ☐ QLD
- ☐ SA
- ☐ Tas
- ☐ Vic
- ☐ WA

**30. How quickly did you find medical employment after arriving in Australia? Tick (√) one**

- ☐ Immediately: recruited for current ‘Area of Need’ position
- ☐ Immediately: recruited to fill other ‘Area of Need’ position
- ☐ Immediately: recruited to fill other medical position
- ☐ 1-3 months post-arrival
- ☐ 4-6 months post-arrival
- ☐ 7-12 months post-arrival
- ☐ 12-24 months post-arrival
- ☐ More than 24 months post-arrival

Other (please specify)

# SECTION 5: MEDICAL EMPLOYMENT HISTORY

Please tick (√) the suitable answer or write your answer in the space provided.

**31. Please list the countries you have worked as a doctor prior coming to Australia?**

**32. How many years' experience did you have working as a registered doctor before you migrated to Australia?**

Number of years:

**33. Did you have any previous experience working in rural areas before you migrated to Australia?**

☐ Yes
☐ No, go to question 35

**34. If yes, how many years of rural practice did you complete?**

Number of years:

**35. What is your current medical position, hours work per week and contract length?**

Type of medical work:
Hours per week: hours
Contract length Years Months

**36. How satisfied are you with your current position?** (Tick (√) one)

| Very Satisfied | Satisfied | Unsure | Dissatisfied | Very Dissatisfied |
|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ |

# SECTION 6: CURRENT LIFESTYLE

**37. Can you rate your level of satisfaction with the following aspects of your current position in the chart below?** (Tick (√) the most suitable answer for each row)

| | Very Satisfactory | Satisfactory | Fair | Very Unsatisfactory |
|---|---|---|---|---|
| **a).** Type of work | | | | |
| **b).** Medical location | ◯ | ◯ | ◯ | ◯ |
| **c).** Relevance to your skills/past experience | ◯ | ◯ | ◯ | ◯ |
| **d).** Good/ supportive colleagues | ◯ | ◯ | ◯ | ◯ |
| **e).** Salary level | | | | |
| **f).** Level of professional support | ◯ | ◯ | ◯ | ◯ |
| **g).** Access to training/supervision | | | | |
| **h).** Medical facilities/ resources | ◯ | ◯ | ◯ | ◯ |
| **i).** Access to specialist services | | | | |
| **j).** Friendliness of your patients | ◯ | ◯ | ◯ | ◯ |
| **k).** Friendliness of the local community | | | | |
| **l).** Access to public transport | ◯ | ◯ | ◯ | ◯ |
| **m).** Access to private transport (own car) | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

**38. Can you please rate the following non-professional aspects of your current lifestyle?**

| | Very Satisfactory | Satisfactory | Fair | Very Unsatisfactory |
|---|---|---|---|---|
| **a).** Appeal of location | | | | |
| **b).** Size of city/town | ◯ | ◯ | ◯ | ◯ |
| **c).** Friendliness of people | | | | |
| **d).** Quality of facilities (transport, shops etc.) | ◯ | ◯ | ◯ | ◯ |
| **e).** Access to employment for partner/spouse | | | | |
| **f).** Access to good schools | ◯ | ◯ | ◯ | ◯ |
| **g).** Access to training/supervision | | | | |
| **h).** Access to religious facilities | ◯ | ◯ | ◯ | ◯ |
| **i).** Access to friends/ family members | | | | |
| **j).** Access to cultural community & resources | ◯ | ◯ | ◯ | ◯ |
| **k).** Access to social activities | | | | |
| **l).** Access to cultural or religious foods or goods | ◯ | ◯ | ◯ | ◯ |
| **m).** Access to public transport | | | | |
| **n).** Access to private transport (own car) | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

# SECTION 6: CURRENT LIFESTYLE

**39. To what extent are the following aspects of residential location likely to influence where you work in the future?** (Tick (√) the most suitable answer for each row)

| | Very important | Important | Not very important | Unimportant |
|---|---|---|---|---|
| **a).** Job satisfaction | ◯ | ◯ | ◯ | ◯ |
| **b).** Improved medical facilities/ resources | ◯ | ◯ | ◯ | ◯ |
| **c).** Higher salary | ◯ | ◯ | ◯ | ◯ |
| **d).** Shorter working hours | ◯ | ◯ | ◯ | ◯ |
| **e).** Less on-call responsibility | ◯ | ◯ | ◯ | ◯ |
| **f).** Improved support from colleagues in health practice or hospital | ◯ | ◯ | ◯ | ◯ |
| **g).** Access to metropolitan location | ◯ | ◯ | ◯ | ◯ |
| **h).** Settlement near ethnic community | ◯ | ◯ | ◯ | ◯ |
| **i).** Access to employment for partner/spouse | ◯ | ◯ | ◯ | ◯ |
| **j).** Access to good schools | ◯ | ◯ | ◯ | ◯ |
| **h).** Access to religious facilities | ◯ | ◯ | ◯ | ◯ |
| **i).** Access to friends/ family members | ◯ | ◯ | ◯ | ◯ |
| **j).** Access to cultural community & resources | ◯ | ◯ | ◯ | ◯ |
| **k).** Access to social activities | ◯ | ◯ | ◯ | ◯ |
| **l).** Access to cultural or religious foods or goods | ◯ | ◯ | ◯ | ◯ |
| **m).** Access to public transport | ◯ | ◯ | ◯ | ◯ |
| **n).** Access to private transport (own car) | ◯ | ◯ | ◯ | ◯ |

Other (please specify) _____

**40. What are your plans at this stage?** (Tick (√) one)

- ☐ Stay in current position for the foreseeable future
- ☐ Change medical positions in Tasmania
- ☐ Move interstate
- ☐ Move to another country

If you are moving where do you intend to move to?

_____

**41. Are your future plans based on:** (Tick (√) all that apply)

- ☐ Employment reasons
- ☐ Family reasons
- ☐ Community reasons
- ☐ Other (please specify) _____

# SECTION 6: CURRENT LIFESTYLE

**42. Please provide any other comments which you feel may be vital for IMGs professional or social health and wellbeing in Tasmania?**

**Thank you sincerely for taking time to complete this survey**
**The results will make an important contribution to understanding the challenges, which face IMGs and their families in Tasmania.**