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ORIGINAL RESEARCH

Benefits and challenges to ophthalmology training via the Specialist Training Program

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Abstract

Introduction: The Specialist Training Program (STP) is a commonwealth funding initiative to support specialist medical training positions in regional, rural and remote areas, and in private settings. The program helps to improve the skills and distribution of the specialist medical workforce by providing trainees experience of a broader range of healthcare settings.

Objective: To examine the benefits and challenges of ophthalmology training delivered by the STP in regional, rural, remote, and/or private settings across Australia.

Design: Qualitative design involving semi-structured in-depth interviews with thirty-two participants experienced in the delivery of ophthalmology training at STP posts including ophthalmology trainees ($n = 8$), STP supervisors and clinical tutors ($n = 16$), and other stakeholders ($n = 8$).

Findings: Training delivered at STP posts was reportedly beneficial for ophthalmology trainees, their supervisors and the broader community given it enabled exposure to regional, rural, remote and private settings, access to unique learning opportunities, provided workforce support and renewal, and affordable ophthalmic care. However, all participants also reported challenges including difficulties achieving work/life balance, unmet training expectations, a lack of professional support, and financial and administrative burden. Malalignment between trainee preferences for STP posts, low STP literacy and limited regional, rural and remote training experiences were also seen as missed opportunities to foster future rural ophthalmic workforce development.

Discussion: The STP improves access to ophthalmic care in underserved populations while enabling valuable rural and/or private practice exposure for medical specialist trainees and workforce support for supervising ophthalmologists.

Conclusion: Efforts are needed to improve the quality of training experiences provided at STP posts and post sustainability. Although research is needed to investigate the longer-term benefits of the STP to rural and/or private workforce

recruitment and retention, RANZCO should develop further regional, rural and remote STP posts to help realise future rural practice intention amongst ophthalmology trainees.

KEYWORDS

medical specialist, ophthalmology, rural health, vocational training, workforce

1 | INTRODUCTION

The Australian ophthalmology workforce is maldistributed, with only 16% of ophthalmologists practising outside of metropolitan cities.[1] To address the maldistribution of medical specialists, the Commonwealth Government Department of Health has invested in the Specialist Training Program (STP) initiative.[2] The STP provides funding support to enable medical specialist trainees to rotate through an expanded range of settings beyond traditional public teaching hospitals, including regional, rural, remote and private facilities, with the anticipation of addressing the projected growth in domestic graduates, improving workforce distribution and enhancing the quality of the future specialist workforce to meet community needs for specialist medical services.[2,3] A key objective of the STP is to influence future workforce distribution towards areas of unmet community need, including regional, rural and remote locations (areas classified as Modified Monash [MM] categories 2–7), by providing positive clinical training experiences in settings that will encourage trainees to consider a rural career upon qualification.[2] However, comparatively little research has been published on the training provided and its impact on the subsequent work locations of medical specialists.[3] Indeed, some research points to the program's lack of success in preparing trainees for rural work or encouraging specialists to work in a rural area once qualified.[4]

To align fiscal investment with anticipated health workforce needs, a review of the STP was conducted by the Commonwealth Government Department of Health in 2015, with several reforms implemented to the program, together with a continued commitment of support.[5] With the ophthalmology workforce forecast to experience substantial undersupply by 2030 (−14.81%) and the recognised maldistribution of the ophthalmology workforce,[1] the review proposed a target of 15 STP funded training posts for the Royal Australian and New Zealand College of Ophthalmologists (RANZCO), with the expectation that seven of these posts be located in regional, rural or remote areas (MM2 to 7).[5] To support the development of these posts, and to ensure the success of these posts in influencing future rural practice intention amongst ophthalmology trainees, the aim of this study was to examine broadly the benefits and challenges associated with ophthalmology training delivered in regional, rural, remote and/or private STP posts across Australia.

What is already known on this subject:

- Ophthalmologists are maldistributed in Australia, with 84% practising in metropolitan areas
- Positive rural or remote training experiences are a strong predictor of future rural workforce intention
- The Specialist Training Program (STP) provides funding to facilitate medical specialists to undertake part of their training in a regional, rural, remote and/or private setting to help influence future workforce intention towards areas of need

What this paper adds:

- STP posts in regional, rural, remote and/or private settings offer benefits for trainees, supervisors and the broader community including rural immersion, unique learning opportunities, workforce support and renewal, and affordable ophthalmic care
- Challenges to training at STP posts include difficulties achieving work/life balance, unmet training expectations, lack of professional support, financial and administrative burden, and lack of regional, rural and remote training opportunities
- Training delivered at STP posts need to be improved, expanded and better publicised to optimise future rural ophthalmic workforce development

2 | METHODS

2.1 | Study design

This study employed a cross-sectional qualitative study design involving semi-structured in-depth interviews. The Tasmania Health and Medical Human Research Ethics

TABLE 1 Specialist Training Program ophthalmology posts across Australia

Training network	STP post	Setting		Length of rotation
		Regional, rural or remote	Private	
South Australia	Alice Springs	Yes	No	6 months
Victoria	Launceston	Yes	Yes	3 months
Western Australia	Hobart	Yes	Yes	6 months
	Bunbury	Yes	Yes	3 months
	Perth	Yes	Yes	[a]
Prince of Wales Hospital, New South Wales	Tamworth	Yes	Yes	3 months
Sydney Eye Hospital, New South Wales	Port Macquarie	Yes	Yes	3 months
	Chatswood	No	Yes	3 months
	Lismore	Yes	Yes	3 months
	Liverpool	No	No	3 months
	Gosford	No	Yes	3 months
	Westmead	No	Yes	3 months

aFlexible time period as this post is for fifth year trainees.

