

Piloting the implementation and early impacts of a Researcher in Residence (RiR) model with organisations focused on improving equitable outcomes for children and families [in Australia]

Spoorthy Reddy

Centre for Community Child Health

Suzy Honisett

`suzy.honisett@mcri.edu.au`

Centre for Community Child Health

Lauren Heery

Centre for Community Child Health

Kym Buffett

Centre for Community Child Health

Natalie White

Centre for Community Child Health

Kelly Naess

Centre for Community Child Health

Stephanie Fielder

Key Assets Australia

Sophie Gilmour

DPV Health

Kim Manderson

DPV Health

James Isles

Key Assets Australia

Danielle Barth

IPC Health

Amanda Damian

IPC Health

Fiona LeNepveu

IPC Health

Felicity Cummins

Sunraysia Community Health Service

Rachel Fuller

Sunraysia Community Health Service

Janet Hicks

Sunraysia Community Health Service

Anna Price

Centre for Community Child Health

Research Article

Keywords: researcher in residence, implementation science, early childhood, knowledge translation

Posted Date: March 18th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-8826174/v1>

License:  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Additional Declarations: No competing interests reported.

Title: Piloting the implementation and early impacts of a Researcher in Residence (RiR) model with organisations focused on improving equitable outcomes for children and families [in Australia].

Authors:

- *Spoorthy Reddy, Murdoch Children's Research Institute, Melbourne, Victoria, Australia, spoorthyreddy01@gmail.com, ORCID: 0009-0001-2385-4266
- *Dr Suzy Honisett, Murdoch Children's Research Institute, Melbourne, Victoria, Australia suzy.honisett@mcri.edu.au, ORCID: 0000-0002-5066-2534
- Lauren Heery, Murdoch Children's Research Institute, Melbourne, Victoria, Australia lauren.heery@mcri.edu.au, ORCID: 0009-0006-8789-5506
- Kym Buffett, Murdoch Children's Research Institute, Melbourne, Victoria, Australia, kym.buffett@outlook.com
- Natalie White, Murdoch Children's Research Institute, Melbourne, Victoria, Australia whitenv7422@gmail.com ORCID: 0009-0004-6164-9038
- Dr Kelly Naess, Murdoch Children's Research Institute, Melbourne, Victoria, Australia kellyn@nrch.com.au
- Stephanie Fielder, Key Assets The Children's Services Provider (Australia) Ltd, stephanie.fielder@keyassets.org.au
- Sophie Gilmour, DPV Health, Melbourne, Victoria, Australia, Sophie.Gilmour@dpvhealth.org.au
- Kim Manderson, DPV Health, Melbourne, Victoria, Australia kim.manderson@dpvhealth.org.au, ORCID: 0009-0001-9781-5593
- James Isles, Key Assets The Children's Services Provider (Australia) Ltd, james.isles@keyassets.org.au
- Danielle Barth, IPC Health, Melbourne Victoria, Australia
- Amanda Damian, IPC Health, Melbourne Victoria, Australia
- Fiona LeNepveu, IPC Health, Melbourne Victoria, Australia
- Felicity Cummins, Sunraysia Community Health Services, Mildura, Victoria, Australia. fcummins@schs.com.au
- Rachel Fuller, Sunraysia Community Health Services, Mildura, Victoria, Australia. rfuller@schs.com.au
- Janet Hicks, Sunraysia Community Health Services, Mildura, Victoria, Australia. jhicks@schs.com.au
- Dr Anna Price, Centre for Community Child Health, The Royal Children's Hospital, Parkville, VIC 3052, Australia, Population Health, Murdoch Children's Research Institute, Parkville, VIC 3052, Australia, Department of Paediatrics, The University of Melbourne, Parkville, VIC 3052, Australia, Anna.price@mcri.edu.au, ORCID: 0000-0002-8117-8059

*equal first author

Corresponding author: Dr Suzy Honisett

Abstract

Background: The Researcher in Residence (RiR) model embeds researchers into ‘host’ organisations to mobilise and accelerate the translation of evidence into practice. Drawing on implementation science, this pilot aimed to evaluate the implementation outcomes of a RiR model with Australian organisations focused on improving equitable child development (0-12 years) and family wellbeing outcomes.

