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ORIGINAL RESEARCH

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Evaluation of the Allied Health Rural Generalist Program 2017-2019

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Abstract

Objective: To evaluate the development and implementation of the Allied Health Rural Generalist Program, a two-level online post-graduate education program, which includes Level 1, an entry-level non-award pathway program, and Level 2, a Graduate Diploma in Rural Generalist Practice.

Design: A convergent mixed methodology evaluation in two overlapping stages: a process evaluation on quality and reach, together with a mixed method case study evaluation on benefits, of the program.

Setting: Rural and remote Australia across ten sites and seven allied health professions: dietetics; occupational therapy; pharmacy; physiotherapy; podiatry; radiography; speech pathology.

Participants: Process evaluation included 91 participants enrolled in all or part of the Rural Generalist Program. Case study evaluation included 50 managers, supervisors and Rural Generalist Program participants from the ten study sites.

Interventions: The Allied Health Rural Generalist Program.

Main outcome measures: Process evaluation data were derived from enrolment data and education evaluation online surveys. Case study data were gathered via online surveys and semi-structured interviews. Quantitative and qualitative data were collected concurrently, analysed separately and then integrated to identify consistency, expansion or discordance across the data.

Results: The Rural Generalist Program was viewed as an effective education program that provided benefits for Rural Generalist Program participants, employing organisations and consumers. Key improvements recommended included increasing profession-specific and context-specific content, ensuring Rural Generalist Program alignment with clinical and project requirements, strengthening support mechanisms within employing organisations and ensuring benefits can be sustained in the long term.

Conclusion: The Rural Generalist Program offers a promising strategy for building a fit-for-purpose rural and remote allied health workforce.

KEYWORDS

Australia, post-graduate education, professional development for rural practitioners, rural and remote services, rural workforce development, teaching and learning

1 | INTRODUCTION

Allied health (AH) professionals in rural and remote Australia are in short supply, due to under-investment in AH services, and recruitment and retention challenges.[1-3] As a result, workforce shortages can adversely impact the delivery of sustainable, high-quality multi-professional care for rural and remote consumers.[4] Vacant positions are often filled by new graduates, many of whom have never lived or worked in a rural or remote location. Having little or no social connection to the service region,[5] the new graduate frequently undergoes a difficult period of adjustment[6] and high turnover is common. Under these circumstances, even when educational opportunities are provided, carryover of skills and knowledge and continuity of consumer care are a challenge.[7]

To address quality and continuity of health care in rural and remote locations, government-funded rural generalist medical pathway programs have been established. These medical pathway programs have demonstrated both workforce and economic benefits[8] in Australia[9] and internationally.[10] Until recently, there has been no mechanism to support allied health and nursing to transition into a rural career pathway.[11]

Since 2013, a multi-jurisdictional collaboration between government, health service providers, professional bodies and education providers has been developing the Allied Health Rural Generalist (AHRG) Pathway.[12,13] The aim of the pathway is to improve access to high-quality AH services in rural and remote areas by improving recruitment and retention, fostering a fit-for-purpose AH workforce, enabling innovative service development strategies and creating a career pathway in rural generalist practice within a practitioner's own profession. The AHRG Pathway includes the following: (a) an education program (eg the Rural Generalist Program [RGP]); (b) workforce policy and employment structures; and (c) rural generalist service models.[12]

The RGP is the purpose-built education component of the AHRG Pathway.[14] Between 2016 and 2019, James Cook University (JCU) and Queensland University of Technology (QUT) developed, implemented and evaluated the RGP, in collaboration with Queensland Health.[15] During the evaluation period, the focus for RGP development and evaluation was on 7 AH professions: dietetics; occupational therapy; pharmacy; physiotherapy; podiatry; radiography; and speech pathology, from all Australian states and territories.[16] Other health professions were also able to enrol in the RGP.

What is already known on this subject:

- High-quality allied health care for rural and remote populations requires a workforce with a well-developed set of generalist knowledge, skills and attributes
- Formal well-structured education programs have been shown to build a rural and remote health workforce that is fit-for-purpose

What this study adds:

- The Rural Generalist Program offers a promising model of education for building a fit-for-purpose rural and remote allied health workforce
- Value and benefits for rural and remote workforce development are achieved through integrating 3 elements: a formal education program, the Rural Generalist Program; a training-focused employment structure, the Allied Health Rural Generalist Pathway; and commitment from employers
- To ensure the future viability and sustainability of the Rural Generalist Program, it is important to cultivate a strong partnership and a shared commitment between the education provider, health services and other health sector stakeholders

The RGP is a 2-level post-graduate program designed for early career practitioners, through to proficient rural generalist practitioners, in their profession. Level 1 is a non-award pathway program that requires completion of 12 stand-alone modules, over 1 to 2 years. Each module is of 6-week duration with approximately 22-hour study per module. The 12 modules are equivalent to 2, semester-length (130 hours) Australian Qualification Framework (AQF) Level 8 subjects.[17] Completion of the Level 1 program enables advancement to Level 2 through recognition of prior learning. Level 2 is an AQF Level 8 Graduate Diploma in Rural Generalist Practice, which enables graduates to acquire advanced knowledge and skills for professional practice in a rural or remote environment. The Level 2 program consists of 8 subjects (130 hours per subject) to be completed part-time or full-time over

1-3 years. Central to the RGP is work-integrated learning, whereby educational activities are used to facilitate integration of academic learning with workplace learning.[18] In particular, assessment outputs of intrinsic value to the RGP participant and their employing organisation are used to enhance the RGP participant's readiness for rural and remote practice and their contribution to their employing organisation.