Committee (Project ID: 23059) and the RANZCO Human Research and Ethics Committee (Reference Number: 113.20) both provided ethical approval for the research.

2.2 | Specialist training program

At the time of this study, 12 of the 15 STP-funded training posts for ophthalmology were operational (Table 1). Each post is a nominated training position, affiliated with one of the seven vocational training networks for ophthalmology in Australia (Table 1). The Director of Training in each training network is responsible for facilitating ophthalmology training for trainees in all accredited training posts within the network, including STP posts, and monitoring trainee progress throughout the vocational training program.[6] RANZCO has developed strict accreditation guidelines for each training post to ensure the provision of quality training experiences for trainees throughout their vocational program.[7] Accreditation standards require all training posts, including STP posts, to provide an appropriate clinical and surgical workload, together with physical facilities. All posts must also be supported by a minimum of three clinical tutors, which includes a designated term supervisor. Together, clinical tutors and the designated term supervisor are responsible for providing education, training and work-based assessment of trainees.[7]

2.3 | Participants

Eligible participants for this study were: (a) ophthalmology trainees who had undertaken a training position at a STP post; (b) RANZCO Fellows who were either term supervisors or clinical tutors at a STP post and (c) other stakeholders, which included Directors of Training, administration and support staff from STP posts, RANZCO, Commonwealth Government Department of Health and State Health Service employees who support the delivery of the STP and RANZCO Fellows practising in regional, rural or remote (MM2 to 7) and/or private settings not engaged in the STP.

2.4 | Data collection

RANZCO provided contact details for potential participants, to which an email invitation was sent by a member of the research team (BJ). All respondents to this email were subsequently contacted to arrange an interview. All interviews were conducted by Zoom or telephone at a time convenient for the participant. Interviews were completed between October 2020 and February 2021 and ranged from 15 to 67 min in length (average time 38 min). Interviews were semi-structured in nature, with guiding questions used to elicit key information on the benefits and challenges of ophthalmology training provided at STP posts relevant to the participant's role. For those RANZCO Fellows not engaged in the STP, questions related to their knowledge of the STP, and the perceived benefits and challenges of providing training in their setting. All interviews were audio recorded and immediately transcribed verbatim. Interview transcripts were provided to participants to check for accuracy and completeness, with amendments made by participants where necessary.

2.5 | Data analysis

All amended transcripts were imported into NVivo (version 12.0) for analysis. Individual transcripts were reviewed, with codes created by a member of the research team who had completed the interviews (BJ). An inductive process was used to initially code the interview transcripts, with the researcher reading each transcript and identifying codes as they emerged from the text.[8] The codes were hierarchically organised into broader themes and sub-themes as the coding progressed. A second researcher (PA) independently coded the transcripts using a combination of deductive coding, using the codes identified by the first researcher, and inductive coding, where new codes were created for themes not identified in the initial coding. The researchers then met to discuss their coding, identify the main themes, the sub-themes and the relationships between themes. There were no instances of conflicting coding of text but there were some instances of additional coding of text to other sub-themes. Two members of the research team (BJ, PA) then met to review all themes identified and progressively abstract them into meta-themes. Verbatim quotations were used to exemplify participant views where appropriate.

3 | RESULTS

A total of 32 participants (20 males and 12 females) completed an interview as part of this study (Table 2). Collectively, interview data represented training experiences delivered at eight of the 12 operational STP posts, and all five training networks with a STP training post (Table 1).

All 32 interviewees expressed a belief in the value of ophthalmology training experiences provided by STP posts. However, interviewees also identified challenges in the delivery of positive training experiences at STP posts.

3.1 | Benefits

Ophthalmology training at STP posts was reported to be beneficial by all participant groups, with four meta-themes emerging from the data including rural exposure, value add, workforce support, and improved regional, rural and remote service delivery. The themes within each meta-theme are shown in Table 3 along with illustrative quotations.

3.1.1 | Rural exposure

Trainees and supervisors commented on the opportunity for rural immersion, being able to experience a country lifestyle, including a short commute to work, the 'community' feel of the practice, and the relaxed and friendly nature of patients. Trainees also described how regional, rural and remote STP posts demonstrated the capacity for comprehensive general ophthalmology which differed from the subspecialisation encountered in tertiary hospital training settings.

TABLE 2 Study participants

Participant group	Sample size (*n*)	Respondents (*n*) (%)
Ophthalmology Trainees	171	8 (4.7)
STP Supervisors and Clinical Tutors	54	16 (29.6)
Other Stakeholders	101	8 (7.9)

3.1.2 | Value add

Training at STP posts reportedly provided value add for both trainees and supervising ophthalmologists. For trainees, this included access to unique learning opportunities not readily available in tertiary training settings such as service provision to specific populations including paediatrics and the Indigenous, as well as exposure to injection clinics, lasers and refractive surgery. Trainees in private settings also described the development of business acumen, which was seen as highly advantageous for workforce preparation. STP posts were also described as hands-on training opportunities, given the ability to undertake a greater number of surgeries than in tertiary training settings given the lack of competing consultants and trainees. Supervisors also described the value add to their own clinical practice through reciprocal learning, with trainees helping them to keep abreast of current medical and surgical management trends. Supervisors also appreciated the opportunity to repay the training system that had helped develop their own clinical careers.