Methods: A qualitative evaluation was conducted through 12 semi-structured interviews with four RiRs and eight host organisation management and leadership staff. To assess implementation outcomes Proctor’s Implementation Outcomes Framework was used to assess the five most relevant domains (of the framework’s eight): fidelity, feasibility, acceptability, appropriateness, and early impact.

Results: The RiR model was primarily implemented as intended and seen by RiRs and host organisations as feasible, acceptable and appropriate. Early impacts included shifting host organisational attitudes toward evidence use and influencing service design to be more purposeful and aligned with their strategic goals. The host organisations’ capability to work flexibly and relationally, the engagement of leadership staff and the host’s governance structures emerged as critical success factors. Challenges included an unclear understanding of the RiR model and how this was to be implemented, a lack of clarity for the RiR role and the host organisation’s organisational readiness.

Conclusion: The RiR model demonstrates promise as a feasible, acceptable and appropriate model for embedding research and evidence use within organisations to advance equitable child development and family wellbeing. Further refinement and implementation support for the RiR model are however required, including clearer articulation of the model, its processes, and the RiR role. Positioning the RiR as a senior role with strong managerial support may enhance organisational influence and cultural change. Assessing organisational readiness prior to engagement could optimise the timing and impact of the model. Additionally, the research institute should provide structured support and leverage the RiR as a bi-directional knowledge broker, building organisational research capacity while informing institute priorities, to impact.

Keywords: researcher in residence, implementation science, early childhood, knowledge translation.

BACKGROUND

There is increasing recognition of the value of Researchers in Residence (RiRs, also referred to as embedded researchers), as a promising strategy for bridging the persistent evidence-to-practice gap.^{i,ii,iii} Estimated at up to 17 years,^{iv} this gap is particularly concerning in early childhood, whereby timely, evidence-informed interventions can shape lifelong developmental trajectories.^v Early childhood (0-5 years) is a critical period of rapid cognitive, emotional, and social development, and intervening during this period offers the greatest return in terms of benefits and cost-benefit.^{vi,vii,viii} Yet, the translation of this evidence into practice remains inconsistent and slow, undermining efforts to improve outcomes for children.^{ix}

The urgency of bridging this gap is underscored by nearly one-quarter (23.5%) of Australian children being developmentally vulnerable when they start school.^x These vulnerabilities are disproportionately higher among specific groups, with 42.5% of Aboriginal and Torres Strait Islander children, 34.7% of children from socioeconomically disadvantaged backgrounds, and 35.8% of children living in remote and very remote areas identified as developmentally vulnerable. These inequities correspond with the incidence of childhood adversity.^{xi} The scale of developmental risk and inequitable burden underscores the urgency of early intervention. Without effective systems to translate robust research into practice, these vulnerabilities persist, with long-term consequences for health, learning, and well-being. Bridging this evidence-to-practice gap is essential to ensure that high-quality, evidence-based interventions reach those most in need, improving outcomes for children and families nationwide.

The RiR model, which embeds researchers in organisations within health and social sectors, has demonstrated benefits, such as the co-creation of locally meaningful knowledge, strengthened evidence-informed practice, enhanced organisational research capacity, and the development of robust, cross-sectoral partnerships.^{xii,xiii,xiv} Despite these promising benefits, there is a lack of empirical research examining the implementation and impact of RiRs embedded within organisations specifically focused on improving outcomes for children and families, particularly in relation to equity.^{xv,xvi} This paper addresses this gap by piloting an RiR model within five Australian organisations seeking to equitably improve child development and family wellbeing.

The success of RiRs is shaped by a complex interplay of barriers and enablers operating across individual, organisational, and system-wide levels.^{xvii} In a recent scoping review (18 studies published from 2019-2024), Grage-Moore^{xii} examined these implementation factors and their influence on embedded research outcomes. The authors applied the Consolidated Framework for Implementation Research (CFIR 2.0), to provide a structured, theory-informed lens. CFIR assesses context in terms of existing or potential barriers and enablers to successful implementation across five key domains:

intervention characteristics, outer setting, inner setting, individual characteristics, and process.^{xviii} The review found most barriers and enablers to effective RiR models mapped to the CFIR domain of inner setting, highlighting the critical role of organisational culture, relational connections, communication, and structural characteristics in shaping implementation success. Other important implementation factors were allowing enough time to engage host organisation stakeholders to apply research findings and tailoring strategies to the local context of the organisation. These implementation factors were consistently associated with positive outcomes, including enhanced evidence-based practice, improved research capacity, and strengthened collaborative relationships.