During the evaluation period, almost all RGP participants were incumbents of early career AHRG training positions that were being trialled by public health services in Queensland, Northern Territory, Western Australia and New South Wales. The training positions included the following: a formal development plan; dedicated development and supervision time (minimum 4 hours per week); a designated work-based profession-specific supervisor; participation in a local service development project; and participation in the RGP with most organisations fully funding RGP fees. The AHRG training positions were 2-year, fixed-term supernumerary positions in Queensland and the Northern Territory and existing workforce establishment in Western Australia and New South Wales. Hence, during the evaluation period, the RGP was nested within the AHRG Pathway and the context of the employing organisations, and their differing processes and funding arrangements, for implementation of designated training positions.

The aim of the RGP evaluation was to inform the health and education sector stakeholders of the longer-term viability and sustainability of the RGP. The objectives of the evaluation were to determine the (a) reach and quality of the RGP; (b) barriers and enablers to implementation of the RGP; (c) impact of the RGP; and (d) recommendations for the future of the RGP.

2 | METHODS

2.1 | Design

A convergent mixed methodology evaluation was conducted in 2 overlapping stages between May 2017 and December 2019.[19] Part A involved a process evaluation on the reach and quality of the program, and Part B involved a mixed method case study design, on the barriers, enablers and impact of the program, and reflected the broader context of the AHRG Pathway. Part A and Part B quantitative and qualitative data were collected concurrently, analysed separately and then integrated to identify consistency, expansion or discordance across the data. The process of integration served to add rigour and demonstrate trustworthiness.[20] Figure 1 provides the timeline for RGP development, implementation and evaluation.

2.2 | Part A

Part A data were derived from enrolment data and a Subject and Teaching Survey of Level 1 modules and Level 2 subjects. Health professionals enrolled in all or part (eg single modules only) of the RGP during the evaluation period were invited to participate in the survey.

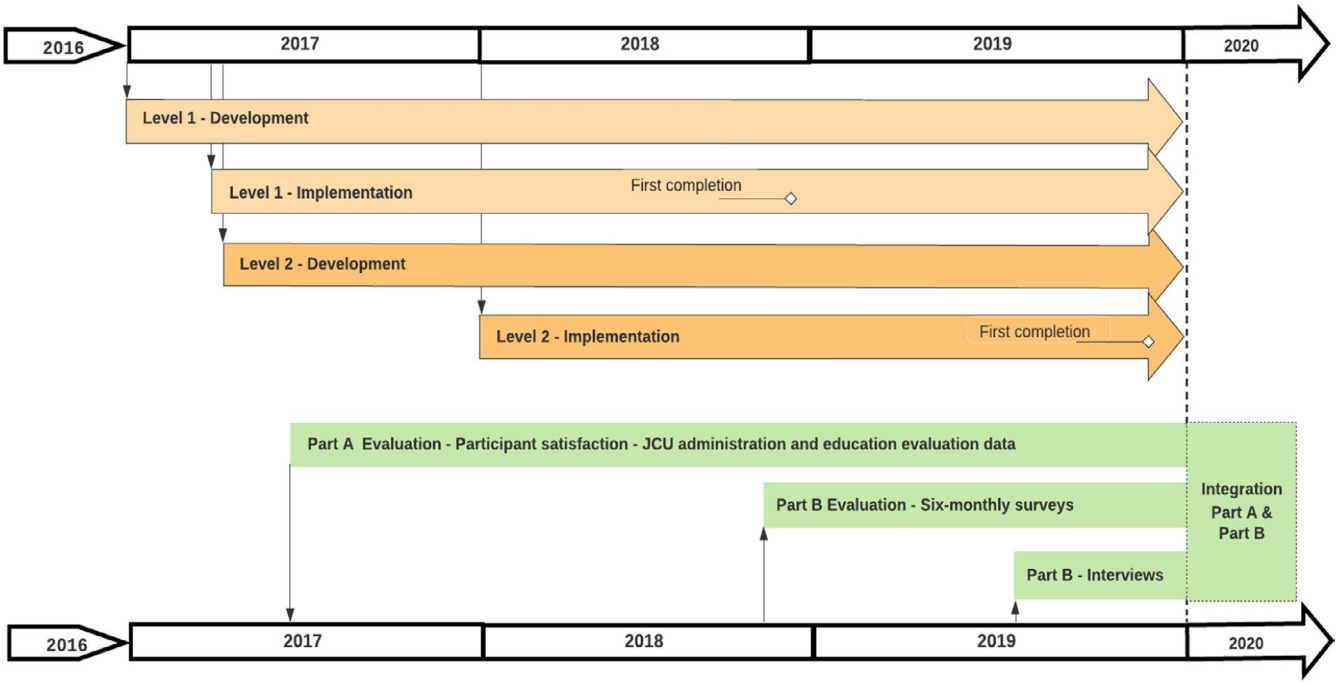

FIGURE 1 Timeline for development, implementation and evaluation of the RGP

2.2.1 | Reach and quality of the RGP—data collection and analysis

Data were collected for each Level 1 module using an online satisfaction survey administered via the JCU online learning management system (LMS). The survey questionnaire design was based on the existing JCU Subject and Teaching Survey and included demographic information and 16 statements related to satisfaction with teaching and learning. Response options ranged from 'strongly agree' to 'strongly disagree' on a 5-point Likert scale. Three open-ended questions on the best aspects, challenging aspects and areas for improvement of the modules were also included. The questionnaire was reviewed by the evaluation team to ensure evaluation aims were accurately addressed and questions were well-defined, comprehensible and presented in a consistent manner. Invitations to participate in the survey were sent via email with a link to the JCU LMS.