3.1.3 | Workforce support

The STP posts were reported to help facilitate greater work/life balance for supervisors and other ophthalmologists working at the STP post given trainees enabled the opportunity to take recreational leave and reduce hours of work and on-call responsibilities. Supervisors also recognised the role of STP posts in facilitating recruitment, with reports of trainees returning to post locations to practise once fully qualified.

TABLE 3 Benefits of ophthalmology training at Specialist Training Program posts

Meta-theme	Theme	Illustrative quote
Rural Experience	Rural Lifestyle	*There were quite a few pluses ... from a patient point of view, it was a bit more relaxed, although we were seeing a lot more. The variety of stuff and then the lack of subspecialties, so you were managing a bit more before sending up. You know, being able to have weekends there was amazing ... we had a few stays there in lots of different spots ... it was good from that point of view. (Trainee #2)* *I always sit down at the start with them [trainees] and talk about the things they should get out of the term. So the things they should get out are the experience, but I also talk about that they should get the experience of having the rural lifestyle and see what the opportunities are for them, and I also tell them they should make sure they enjoy themselves when they are here, not just doing the ophthalmology thing ... (Supervisor #3)*
	Comprehensive Ophthalmology	*... we are talking about a lifetime experience for junior trainees to understand rural/remote and to be able to manage those patients for the whole of their career, whether they choose to or not, they are least understand the issues. (Supervisor #5)* *... they were given exposure to a very busy general practice and in this day and age, everything is so subspecialised they just do not get that, so it was a really great opportunity from seeing everything, all at once, seeing how one person can do all the different specialties... (Other Stakeholder #6)* *It was very, very different ... everyone was kind of more of a general ophthalmologist and had skills in ... the various subspecialties where in most metropolitan cities, you'll find that most people are subspecialists and not generalists ... that I thought was amazing and really, really inspiring. (Trainee #5)*
Value Add	Surgical Volume	*... where I'm at the moment, there's lots of Fellows so they often will do a lot of the surgery ... and you do not get to do much of it for yourself. Whereas in these smaller places, because there is nobody else competing for the experience and exposure, you get a lot more experience. So definitely in [location] and [location], I got to do things that I would not be able to in a big hospital because ... other people there [are] nabbing the opportunities. (Trainee #3)*
	Unique Learning Opportunities	*It was very, very illuminating if you like, because it was my first time in a private practice... basically, as part of our training in a public hospital, you never have to worry about Medicare item numbers, you never have to really worry about billing, which is not a good thing to be honest because ... when you finish and you leave the department, you go off and you are thrown in the deep end and you have to figure it all out. So at least [location] opened my eyes up to that a little bit ... from an experience point of view, it was excellent. (Supervisor #15)* *It was amazing to be able to get exposed to retractive surgery, because there was a clinic consultation and a theatre list once a month and you would not normally get that at all in metropolitan [location]. Zero. So that was really, really good to get exposed to that. So there's certainly things that you would get exposed to in a rural setting, such as this, that you would not necessarily get exposed to in a metropolitan setting. (Trainee #5)*
	Opportunity to Give Back	*We have a long tradition of teaching and mentoring in ophthalmology, and I certainly had that in my training program in [location] ... we got a lot of input from supervisors, so I think I had some really good models there for ... good ways of teaching and supervising and so I was very happy to sort of then implement what I'd learned ... so when I got the chance, I just seized it. (Supervisor #2)*
	Maintaining Currency	*Well, they keep us on our toes because they are usually sitting for their exams and their knowledge is quite high and so they test us and keep us up to date a bit ... (Supervisor #3)* *When we have difficult patients, they are much better at stuff like that. If we have rare and unusual cases come in that we do not see very often, the registrars are much better at that kind of stuff. There is definite both clinical value, real clinical value and just interest value as well, so it's definitely of benefit... (Supervisor #7)*

(Continues)

TABLE 3 (Continued)

Meta-theme	Theme	Illustrative quote
Workforce Support	Work/Life Balance	*Certainly for us, one of the useful sort of perks, if you like, of having a registrar is that they are the first on-call. And so they go into the hospital and see emergency cases and if they need some advice, they give us a call and if a patient needs to go to the theatre, they let us know and we meet them and do the theatre case with them. So if they were not available in that capacity, we'd certainly, our quality of life would be a fair bit worse. We'd be in and out of the hospital after hours much more frequently. (Supervisor #14)*
	Recruitment	*We have had our very first trainee who came to us about five years ago … [they have] graduated and completed [their] fellowship training and [they] now actually visit us a couple of days a week as a consultant, which is really nice. So that's that kind of coming full circle with training someone and then having them as a colleague. (Supervisor #2)*
		The rotation does generate interest in working in regional areas. It helps in succession as the area keeps growing and as the more senior doctors consider reducing work. It is beneficial for both sides if we have already worked with each other. (Supervisor #10)
Improving Regional, Rural and Remote Service Delivery	Service Provision to Communities	*While they are training, they are also providing services in rural areas which provides benefits for those communities as well. (Other Stakeholder #4)*

3.1.4 | Improved regional, rural and remote service delivery

Finally, STP posts were acknowledged to facilitate community access to affordable specialist medical care which would otherwise be unavailable given the paucity of public ophthalmology services in regional, rural and remote areas.

3.2 | Challenges

Trainees, supervisors and other stakeholders equally described a range of challenges with ophthalmology training at STP posts, with five meta-themes emerging from the data including work/life balance, training expectations, respect and support, finance and administration, and regional, rural and remote training opportunities. The themes within each meta-theme are shown in Table 4 along with illustrative quotations.