The Grage-Moore review provides information on barriers and enablers to implementing a RiR for best outcomes; however, offers little insight into the processes and mechanisms for embedding a RiR within an organisation, including defining their role and how best to support them ('the how'). This paper aims to further this understanding of RiRs by proposing and testing a model of 'how' to embed RiRs effectively within organisations and operationalise this role to equitably advance child development (0-12 years) and family wellbeing outcomes.

Addressing this evidence-to-practice gap requires innovative approaches that not only generate relevant evidence but also embeds it within the systems and practices that shape children's lives. In the context of early childhood, RiR models have the potential to accelerate the uptake of research, improve service quality and access, and ultimately contribute to more equitable outcomes for children and families. We developed and piloted an RiR model for this purpose. This study reports the pilot evaluation. The objectives were developed using Proctor's Implementation Outcomes framework,^{xix} a widely used model in implementation science for conceptualising and measuring interventions. Specifically, we aimed to assess the following, from the perspectives of the host organisations and the RiRs:

1. Implementation:

- a. Fidelity
- b. Feasibility
- c. Acceptability
- d. Appropriateness

2. Early impacts on organisational culture, staff engagement with evidence, and alignment of services to strategic goals.

METHODS

RiR Model development and governance

In this study, a RiR was defined as an employee of a research institution, who had part of their time (salary) funded, through a service agreement with a host organisation, with contract durations ranging 12-24 months.^{xx} The employing research institution was the largest child health research institute in Australia, and the researchers were employed in a department with specialist experience in equitable policy, practice and systems design. Each service agreement with a host organisation evolved during discussions with the research institution about how they could support the host organisation to advance equitable child development and family wellbeing. Given the complexity of this goal, the RiR model was proposed as a structured way to offer evidence-based support that went beyond a typical project-based contract or external consultancy. Each service agreement between the research institute and the host, articulated the co-developed objectives of the placement. RiR managers from the research institute and senior managers from the host organisations worked together to recruit RiR candidates.

Model design

The RiR model offered to host organisations comprised three key activities:

1. Mobilising existing evidence and knowledge.
2. Generating new evidence and knowledge.
3. Supporting the development and implementation of Learning Health Systems.

While (1) mobilising and (2) generating evidence are common outcomes of existing RiR models,^{xxi,xxii} the model piloted in the current study also included activities relating to (3) Learning Health Systems. Learning Health Systems foster the real-time use of data and evidence to inform continuous improvement efforts.^{xxiii} They have been used in healthcare to enhance patient experience, improve healthcare provider experience, promote population health, optimise the value of healthcare services, and advance health equity.^{xxiv} By incorporating Learning Health System development within the role of an RiR, the intention was to enhance the host organisation's capacity and embed systems to co-produce timely, relevant evidence that can be adapted into routine practice to continuously address local priorities.^{xxv}

Setting

Five Australian host organisations with a focus on child development and family wellbeing outcomes agreed to be involved in the pilot RiR model. The host organisations included community health services, family and child support services, and a government department. These organisations focus on local priorities and solutions, supporting urban, rural and remote populations in the states of Victoria and South Australia, and a small, remote and isolated island (located off the coast of NSW).

Location was an important factor for the RiRs and host organisations. Only one RiR, who worked across two host organisations, lived close enough to the host organisations and research institute to work in person at both. The South Australian RiR was based in Victoria, so worked in person at the host organisation (fly-in-fly-out) one week per month and worked at the research institute the rest of the time. The remaining two RiRs lived within the same community as the host organisation, with quarterly fly-in-fly-out arrangements to the research institute.

Implementation of RiR role

The model was implemented from April 2023 to January 2025 by four RiRs. Each RiR was employed to work 0.4 full-time equivalent (FTE) in host organisations and 0.1-0.2 FTE in the research institute. An emergent approach - flexible, iterative, and responsive to local context, was used by the RiR to understand the issues of concern for the host organisation and the subsequent coproduction of work plans and activities listed above in the Model design. Broadly, in the first six months, RiRs engaged with stakeholders to understand the needs of their host organisations and the local communities, and to co-develop initial workplans. The subsequent 6-18 months involved implementing the workplan and regular reflection on learning, adaptations and sustainment of local solutions, while documenting outcomes and lessons learned.