For Level 2, the JCU Subject and Teaching Survey was used and included: 11 questions, with response options ranging from 'strongly agree' to 'strongly disagree' on a 5-point Likert scale; and open-ended questions on the best aspects and potential areas for subject improvement. Personalised reminder emails were used to optimise response rates for both the Level 1 and Level 2 surveys.

Quantitative data were analysed descriptively using SPSS. Qualitative data were collated according to the survey questions and analysed thematically using NVivo.

2.3 | Part B

Part B involved a mixed-method case study design[21] using 6-month surveys and semi-structured interviews with questions formulated to address the aim and objectives of the evaluation. The RGP was treated as the case and study sites as the intervention. Study sites consisted of 10 employing organisations across Queensland, New South Wales, Western Australia, and the Northern Territory in Australia. All sites were public health services providing multidisciplinary services to rural and remote locations in inner regional (n = 1), outer regional (n = 5), remote (n = 1) and very remote (n = 3).[22] Study sites were purposively sampled to reflect the 7 AH professions, and the 4 jurisdiction health services included in the scope of the evaluation. Case study participants included RGP participants, their designated work-based supervisors and managers who provided operational or line management within the employing organisation.

2.3.1 | Impact of the RGP—6-month survey data collection and analysis

An online survey was designed and distributed between December 2018 and December 2019 to track changes over time. The survey questionnaire included the following: demographic information; 5 impact statements of the RGP with response options ranging from 'strongly agree' to 'strongly disagree', on a 5-point Likert scale; and open-ended comments after each statement. The survey questionnaire was reviewed using the same procedure as the Part A survey questionnaire. Participants, supervisors and managers were invited to complete the survey via email with a link to the JCU LMS, at 3 timepoints in the final 12 months of the evaluation period. Personalised reminder emails were used to optimise response rates. Quantitative data were analysed descriptively using SPSS. Qualitative data were sorted into categories using the impact statements as a framework for reporting.

2.3.2 | RGP barriers, enablers, impact and recommendations—interview data collection and analysis

Interviews were conducted with RGP participants, supervisors and managers about their perspectives on the RGP barriers and enablers, and impact and their recommendations for the future of the RGP. A predominately deductive approach was used with the interview guide focused on topics to address the aim of the evaluation (Appendix I). A complementary inductive approach was used through the use of broad open-ended interview questions that provided direction in the line of inquiry yet flexibility to explore and probe for other ideas. The interviews occurred via telephone or videoconference within the final 12 months of the evaluation period. Interviews were audio-recorded and transcribed verbatim. Data were collected and analysed by a researcher independent of the RGP development and implementation. Data were stored and managed using NVivo software. A systematic 6-phase approach described by Braun and Clarke[23] was used to analyse the interview data. Initial coding and theming of data occurred site-by-site by the independent researcher, followed by inter-coder agreement with a member of the evaluation team. Site-by-site themes were then analysed across sites, to identify consistent and unique themes. These themes were endorsed by a second independent researcher and confirmed with the evaluation team. This systematic approach served to ensure rigour and consistency in managing the large volume of data, yet the flexibility to deepen the analysis and enhance reliability of the findings.

To integrate findings for each of the objectives of the evaluation, findings from Part A and Part B were exported into a matrix and compared and contrasted for confirmation, discordance, and expansion and finally integration.[19] The process for integration was initially completed by 2 members of the evaluation team, then discussed by the whole team, then refined by the 2 members and verified by another 2 members of the evaluation team.

2.4 | Ethics approval

Ethical approval was granted by JCU Human Research Ethics Committee (HREC) H7025, Townsville Hospital and Health Service (THHS) HREC/17/QTHS/200 for sites in Western Australia, New South Wales and Queensland and Top End Health Service and Menzies HREC for the Northern Territory site HREC 2017-3008.

3 | RESULTS

Enrolments in both the Level 1 and Level 2 program were predominantly physiotherapists (32%; 36%) located in Queensland (68%; 56%) from outer regional locations (48%; 36%) with the lowest proportion of enrolments being radiographers (1%; 0%) and Victorians (1%; 1%) from major cities (4%). Level 1 single module enrolments were largely from major cities (46%). There were fewer enrolments in the Level 2 due to later availability of the program and the entry requirement of completion of Level 1, or 2 years practice experience. Level 1 and 2 enrolments in the RGP by profession, and by state and territory are displayed in Table 1. Level 1, Level 2 and single module enrolments by location according to the Australian Statistical Geographical Classification are displayed in Table 2.