3.2.1 | Work/life balance

Themes relating to work/life balance were expressed by both trainees and supervisors. Trainees felt that some STP posts had excessive in hours and after-hours workloads, resulting in challenges balancing training demands, study and recreation. In hours, trainees described having too many patients booked into their clinics, leaving them feeling overworked and to a certain extent, exploited. The issue of untenable workload was exacerbated in some cases by the absence of clinical support staff to assist the trainees undertake their role, despite being available to other ophthalmologists within the practice. After hours, some trainees described being rostered continuously on-call, leaving little opportunity to relax, recreate and explore the post location. Trainees also described situations of difficulty obtaining study and recreational leave when needed. These situations were specifically linked with private practice settings where trainees were engrained as a pivotal part of the workforce.

With many trainees in the formative years of their life, partners and families were an integral consideration in achieving work/life balance whilst undertaking the placement at an STP post. The lack of advanced notification of training schedules therefore posed challenges for trainees who needed to consider arrangements for both partners and children. Although trainees were able to submit requests for specific posts, trainees reported opportunities to facilitate family friendly training arrangements were not always acted upon by training networks. This had a profound impact for female trainees who were essentially rendered single mothers at their post, having to juggle care commitments for young children whilst attending to the demands of the post, including after-hours responsibilities. Fortunately for some trainees, advanced notice was provided, which was reported to be highly advantageous in not only supporting the logistical planning process but also in allowing for mental preparation regarding future rotations. With the expectation of some posts to rotate for

TABLE 4 Challenges of ophthalmology training delivered at Specialist Training Program posts

Meta-theme	Theme	Illustrative quote
Work/Life Balance	In Hours Workload	*... people find it stressful the volume of people that they're seeing. That's quite different form a public clinic. Like in a public clinic, they allocate I think like ten places per session for a registrar, eight to ten would be like a big number for a registrar, so when you go to these places, for example, yesterday I saw twenty one patients in two thirds of an afternoon. (Trainee #1)*
		Well, it's work, and therefore, as I said, it slows me down, it means I can't do my paperwork at lunchtime or make phone calls as I normally would because I'm talking to the registrar or teaching the registrar, so one day a week is enough for me. (Supervisor #8)
	After Hours Workload	*... [location] you are on-call twelve out of fourteen days and it just means you can't go anywhere or do anything. (Trainee #1)*
	Post Allocation	*... I actually asked for a [location] term... because my [partner] was in [location] and I got told no. I don't know why. And so I said, 'Well if you aren't going to give me [location], then give me [location] because I can't be in [location] by myself with no [partner] or no family.' (Trainee #3)*
		And I guess another thing that would be ideal is if we actually found out in advance where we're going ... I know once we were told maybe mid-January where we're going, so to start in two weeks time, which is really difficult. I mean, it's not as bad for people that don't have families with young children, but if you do, it is very hard to plan, and if you have your other half who like mine is a doctor as well, it's very hard to try and manage our rosters together or do swaps if we're not giving much notification. If we were given ... our terms a couple of years in advance, that would help. (Trainee #3)
	Leave	*I know I had an exam coming up and it was in like the second week of term, and so I emailed like, maybe the week before I started, and asked if I could have that week off. And I was told no, you should have notified us like ... two months ago because we need to cut clinics ... and so the leave was denied except for like I think it was one or two days before and so I didn't get the whole week off that I actually wanted, whereas in a bigger hospital it's more flexible because there are more people to swap and change with. (Trainee #3)*
		We have had different times where we have had a registrar for three months, for example, and they'll take their whole four weeks of annual leave, and they might have a week of study leave, or some parental leave because they have had a baby, or whatever, which is all fine, but you know, conceivably, we have certainly had registrars in the past where maybe two thirds of their term they weren't actually here. (Supervisor #12)
Training Expectations	Learning Opportunities	*I mean the real main point of difference is that all the complex stuff gets farmed out to ... the city clinics ... and that's where ... you actually get to see the stuff that might appear in your exams ... and the chair, the people who organise the rotations here make it a point to not put someone who is sitting their exam in that post just before they are about to sit their exam ... they know that it's not the same kind of quality or diversity. (Trainee #6)*
	Supervision	*My friends who have done some of the posts often feel under-supported in that there are consultants there, but they are also running their private practice at the same time, and so everyone just wants you to get on with the work. (Trainee #1)*
		Some registrars I think feel like they go to some of the regional places and they don't have as much support, because they might be on call all the time and perhaps the doctors aren't as accessible and there's less supervision. (Supervisor #2)
	Teaching	*I guess in a sense passively, the little tutorials, the impromptu ones, like the fellow's like, 'Hi, let's go to lunch and chat about this', that's not going to happen. You're going to be excluded from those. And that's the sort of stuff, I mean, now obviously all the official tutorials are on zoom, and I'm sure they'll continue, but those little impromptu ones aren't going to be. (Trainee #4)*
		I guess, if there was a practical barrier it's the fact that I spend so much time in admin that I don't get a lot of time to sit down and do didactic teaching, but we tend to do on the spot teaching as subjects and things come up. (Supervisor #5)

(Continues)

TABLE 4 (Continued)