Implementation support and governance

Each RiR was supported by both host organisations and research institute through the following formal mechanisms:

- Host organisations provided regular direct supervision with a senior staff member and established an implementation or project reference group across the host organisation to guide work locally and oversee project related risks and opportunities. Additional supports included:
 - Introductions and engagement with key organisational members (e.g. leaders, frontline team members) and external stakeholders (e.g. local councils and other local service providers) to participate in project design and implementation.
 - Access to organisational knowledge to inform what the organisation does well and what skills it needs to improve.
 - Support to connect with service users to assist with codesign of the project and action plans.
- The research institute provided:
 - Training in relational approaches and small group facilitation.
 - Regular supervision meetings with two staff with experience in research, evaluation and facilitation.
 - A small community of practice for RiRs that met bi-monthly and quarterly in person to reflect, share learnings and support each other.

- Access to content advisors with expertise in child development and place-based approaches to inform RiR thinking and that of their host organisation.
- A reference group comprising representatives from host organisations, RiRs and RiR supervisors that met quarterly to share learnings and deep dive into identified areas of interest across all RiR host organisations.

Table 1. Program Logic

Stage	If...	Then...
Model Design	If we design an RiR model that can be adapted to community and policy partners...	Then the model will reflect the real-world needs, contexts, values, and constraints of diverse organisations.
Implementation	If we implement the RiR model into a select number of organisations for 18–24 months...	Then we can test the operational viability, governance needs, and relational demands of the model.
Implementation Support	If RiRs are supported to work within community-based or government organisations to mobilise evidence, generate evidence and undertake learning cycles....	Then organisations will be better positioned to embed evidence and support continuous improvement.
Assess Pilot Evaluation (Objective 1)	If we use the Proctor Implementation Outcomes framework to assess fidelity, feasibility, acceptability, and appropriateness...	Then we can identify what works, what doesn't, and what adaptations are needed before scaling.
Assess Early Impact (Objective 2)	If the RiR model is implemented with fidelity, and is feasible, acceptable, and appropriate...	Then we can expect improved alignment between evidence and practice.

Assess pilot evaluation and early impacts

This qualitative study used semi-structured interviews with RiRs and staff within host organisations.

Procedures

Recruitment of interview participants

Recruitment of host organisation staff was undertaken by each RiR and included executives, managers and project leads in their host organisation(s) who could provide an organisational perspective of the RiR program. These individuals and the RiRs were then contacted by an independent evaluator (author SR) who invited them to participate in an interview.

Interviewee characteristics

Four managers, three executives and a project lead were invited to take part. Of these, eight (100%/86% respectively) consented, as did the four RiRs, resulting in 12 interviews completed between November 2024-February 2025. The host government department declined an interview due to a restructure during the RiR period, which resulted in changes to the host manager's portfolio. Table 2 presents an overview host organisations sites and participants.

Table 2. Summary of host organisation sites and participants.

<i>Host site</i>	1	2	3	4	5
<i>Type of organisation</i>	Community health service	Community health service	Community health service	Child and family services	State government department
<i>Location</i>	Rural	Outer Metropolitan	Outer Metropolitan	Remote	Statewide
<i>Interview participant role in the organisation</i>	RiR Manager Project Lead	RiR Manager Executive	RiR Manager Executive	RiR Manager Executive	RiR

Note: *one RiR was embedded across two host organisations

Data Sources

The interviews were conducted by an independent evaluator (author SR) using Microsoft Teams to record and transcribe each interview. Recorded, verbal consent was obtained by the participants at the start of the interview. Interviews ranged from 45-60 minutes in length. The Interview Guide (Supplement 1) was co-designed with the RiRs and informed by Proctor's Implementation Outcomes Framework for evaluating outcomes for implementation research.^{xxvi} The domains that guided the semi-structured interviews directly related to the objectives of this project:

- *Fidelity*: Was the RiR model implemented as intended?
- *Feasibility*: Was the model practically implementable across diverse settings?