TABLE 1 Enrolments in the RGP by profession, state and territory for 2017-2019 in Levels 1 and 2

	Level 1		Level 2	
Profession	**n = 91**	**%**	**n = 25**	**%**
Physiotherapist	29	32	9	36
Occupational Therapist	14	15	5	20
Podiatrist	11	12	5	20
Pharmacist	9	10	1	4
Speech Pathologist	8	9		
Dietitian	7	8	3	12
Social Work	5	6		
Psychologist	3	3	1	4
Diabetes Educator	2	2		
Radiographer	1	1		
Exercise Physiologist	1	1		
Registered nurse	1	1		
Prosthetist			1	4
State or Territory	**n = 91**	**%**	**n = 25**	**%**
Queensland	62	68	14	56
South Australia	9	10	4	16
Tasmania	5	5.5	4	16
New South Wales	5	5.5	2	8
Northern Territory	5	5.5		
Western Australia	4	4		
Victoria	1	1.5	1	4

3.1 | Part A results—reach and quality of the RGP

The Level 1 program included 25 modules, allowing for the selection of 6 out of 7 modules in the service delivery stream and 6 out of 18 in the clinical practice stream, including one from at least 3 of the 4 focus areas: 'ages and stages', 'managing health conditions', 'clinical skills' and 'service-specific clinical skills'.[23] Over the evaluation period, there were 91 enrolments in Level 1:65 in all 12 modules of the RGP with 19 completions, 31 continuing and 15 withdrawals; 26 single module enrolments with 25 completions and one withdrawal. Satisfaction with Level 1 modules was high (mean scores of 4 and range of 3-4), based on 120 responses to 412 surveys distributed. This 30% of response rate is consistent with the response rate for the JCU Subject and Teaching Survey (30% in 2017; 28% in 2018).

Open-ended responses indicated that the best aspects of Level 1 modules were the relevance and mix of clinical and service delivery modules, consolidation of skills, clear instructions, flexibility of online learning and quality feedback. Challenges included an underestimate of time by the university for completion of learning activities especially assessment tasks that required community engagement and consent, difficulty contacting some module coordinators and difficulty simultaneously managing RGP study commitments and high clinical workloads. Suggested improvements included fewer readings, greater variety of learning activities and assessments, and earlier module release to allow planning of study around clinical workload.

The Level 2 program included 40 subjects, with 2 core subjects and 38 elective subjects (inclusive of 6 QUT outbound cross-institutional enrolments) from which 6 subjects can be selected. Over the evaluation period, there were 25 enrolments in the Level 2, 5 of whom had completed the Level 1 and a further 2 had withdrawn from the Level 1 to start the Level 2. There were 2 completions and no withdrawals from the Level 2 during the evaluation period. Due to the small number of RGP participants in each subject, survey responses could not be reported.

3.2 | Part B—Results of 6-month surveys—RGP impact statements

Surveys were distributed in December 2018, July 2019 and December 2019. Seventy-three survey responses were received from 127 survey links distributed with an overall

TABLE 2 Enrolments in the RGP by residential location—Level 1; single modules and Level 2

	Level 1 program		Single modules		Level 2 program	
ASCG location	**n = 65**	**%**	**n = 26**	**%**	**n = 25**	**%**
Major cities	0	0	12	46	4	16
Inner regional	12	18	7	27	8	32
Outer regional	34	52	3	12	9	36
Remote	12	18	2	8	1	4
Very remote	7	11	2	8	3	12

TABLE 3 Six-month survey responses—RGP Impact statements

The RGP contributed to	December 18 Mean (range)	July 19 Mean (range)	December 19 Mean (range)
Rural generalist knowledge and skills	4 (2-5)	4 (3-5)	4 (4-5)
Service effectiveness	4 (2-5)	4 (2-5)	4 (3-5)
Service efficiency	4 (2-5)	5 (2-5)	4 (3-5)
Service accessibility	4 (2-5)	4 (2-5)	4 (3-5)
Project implementation	4 (2-5)	4 (1-5)	4 (3-5)

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree or disagree; 4 = Agree; 5 = Strongly agree.

response rate of 58%. Survey respondents came from all sites and included RGP participants (53%), supervisors (30%) and managers (17%). Survey responses are displayed in Table 3. For all 5 impact statements, the mean response was 'agree' (4/5), ranging from 1 (strongly disagree) to 5 (strongly agree) across the 3 timepoints with no notable change over time.

Respondents' comments were consistent with survey findings. With respect to the RGP education program, respondents felt there was a lack of relevance in some modules, insufficient feedback and engagement from some module coordinators, time-consuming assessment tasks and impractical assessments requiring consumer engagement and consent. With respect to the RGP education program, when nested in the AHRG training position, participants reported improvement of RGP participants' knowledge, skills and time management, improvement in the knowledge and skills of the AH team within the employing organisation, especially if the team was supportive of the RGP participant and open to change. Improvements in service effectiveness, efficiency and accessibility were attributed to improvements in RGP participants' engagement with consumers, increased understanding of the context for practice and service project outcomes. For services that implemented supernumerary training positions, additional staffing was considered a factor in service improvements. Requirements of the AHRG training position were reported to 'take its toll' on some RGP participants and services, due to time away from clinical work especially when there were staff shortages or resistance to change. At the final timepoint, concerns were expressed regarding sustainability of the RGP benefits when a supernumerary position ceased and the AHRG trainee could be lost from the employing organisation.

3.3 | Part B—Interview results—barriers, enablers, impact and recommendations

Interviews were conducted with 42 participants and included RGP participants with a minimum of 12-month experience in the Level 1 program, their managers and supervisors at all 10 study sites. In the Level 2 program, interviewees included 8 RGP participants with at least 12-month experience of the Level 2 program, and their managers and supervisors at 3 Queensland sites only (Table 4). Interviews were conducted by telephone (n = 39) and videoconference (n = 11) and were of 30-75 minutes of duration. Responses were similar from each participant group (managers, supervisors and RGP participants).