Meta-theme	Theme	Illustrative quote
Respect and Support	Power Dynamic	*They kind of say, 'Oh, you know, you can speak to us about anything', but you don't really feel like you can. How do you go to your boss and say, 'I'm being exploited here?' They would take great offence to that I'm sure... (Trainee #6)*
	Network Support	*The only other thing I would say is that if we have an issue with the [hospital], we often don't necessarily feel listened to. So as a sort of a small peripheral training provider, obviously the interests of the mothership always come first, and requests and complaints and different things are often not necessarily given due attention. (Supervisor #4)*
	Trainee Selection	*Again, we try to ensure that we get experienced people because we have very busy lists and I think they get the most out of the operating because they can just handle more volume with less time. (Supervisor #2)* *I think there's still not from the college ... a sufficient ... feedback circle about trainees, I mean we just get a trainee ... I think if somebody's literally under remediation we'll be told, but ... we're not told whether they're highflyers, middle, struggling but getting by under remediation, but they might be if they don't have another good term. It's not a matter of scoring them, it's understanding them and knowing where they are. (Supervisor #1)*
	Performance Management	*It is stressful in that if there is an issue, then you've got deal with it, and then you've got to have a meeting with the person and that's really stressful on both sides. You know that it is not supposed to be a confrontation, but it basically is a confrontation saying, 'you're not good enough'. (Supervisor #8)*
Finance and Administration	Post Remuneration	*... so from a financial point of view, there was a significant pay cut that we actually took to ... get our tails there. I worked out I was getting paid about 38 to 42% less when I was in [location] compared to [location]. I think every registrar that's been through there has sort of outlined this as something that we should probably look at. Not in terms of that you know, we want every single cent, but it's just, when you grow up in [location] and you're working in [location] ... your lifestyles and expenditure are basically centred around what you're earning at that particular time, and then to suddenly sort of take a huge pay cut like that, it's actually very challenging because you have to make significant changes to make it actually work. (Trainee #5)*
	Financial Impact of Hosting a Trainee	*It can be quite a cost burden on practices, even with the STP funding taking on a registrar, because if the patient is being bulk billed, it doesn't actually cover the costs of the service always ... a lot of it is goodwill. I mean it seems like they're getting free workforce, but the reality is it does actually cost a lot to deliver services. There's a lot of staffing involved with ophthalmology, a lot of equipment and facility. (Supervisor #9)* *... the general STP funding ... it doesn't really approach fully covering the position, and that's a barrier because if it's not cost neutral, it can be hard to get jurisdictions to take on an STP position, even to accept the money because they'll have to pay something in addition ... they have to find that money somewhere. They don't have an establishment for it or budget for it, then that's a barrier. (Supervisor #9)*
	Funding Insecurity	*The only issue with STP is that sometimes the funding is removed and ... then we're left with a service that we have built up around that registrar that we then need to fund ourselves, so I guess that is always a risk when we agree to take on a STP position is to be aware that we'll set up a whole service around that position and then if it's not funded, we actually can't just stop. (Other Stakeholder #2)*
	Administrative Burden	*I get a message from the college saying right it's time to do the paperwork and I liaise with the lady at the hospital, and then she usually does the forms and then gets them back to the college. But this time, she said that we needed to fill out sections to do with I think how precisely how the funds were being used, and what objectives there were and what goals and how they were being met and all this justification stuff ... it's just the last thing you want to do as a clinician. (Supervisor #2)* *... the admin side of it was tough ... it took like eight weeks or three months, sometimes for my overtime to come through, so it was really hard to track ... and then you'd have to put in your forms to get reclaims for travel back and forth so ... there was a huge administration burden from doing their rotation. (Trainee #2)*

TABLE 4 (Continued)

Meta-theme	Theme	Illustrative quote
	Reporting	*I include our finance department, but sometimes maybe I forget, or they change and I just wonder whether it would be better to have both lines in admin. Generally admin people don't, who are writing reports about maybe the clinical aspects of the program, aren't necessarily the ones that are sending the invoices. So it might be a bit [inaudible]. Probably the only issue that's come up. (Other Stakeholder #2)*
	Continuity in Business Relationships	*And there's also been a lot of turnover of staff in the college, and they're all lovely, but sometimes the new person that's coming in isn't quite sure what the other person's, where they're up to or what's happened. So whether that's been a bit of an issue as well. (Other Stakeholder #2)*
Regional, Rural and Remote Training Opportunities	Access to Regional, Rural and Remote Training Experiences	*... I know that the AMC has pushed very hard for saying that all training colleges should be responsible for making sure people get proper rural/remote experience. And I think in the past, a fair proportion of people have managed to not really have to do that much. You know, if you're on the [location] training program, then the rural placement is [location] and slightly ironically I suppose, a lot of [location] was labelled as rural, when it's nice, but it's not quite in the same category. So there are some anomalies in the system there too. (Supervisor #5)* *I would be very happy to have at least one or two regional terms next year, and I just don't have them. (Trainee #7)* *I think it would be a really good recommendation to say every trainee should have access to remote experience and this could be by ... requiring every network to make sure they have rural and remote posts set up and funded ... (Supervisor #9)*
	STP Literacy	*I don't think I have a complete understanding of how it all works, like it's quite complex, and so one of the take home messages for you from talking to me is it's all just a bit complicated and mysterious and somehow it just kind of works and we have a registrar and that's sort of enough for me because I'm so busy with everything else. (Supervisor #2)* *You need a team of experts that know all this stuff and how to set [a post] up rather than everyone reinventing the wheel ... there are so many rules ... you need those experts that know what's going on that kind of go, look here's a bit of a checklist, if you don't have these sorts of things it's going to be difficult, start sorting this out, then consider this, then consider this and like just have a bit of a play book ... (Other Stakeholder #6)*

as long as 6 months, trainees highlighted the importance of being able to suitably accommodate their families, including pets, when relocating. Some trainees reported STP posts did not provide suitable accommodation, lacking both cleanliness and safety that would adequately accommodate a trainee and their family. These situations resulted in unforeseen additional out of pocket costs, with trainees forced to source alternative accommodation at their own expense.

While trainees more frequently commented on challenges achieving work/life balance at STP posts, supervisors also acknowledged difficulties managing the additional demands of supervision on top of their normal work duties. This was specifically related to the need to commit substantial time and attention to the trainee to ensure quality learning. Supervisors emphasised that reviewing each patient after the trainee added to their own service pressures by slowing down their day-to-day work. Supervisors hence described the importance of sharing the supervisory responsibilities across several ophthalmologists associated with the post to minimise workload stress. There was unanimous agreement amongst supervisors that time was also a challenge when supervising a trainee performing surgery given that they took longer to complete operations and hence slowed down surgical lists. Although some supervisors felt that private theatres at STP posts were more efficient than public hospital settings, there was concern that in areas of workforce shortage, decreasing the number of surgeries completed was not ideal and hence added to poor work/life balance.

3.2.2 | Training expectations

Training expectations emerged from a collection of themes expressed predominantly by trainees relating to learning opportunities, supervision and teaching. Firstly, trainees expressed disappointment that some STP posts failed to provide a breadth and depth of learning opportunities given the limited pathological complexity of clients. In predominantly private settings, trainees also described their time being directed to conduct pre- or post-operative clinics, with a broader simplicity of clientele and limited exposure to subspecialty clinics and subspecialists. Some

described a lack of opportunities to undertake a range of surgical procedures, resulting in trainees feeling like their labour was being exploited for the benefit of the post without adequate consideration of the learning needs they had as a trainee on a surgical training program. Trainees were concerned that STP posts were inadequate preparation for those in the advanced stages of their training who were soon to undertake the RANZCO Advanced Clinical Examination (RACE).

Some trainees also described how their expectations for supervision were also not met at STP posts. Whilst some trainees reported that supervisors reviewed each patient they saw and provided direct feedback and learning support, others described supervisors implementing a 'call me if you need me' approach. It was under these latter conditions that trainees perceived supervisors were failing to dedicate sufficient time to their learning. This was a particular issue for STP posts supported by few ophthalmologists and locum ophthalmologists. Trainees also highlighted that they felt like they were missing out on teaching when at STP posts, especially the subspecialty teaching that often occurs in tertiary settings. Although supervisors did indicate they encouraged the virtual attendance of education sessions run by the parent training network, they also acknowledged there were situations where clinics clashed, and trainees were unable to attend. Several supervisors also commented that they would like to provide more structured teaching to trainees but felt service pressures prevented them finding the time to research and develop teaching materials. Some supervisors also commented on the imbalance between the effort required and the small number of trainees at each post that would benefit. This has led to the adoption of a more 'ad hoc' approach to teaching, where supervisors outlined topics are discussed as they arise.

3.2.3 | Respect and support

Themes relating to respect and support emerged from both trainee and supervisor interviews. For trainees, several expressed concern that they had wanted to raise concerns regarding workload and supervision at an STP post, but effectively felt silenced by a power dynamic, afraid for their future progress throughout the training program if they spoke out against their supervisors who were responsible for assessing their performance. Further, trainees also outlined that Directors of Training had to maintain collegial relationships, for both personal and professional reasons, resulting in an inability to advocate on behalf of trainees in situations of conflict. Trainees also stated that while the Directors of Training were ultimately responsible for ensuring the quality of the training experience provided, they often lacked awareness of how STP posts were operating, together with post accreditation standards. This resulted in trainees facing varying expectations for performance during STP rotations without adequate personal or professional support.

Supervisors also reported a lack of support from training networks, particularly when seeking practical assistance to help post implementation. Further, they felt challenged by the inability to provide input into trainee selection for their post. Given the distance to tertiary referral centres for some rural posts, and the independent way trainees were generally expected to work at STP posts, supervisors outlined the need for appropriately skilled trainees to be allocated STP training positions. While supervisors acknowledged that all training posts were accredited for the appropriate trainee level, they felt that training networks sometimes took this as a 'suggestion' rather than an absolute requirement. Supervisors described the lack of transparency around the past performance of trainees who are chosen to undertake STP rotations as particularly challenging. Whilst they acknowledged that the standard of trainees was typically very high, there were occasions where trainees underperformed, and providing negative feedback was required. Where supervisors were concerned was the lack of clarity around trainees who had been struggling through several posts and who needed to be adequately prepared for and supported. Longitudinal information on trainee performance was therefore considered important for supervisors at STP posts to prepare for incoming trainees. Further, supervisors seemed acutely aware of the fine line when providing constructive feedback to trainees and outlined the critical importance of addressing issues as they arose. With the potential for performance management to be misconstrued as 'bullying', supervisors shared their unanimous desire to continue undertaking professional development to ensure they approached trainee assessment with accuracy and diplomacy.

3.2.4 | Finance and administration

Finance and administration were reported challenges for all participant groups. Trainees reported monetary loss when undertaking an STP post in circumstances where they were required to cover relocation expenses and pay for accommodation when lodgings provided were deemed unsuitable. Further, trainees were remunerated up to 40% less at some STP posts than in tertiary training settings given the variation in award rates across states. Supervisors in private settings also described the growing cost burden of providing trainee salaries and covering other costs related to equipment, infrastructure and

support staff. Further, posts in rural and remote settings revealed the inadequacy of the rural loading component in meeting the additional costs of outreach services. Supervisors and other stakeholders also raised concerns around funding insecurity and business relationships. Specifically, there was concern that once services were set up, they could not be decommissioned in the event of funding being removed.