Overall, findings indicate that the RGP was well received by RGP participants (Table 5). The RGP was viewed as an effective education program that facilitated implementation of service projects that led to benefits for the RGP participants, employing organisations and consumers. The RGP was seen to be a tool that contributed to building a rural and remote AH workforce. Key enablers for success of the RGP included alignment of the RGP with the clinical workload and service project, and a stable and supportive employing organisation that was open to change. Key challenges identified for RGP participants were balancing the RGP requirements with the demands of a clinical workload and service project. Key

TABLE 4 Characteristics of interview participants—Level 1 and Level 2

Participant characteristic		Level 1 n = 42	Level 1 %	Level 2 n = 8	Level 2 %
State	NSW	5	12		
	NT	11	26		
	Qld	24	57	8	100
	WA	2	5		
Role	RGP participants	17	40	6	75
	Supervisors	10	24		
	Managers	10	24		
	Supervisor and Manager	5	12	2	25
AH profession	Dietitian	2	5	1	12.5
	Occupational Therapist	5	12	1	12.5
	Pharmacist	6	14		
	Physiotherapist	14	33	4	50
	Podiatrist	2	5		
	Radiographer	3	7		
	Social Work	2	5		
	Speech Pathologist	6	14	2	25
	Other—Registered Nurse	2	5		

challenges for employing organisations included administrative processes involved in creating an AHRG training position, ensuring ongoing supervision within the organisation and sustaining benefits of the RGP and of AHRG training positions in the long-term.

Recommendations from RGP participants, their managers and supervisors for the future of the program focused on strengthening profession and context-specific content of the RGP education program; ensuring alignment between the RGP education program and requirements of AHRG training positions and employing organisations; and ensuring continuous support by employing organisations for the AHRG trainee. Improving administrative processes for creating the AHRG training positions, and sustaining the RGP and AHRG training positions to build the rural and remote AH workforce in the long term were also recommended for the AHRG Pathway.

3.4 | Evaluation findings: integration of part A and part B

Part A findings were confirmed and expanded by Part B findings. Part A demonstrated that RGP participants overall viewed the RGP education program as a positive teaching and learning experience with some improvements to be made. Part B confirmed these findings and also highlighted the importance of the context in which the RGP was undertaken. Particular reference was made to the challenge for RGP participants of managing both the RGP education program and their clinical workload, and for employing organisations of maintaining clinical services while implementing an AHRG training position within their organisation.

Impacts of the RGP when nested within the AHRG Pathway were reported for RGP participants, the AH team within the employing organisation, the service and for consumers. The potential for the RGP to enhance service continuity and sustainability and succession planning was also recognised. The enablers and barriers of the RGP were difficult for evaluation participants to distinguish from those of the AHRG training positions and operational factors relevant to the employing organisation. Accordingly, recommendations made by participants reflected their views on the RGP and the context in which it was undertaken.

Figure 2 illustrates the interaction between the RGP, the AHRG training positions and employing organisation and benefits gained of this interaction. When an AH professional participates in the RGP, when nested within the AHRG Pathway, benefits are gained by the RGP participant and AH team, the service and consumers and for the quality and sustainability of the AH rural and remote workforce.

4 | DISCUSSION

The findings of this evaluation indicate that the RGP education program was well received by RGP participants and by supervisors and managers from their employing organisations. The RGP, when nested within the AHRG

TABLE 5 Major themes and subthemes

Major theme	Subtheme	Findings—summary of the major theme and subtheme	Quotes
A positive, good learning experience with a few teething problems	*An effective education program with relevant content and experiences* *Improvements in content and delivery required* *Offers a career pathway opportunity for AH professionals*	Within the RGP, the majority of participants' experience was positive and productive. The content, design and delivery were perceived as effective and relevant for developing rural AH professionals; however, improvements to the educational experience are required. Together with work-related clinical practice, supervision and involvement in service development projects, the RGP provided the opportunity for RGP participants to integrate learning with practice. Consequently, the RGP, nested within the AHRG Pathway and rural health context, provided a career pathway for those wanting to develop rural and remote practice and establish themselves as rural AH professionals	*Huge … not only their clinical skills … their capability to deliver better clinical care … their professionalism their communication, their time-management … they've gone from somebody very junior who's been in a large team to a sole practitioner who's able to manage services across a number of sites…their capability has grown tenfold (33MG)* *everything was kind of new - brand new and starting it was a bit clunky … hours that were reported by [AHPOQ] that should be put into the program was very different to what was reported by the university – or what she was actually spending on it (02MSB)* *It's very good … to get a grasp on what it means to be a rural and remote allied health professional (01MSD)*
Benefit for the AH workforce, health services, consumers	*Builds capability of rural generalist AH professionals* *Contributes to services and consumer outcomes* *Effective strategy for building a rural and remote AH workforce*	The RGP enhanced participants' performance and when implemented in rural health services made a positive contribution to health care delivery and consumer outcomes. Participants were reported to have developed a broad range of clinical and non-clinical skills that gave them the confidence and capability to work independently as AH generalists within a rural and remote context. The professional development contributed to the quality, capacity and efficiency of the health care service, which was reported to have a positive impact on health care outcomes for consumers. The RGP was regarded as a sound incentive for recruiting AH professionals to work in rural locations. Retention, was perceived as short-term, limited by health service funding and support for ongoing positions	*… watching the growth of the rural generalist throughout and seeing how far they'd come in the space of two years. I think that was quite rewarding for a lot of us, for everyone involved really (91SC)* *It's been a good fit for us because we've essentially had a role filled and we've got somebody in that position who's also had that support and it's allowed us to grow and develop the service (33MG)* *in any workforce, you have to invest, there's different ways of investing, and this is I think, a proven way to invest (55MB)*
Enablers	*RGP content and delivery* *Employing organisation support mechanisms* *Individual's background and capabilities*	Enablers were primarily associated with RGP content and delivery, the work-based service projects undertaken in parallel with the RGP, and support RGP participants received in AHRG training positions and immersed in a rural context. Participants' background and capabilities including their previous experience and personal attributes were reported as enablers that facilitated progress	*… and I've just taken on the quality improvement champion role… so that's why I'm doing that unit now versus next year (11PB)* *…. a really good amount of time to learn a lot of different skills for that one particular area … I can just hard-core do it for six weeks (11PB)* *Networking… … helps you make more friends, make new friends… better work relationships (92PC)* *we had a, forward-thinking general manager who could see how this was an investment (55MB)* *… dependent on the attitude of the person, she is very proactive and, I think she's quite exceptional (34MG)* *… exactly what you need to be a rural generalist,… to be able to cope, …to have resilience … flexibility… hard-working,…to be true to yourself… (03PD)*