Along with fiscal concerns, all participant groups also reported administrative burden associated with the STP. This was particularly evident for supervisors and other stakeholders who were responsible for completing trainee assessments and financial reporting. As clinicians, supervisors highlighted that the administrative components acted to disincentivise their involvement in STP. This related mainly to financial reporting, where increasing requirements to justify expenses were seen as time consuming and challenging. Positively, supervisors and other stakeholders reported constructive engagement with RANZCO to obtain support to complete the assessment and reporting processes. However, other stakeholders highlighted the lack of continuity in the person responsible for providing support at RANZCO was an ongoing challenge in navigating STP and needed to be addressed to streamline processes.

3.2.5 | Regional, rural and remote training opportunities

All participant groups acknowledged the importance of rural training yet highlighted that regional, rural and remote training posts were not available across all training networks. This was perceived to be disadvantageous for trainees who expressed an interest in future rural or remote practice, but who were unable to access rural and remote training experiences. Further, trainees also described being unable to self-select training positions at STP posts of interest. Supervisors and ophthalmologists also discussed differences in ophthalmology practice with increasing levels of remoteness. With many trainees only ever having completed posts in metropolitan and regional (MM2) areas, they expressed concern that current trainees are finishing their training with little understanding of the reality of ophthalmic practice in smaller population centres (MM3-7).

The provision of rural training was also compromised by the systemic lack of understanding across all participant groups regarding the STP, its aims, standards and procedures. Many trainees interviewed were unaware that the post they had completed was funded through the STP. Further, supervisors made it clear that whilst they could see the STP initiative working, they were unsure about the specifics of program implementation. This lack of understanding permeated all the way up the training network hierarchy, where a Director of Training expressed unfamiliarity around accreditation and funding requirements. All participant groups perceived that an 'STP expert' within RANZCO was a necessary resource to help navigate the requirements and processes and help provide support to all involved in STP. This was particularly noted amongst ophthalmologists not yet engaged in the STP but who indicated a desire to be involved in the future.

4 | DISCUSSION

The Australian Government Department of Health has made a substantial financial commitment to the STP to build the future medical specialist workforce in areas of need (MM2-7). The benefits reported in this study support this strategic investment, with evidence of workforce support and renewal at STP posts, thus increasing ophthalmology services in underserved areas. Further, the regional, rural, remote and/or private settings made available to trainees also facilitated rural connection, which has been identified as precursory to future rural workforce recruitment for medical specialists.[9] STP posts in private settings also allowed the development of business acumen, something which has been highlighted as missing in other ophthalmology training programs worldwide[10–12] and therefore supports the value add of training experiences outside of traditional tertiary hospital settings in Australia.

Although training opportunities for ophthalmology trainees in regional, rural, remote and/or private settings present with benefits, this study has also demonstrated there are several challenges. Firstly, this study identified excessive workloads as potentially impacting on positive training experiences at STP posts. It may be that these high workloads reflect the clinical demand in the regions supported by STP posts, which typically have fewer ophthalmologists available per capita.[1] However, other international studies of ophthalmology trainees have similarly reported high workloads,[13,14] suggesting this may be a profession specific issue and not reflective of STP posts specifically. Further, it may be that there is overuse of trainee labour to enable greater work/life balance amongst ophthalmologists at STP posts. With excessive workloads linked to burnout,[15] efforts to cap workloads for trainees may therefore be needed, especially to allow for engagement with the community which is essential for facilitating rural connection and subsequent rural recruitment.[9] Ironically, efforts to cap trainee workloads may inadvertently increase the likelihood of practising ophthalmologists leaving STP posts given that in hours

workload and after-hours workload are key factors impacting retention.[9,16] As such, the workload contribution made by trainees in STP posts may well be supporting the retention of ophthalmologists in current areas of workforce shortage.

The workload demands of regional, rural, remote and/or private settings may also explain the variable supervision provided to trainees at STP posts, despite the strict guidelines relating to the number of supervisors and clinical tutors at STP posts to ensure adequate supervision is available.[7] However, research has highlighted that ophthalmology is one of the leading medical specialties where trainees regularly provide care without adequate supervision, regardless of training year.[17] With this study illustrating poor supervision occurring predominantly in private settings, an important consideration is that trainees are working within a business, with financial considerations to manage and a reputation to uphold. Given patient satisfaction has found to be correlated with time spent waiting to be seen for their ophthalmology appointment[18] and the ophthalmologists' need to sustain their practice financially, it is understandable that supervising ophthalmologists would prioritise their private patients. Ensuring that supervisors are adequately financially compensated for their time directly supervising trainees may provide greater incentive to provide trainees with the attention they need and deserve within private settings specifically.

Even if workload expectations and supervision are addressed, some STP post experiences, particularly those in private settings, did not appear to meet training expectations and fostered trainee belief that they were there just to fill a service gap. This largely resulted from the preferential use of the trainee's time to conduct pre- or post-operative clinics, the broader simplicity of conditions seen in regional, rural, remote and/or private posts, and the subsequent limited exposure to subspecialty clinics and subspecialists. However, the core principle of STP is to provide training experiences that are *outside* of the tertiary setting, where most trainees will end up practising once fellowship is obtained. Unfortunately, most trainees interviewed as part of this study were unaware that the post they had completed was funded through the STP. Had trainees understood that the post was funded through the STP, whose core objective is to provide learning experiences outside of tertiary centres, then expectations and perceptions of the quality and breadth of the training opportunity delivered may have been different. Helping trainees to fully understand the purpose and motivation of training positions at STP posts, together with contextualising the learning they are likely to receive during these rotations within the broader five-year training scheme, may therefore help to reshape expectations and alleviate concerns.

With the potential for excessive workloads, poor supervision and unmet training expectations, it was concerning to hear from trainees that they did not have an impartial source of professional support whilst training at STP posts. This may in part result from the geographical disconnect between the STP post and the training network, which subsequently fosters professional isolation. Further, Directors of Training, while ultimately responsible for ensuring the quality of the training experience provided, lacked awareness around how STP posts were operating, together with post accreditation requirements and standards. This, combined with the importance of maintaining collegial relationships, resulted in an inability to advocate on behalf of trainees in situations of conflict. Given the literature suggests that at least half of ophthalmology trainees are subjected to both bullying and harassment during training rotations,[19] ensuring that trainees can access professional support independent of their supervisory team whilst at STP posts will be critical moving forward. Further, supervisors need adequate training and support to enable the timely and diplomatic delivery of constructive feedback to trainees.

Although many trainees expect to involve their partners and families in their training experience at STP posts, this study found adequately clean or safe accommodation was not always made available. This financially impacted some trainees who had to pay for alternative accommodation better suited to their personal circumstances. Ensuring health jurisdictions are therefore cognisant of the impact of clean, safe accommodation in contributing to a positive training experience for trainees will be paramount moving forward. Perhaps more importantly, advanced notice of training placements should become mandated across all networks to allow trainees, particularly those with children, more time to prepare logistically for STP rotations. Allowing trainees to indicate preferences for particular post locations prior to this advanced timetabling may further encourage family friendly arrangements for trainees at STP posts.

While an objective of the STP is to positively influence future workforce distribution towards areas of need, this study observed that not all training networks have access to regional, rural or remote training experiences where ophthalmology workforce shortages primarily occur. Further, this study found no alignment between trainees who expressed an interest in rural and remote training and participation in rural or remote STP posts. This issue has been previously raised by Mason,[3] with their review identifying no clear pathway for graduates interested in working in the type of settings supported by STP to enable them to plan to undertake placements. This inability to nurture those trainees who indicate an early desire to practise rurally once fellowship is obtained is of

considerable detriment to rural and remote communities who may benefit from their care in future years. RANZCO may need to consider how best to make available rural and remote training opportunities across all training networks and allow self-selection for trainees who preferentially seek rural training experiences.

Finally, this study observed that supervisors were not only unsure about STP implementation, but Directors of Training, who are responsible for overseeing training experiences, also expressed unfamiliarity around specific accreditation and funding requirements. If the direction is to set up more STP posts, then ensuring STP literacy, including an understanding of the aims, the accreditation standards, funding and reporting, will be critical. Finance was also a central issue for all stakeholders in this study, which reaffirms the findings from the Commonwealth Department of Health's review in 2015 of the increasing challenge of meeting cost pressures from allocated funds each year.[5] Unfortunately, whilst the review identified the need for increased salary costs and rural loading for STP posts, it was unable to deliver more than modest increases in line with the fiscal constraints at the time. The concern is that, at some point, the true financial impact of hosting a trainee will become cost prohibitive, potentially resulting in the loss of some current STP posts. Ensuring that posts are adequately renumerated to cover trainee salary costs, and that sufficient rural loading is provided, will be critical to ensuring sustainability of existing STP posts and the development of further regional, rural and remote training opportunities.

4.1 | Limitations

This study only examined the benefits and issues of motivated participants who self-selected to be interviewed. Therefore, these findings cannot claim to be representative of all stakeholders involved in STP posts across Australia. Further, it may be that those participants who have experienced issues with training at STP posts were more motivated to partake, in turn skewing the results negatively. The voluntary nature of participation meant that only small numbers of participants were included from some participant groups. Increased participation may have provided further insight into other challenges that were not identified as part of this research. Ensuring that all motivated participants were included, and that participant experiences were representative of the majority (75%) of operational STP posts and all five training networks with training positions at STP posts, helped to address this potential limitation of the research.

5 | CONCLUSION

The STP provides wide ranging benefits for medical specialist trainees, practising ophthalmologists and the broader community who stand to benefit from improved access to affordable ophthalmic care. With these training experiences a potential catalyst for future workforce development in areas of need, continued efforts to improve the quality of training experiences provided at STP posts, together with increasing the number of STP posts in regional, rural and remote areas, will auger well for more ophthalmologists practising in areas of need in the future.

AUTHOR CONTRIBUTIONS

BJ: conceptualization; formal analysis; investigation; methodology; project administration; writing – original draft; writing – review and editing. PA: conceptualization; formal analysis; methodology; writing – original draft; writing – review and editing. SK: conceptualization; methodology; validation; writing – review and editing. VBS: conceptualization; methodology; validation; writing – review and editing. TB: conceptualization; formal analysis; funding acquisition; methodology; supervision; writing – review and editing.

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CONFLICT OF INTEREST

S.K. and V.B.S. are employed by RANZCO. S.K. and V.B.S. were not involved in the data analysis or the interpretation of the results. The remaining authors do not have any relevant conflict of interest to declare.

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