(Continues)

TABLE 5 (Continued)

Major theme	Subtheme	Findings—summary of the major theme and subtheme	Quotes
Challenges	*AHRG training position implementation* *RGP content and delivery* *Rural and remote service provision* *Future direction and sustainability*	Aspects related to the RGP content, delivery and factors within their health service context were the most challenging. These factors impeded RGP participant's progress and in some instances, prevented the work-based service development project goals from being achieved. Initial RGP implementation relating to content and assessments, and the need to balance workload demands with study commitments were highlighted. Emphasis was placed on the need for RGP delivery to be aligned with clinical practice, on provision of health service support and for clear communication with RGP participations about the RGP. The threat that temporary positions posed to sustainability was also emphasised	*That [protected study time] was our commitment… and other team members not understanding that and just thinking that she's having this time off and just dillydallying around (81S1)* *… I don't want to start the Level 2…, I don't want to be a guinea pig again… (92PC)* *I've seen seven different allied health directors and six different senior [AHP], so there's been a real lack of continuity (64PD)* *… a lot of people have opted not to do the level one because it's not a recognized qualification … (04PD)* *And he had the right kind of attitude… to be very flexible and… compassionate… and empathetic…, we worked very well as a team… he wanted to do this work, and he wanted to stay (29SE)*
Study participant recommendations	*Strengthen partnerships, communication and orientation* *RGP design and delivery* *Support mechanisms* *Future direction and sustainability*	Recommendations focused on improving the RGP and addressing challenges RGP participants experienced in their health service context. Primary recommendations focused on improvements for design and delivery of the RGP and introducing a qualification on completion of Level 1. Improving implementation of the program and providing resources to support supervision, protected study time and ensuring funding for ongoing positions were highlighted	*…market it a little bit differently…, so that everyone knows exactly what they're getting themselves into. You know, the commitment, the project side of things, the academic side of things, and just the scope of it, and how much of a significant lifestyle change it's going to be for those two years. (03PD)* *An outline of the module would be helpful because it would give me a little bit more guidance on where I can help 210PD… if we found out two weeks before and it just gives us a little bit more time to be a bit more flexible with the workload in the clinic (26SD)* *I would suggest finding really good mentors and having some external mentors as well, mentors on the ground just in case those people that you've got there when you start that aren't there halfway through or when you end (64PD)* *I think they should work on … creating that sort of permanent role for them … as the major barriers is the retention of staff after the program (25PE)* *If we were able to have this program embedded in our core business processes, I think that would be a very beneficial thing to do (27MD)*

Abbreviations: M, manager; P, RGP participant; S, supervisor.

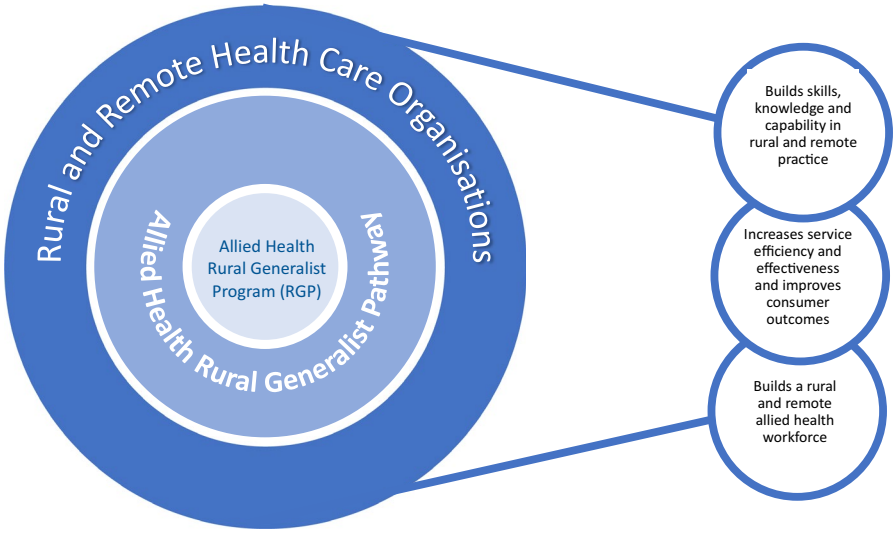

FIGURE 2 The relationship between the RGP the AHRG position and the employing organisation and the benefits gained from this relationship

Pathway, was credited with increasing the skills, knowledge and capability of the RGP participant, improving access to, and quality of AH services and improving consumer outcomes. It is important to acknowledge that while the RGP performed well, the same outcomes might not have been achieved in isolation of the AHRG training position and health service support. The value and sustainability of the RGP as a workforce development strategy therefore will be reliant on 3 elements: a formal education program—the RGP; a training-focused employment structure—the AHRG Pathway; and commitment to the AHRG training position from employing organisations within the rural and remote health care context.

Evaluation findings demonstrate that the RGP education program, developed through university—industry collaboration, provided AH professionals with an effective, work-integrated post-graduate education program that built the essential knowledge and skills required for rural and remote practice. As a post-graduate university program nested within an allied health rural generalist pathway, the RGP addresses the historic dearth of opportunities for post-graduate education relevant to rural and remote allied health professionals.[11,12] Appreciating that ongoing professional development impacts on recruitment and retention in rural and remote practice,[4,24,25] the RGP education program and the AHRG Pathway, offer a promising workforce development model that has potential to attract, retain and develop a fit-for-purpose rural generalist AH workforce.

The value of industry and professional bodies contributing to university course development and delivery is well recognised.[26] A strength of the RGP education program was the collaborative process for development between the participating universities and industry partners. This process occurred throughout the conceptualisation, development and implementation phases of RGP development and ensured that contextual knowledge related to rural and remote practice informed curriculum. The integration of industry goals in alignment with higher education requirements, ensured course credibility and relevance. In concert with the availability of on-site supervision, the RGP promoted engagement in authentic learning within the settings in which the RGP participant worked. Enabling work-integrated learning, where students learn skills and knowledge that are directly applicable to their employment, highlights the educational value of learning in place.[27] A further strength of the RGP is the articulation between Level 1 and Level 2 learning. Level 1 focuses on application of core knowledge and skills specific to the rural and remote context. Level 2 Graduate Diploma of Rural Generalist Practice allows graduates to develop the higher-order critical analysis, problem-solving skills and leadership capabilities required for career advancement, and for contributing to workforce sustainability required to improve health outcomes for rural and remote consumers and communities.

Isolating evaluation findings for the RGP education program from the RGP participants work context is not possible, similar to the findings of other work-integrated learning program evaluations.[28] While work-integrated learning programs are influenced by alignment of education with health care provision in rural and remote locations, such programs are also influenced by workforce shortages amid high health care demand.[29] In this evaluation, the influence of these factors is reflected in the difficult balance between the key elements of the AHRG training positions, particularly RGP assessments with clinical practice and service projects. When the demands of any one element increased (eg RGP assessments due, staff leave increasing workload, project milestones approaching), the balance could be lost and the RGP participant and the service overwhelmed. Such workload management challenges have been linked to lower retention[30,31] highlighting a key issue for employers using the RGP as a workforce development tool.

Rural Generalist Program participants in the evaluation were new graduates or early career AH professionals. New

graduate health practitioners undergo a challenging period of adjustment that requires support[6] particularly in a rural and remote contexts.[32,33] Well-structured support programs, with organisational commitment, have been shown to achieve successful outcomes in professional development and retention of early career health professionals.[28,34-37] In this evaluation, the supervisor role was reported as an enabler to engagement in the RGP, managing workloads and achieving learning outcomes, while conversely, unstable staffing in the supervisor role was reported as a barrier. Recognising the value of dedicated support, health services wishing to support AHRG training positions need to consider a 'backup plan' for professional supervision, including relationships with other health services. Enabling continuity of support in this way is likely to influence retention and equate to considerable cost savings for health care organisations.[7,38-40]

The quality of health care in rural and remote locations relies on the retention of a qualified, competent workforce. Professional experiences are known to be the main drivers for the retention of rural and remote AH professionals in the 'adjustment stages',[41] which corresponds to the career stage of practitioners undertaking the RGP who are generally new to practice, and to their role and community. The RGP supports positive professional experiences including work-integrated professional development opportunities. For health services to capitalise on the retention benefits shown to be associated with work-integrated learning,[42-44] risks to sustainability identified in this evaluation need to be addressed, particularly short-term funding of AHRG training positions. Health services also need to invest in strategies that build connections to the region and community that have been shown to be critical to sustained rural and remote work.[41]

4.1 | Limitations

Rural Generalist Program participants who responded to surveys in Part A and B might have been those who were motivated to share a positive or negative experience that might not reflect all participants' experience. Physiotherapists, occupational therapists and podiatrists from Queensland overrepresented. Although this reflects the general distribution of AHPs in rural and remote practice in Australia and greater participation by Queensland sites, views expressed might not reflect the views of all AH professionals involved in the RGP. Employing organisations who agreed to take part as a study site in Part B might have been more committed to supporting an AHRG training position. Furthermore, employing organisations were predominantly state government organisations with one not-for-profit organisation and no private or Aboriginal or Torres Strait Islander community-controlled organisations. Hence, the findings might not be generalisable to other locations and teams.

The evaluation occurred during the RGP development phase, and as a result, many 'teething problems' experienced in the initial years were addressed prior to the final year of the evaluation period. Responses might have differed between those participants who had been enrolled in the first year, compared to those who enrolled later in the program. A deeper understanding of Level 2 participants' experience was not possible due to the limited number undertaking the program during the evaluation period. A full evaluation during the consolidation phase of the RGP is warranted.

4.2 | Future directions

This evaluation has informed the future of the RGP but also provides important information to guide implementation of AHRG training positions within health services, and development of the AHRG Pathway nationally. With respect to the RGP, as content and delivery improvements are ongoing, the educational value of the curriculum and potential transferability of knowledge and skills to any future work setting need to be maintained. Furthermore, pedagogical techniques are required that engage and support students to broaden their knowledge and skills base in real-world rural and remote practice, as well as enhance organisational growth. RGP alignment with the other elements of the AHRG Pathway must also be a priority, to ensure a balance can be maintained between trainees' development strategies. To maximise the benefit of the RGP for workforce development, health services need to implement and monitor all elements of the AHRG Pathway including supervision, work-based training and service project support. To build service sustainability, the AHRG Pathway needs to be embedded in workforce and business models for public, private for-profit and not-for-profit including Aboriginal and Torres Strait Islander community-controlled organisations. This includes ensuring early career training positions articulate with permanent roles in the team, and that continuity of supervision in the event of vacancies in senior roles is assured. The national development of the AHRG Pathway is progressing and supported as a strategy to address access to AH services for rural and remote consumers.[45] However, health sector investment remains limited and variable across the country, with greater national leadership and resourcing required to translate the benefits of early trials into system-level workforce sustainability gains.

5 | CONCLUSION

The findings of the evaluation indicate that the RGP, when nested within an AHRG Pathway and well supported by committed health services, is a promising model for building

a fit-for-purpose rural and remote allied health workforce. To ensure the future viability and sustainability of the RGP and the AHRG Pathway, it is important to cultivate a strong partnership and a shared commitment between education providers', health services and other health sector stakeholders.

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DISCLOSURE

This research has not been previously published in part or in full elsewhere.

CONFLICT OF INTEREST

Six of the 12 authors are employees of the 2 universities offering the RGP, 4 of whom were involved in the design of the RGP. One author is an employee of the funding body for the implementation and evaluation of the RGP and was involved in the conception and design of the RGP but not in the data collection or analysis. One author is an employee of a participating employer organisation. The authors report no other conflicts of interest.

AUTHOR CONTRIBUTIONS

All authors contributed to writing of the manuscript and gave final approval. RB performed conception, design, data collection, analysis and interpretation, and wrote first draft of manuscript. JC-S involved in conception, design and interpretation, and contributed to manuscript draft. HH involved in data collection, analysis and interpretation, and contributed to manuscript draft. RN involved in design, data collection, analysis and interpretation, and contributed to manuscript draft. IN, DH, JS and NC performed design and interpretation, and contributed to manuscript draft. JC involved in data collection and interpretation, and contributed to manuscript draft. KB performed data collection and interpretation, and contributed to manuscript draft. CP involved in design, analysis and interpretation, and contributed to manuscript draft. SD performed conception, design and interpretation, and contributed to manuscript draft. All authors read and approved the final manuscript.

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APPENDIX I

Project Title: Allied Health Rural Generalist Education Program (AHRGEP) Evaluation

Interview Topic Guide

Interview ID:_____ Male/Female: _____ RGP Participant or Supervisor or Manager: _____
RGP Participants or Supervisors or Managers: _____
Researcher Initials |__|__|__|
Date |__|__/__|__/__|__|

Introduction

I am _____ from _____

✓ General purpose of the study
✓ Aims of the interview
✓ Who is involved in the process
✓ What is required of the participant
✓ What will happen with the collected information and who will benefit
✓ Any questions?
✓ Consent

Topic	Probes
Tell us about your experience of being part of the RGP	• Open interview discussion • What do you think are some of the successes of the RGP that you have identified?

Improve rural generalist knowledge and skills	• Can you tell me about what impact the RGP had on your rural generalist knowledge and skills?
	  • Facilitators/successes: What worked well?
	  • Barriers/challenges: What didn't work so well?

Improve effectiveness, efficiency and accessibility of rural and remote services	• Can you tell me about whether or not the RGP has had an impact on the effectiveness, efficiency and accessibility of your service?
	  • Facilitators/successes: What worked well?
	  • Barriers/challenges: What didn't work so well?

Implementing rural generalist service strategies	• What impact did the project or projects implemented in your workplace projects have on service delivery?
	  • Facilitators/successes: What worked well? Were they useful?
	  • Barriers/challenges: What didn't work so well? What were the challenges?

RGP successes and challenges	• Are there any other points that have made the RGP more of a challenge or more difficult for you that haven't been discussed? • Are there any other points that have helped the RGP be more successful or easier for you that haven't been discussed?

Intention to stay	• What impact has the RGP had on your desire to work in a rural and remote location
	  • What are your views on continuing to work in a rural and remote location?
	  • Are your views any different or unchanged? And why?

Closing

Is there anything else you think is important to discuss about your experience in the RGP?
✓ Summarise
✓ Thank participant
✓ Provide extra information and contacts to participants