- *Acceptability*: Was the model valued and supported?
- *Appropriateness*: Did the model meet the operational and strategic needs of the organisations?
- *Early impacts* on organisational culture, staff engagement with evidence, and alignment of services to strategic goals.

The interview transcripts, generated through Microsoft Teams, were de-identified, checked for accuracy against the recordings and electronically stored in a secure, password-protected location on the research institute's network.

Analysis

Transcripts were analysed using NVivo 14, applying deductive (related to the interview question themes above) and inductive (emergent) coding strategies. To enhance the reliability of qualitative analysis, two interview transcripts were double coded by two researchers - author SR and one of the RiR managers, author SH, the latter not being involved in interviews, using the agreed coding framework. Coding discrepancies were discussed and resolved through consensus, ensuring consistency and rigor in theme development. SR subsequently coded the remaining transcripts.

All interviewees were invited to a sensemaking 45-minute workshop to discuss whether the themes that emerged through the coding process, outlined above, represented their opinions. Notes from this meeting were captured and were used to further inform the final themes presented in this paper.

Ethical approval

The Royal Children's Hospital, Melbourne Australia, Human Research Ethics Committee approved this research before commencing (#4057).

RESULTS

The results section outlines key themes that emerged in interviews and the sense making workshop relating to each of the implementation outcomes and early impacts. There is some overlap between objectives and the key themes that emerged, which we reference in each relevant objective below.

1. Assessing Pilot Implementation (Objective 1)

1a. Fidelity: Did implementation align with the intended model design?

Overall, the RiR model was viewed by interviewees as being implemented as intended across the three activities: mobilising evidence, generating evidence and implementing a Learning Health System.

“I think, you know, it's probably also made people more interested in research and what can be achieved through research. Particularly, I think it's because it's translational. You know where you actually take the research and put it in practice and see what happens. I think it's probably made a bit of an appetite for that across the place.” (Host 5)

However, two aspects that influenced implementation as intended were (i) organisational readiness and (ii) the need for a comprehensive and consistent understanding of the purpose of the RiR program.

(i) Organisational readiness, or the extent to which host organisations were prepared to implement change or innovation, varied, impacting on the progress made. Two of the four host organisation interviewees felt their lack of readiness negatively impacted implementation of the RiR model.

“We need to ascertain just how ready [the organisation is] for the RiRs to come in and have really clear expectations from the executive team and the managers and staff that the RiR will be working directly with around how much change is palatable. And I don't think those discussions happened. We were all caught up in how exciting the role is without really thinking that through, but that's been problematic.” (RiR D)

“So I think the way it potentially came in was probably really tricky time point because there was still so much uncertainty and ambiguity.” (Host 4)

In contrast, one host organisation expressed that their organisational readiness was a good match for the RiR model.

“The RiR role in showing the value and the impact of something that is a little bit different and a little bit innovative is exactly what we're trying to do.” (Host 8)

(ii) RiRs and host organisations highlighted the need for a comprehensive and consistent understanding of the purpose of the RiR program and its implementation at the outset and clear role definition.

“I wish I had known more about what the model was so I could be more honest about it up front and more explicit with people about the role it would take. It would have been nice to be able to say ... these are the kinds of roles I might play with you...so that if I am agitating or disruptive, that is actually part of the cultural change that that group wants to do.” (RiR B)

“It's not just the people that will be supporting [the RiR] one-on-one. But it's really the entire program or staffing group that will be working with [them]. Being really clear with them about their role. What it is; what it can do; what it can't do; what are the benefits, limitations of it, etc. So, I think having that kind of information a little bit more upfront will help with that transition and ease into the role.” (Host 4)

1b. Acceptability: Was the model valued and supported by both RiRs and host organisations?

A high level of acceptability of the RiR model was demonstrated with eleven of twelve interviewees stating they would continue to engage an RiR within their organisation or continue working as an RiR. In addition, host organisations valued the RiR model's (i) alignment with innovation and (ii) integration of evidence into organisational ways of working. Alignment and innovation (i) points are captured by two host organisations as follows:

“We really want to find pockets of opportunity here at [Host organisation] where we can make positive change that doesn't quite fit with what general mainstream [Service type] looks like. The role that [the RiR] played was amazing. It fed directly into our innovation and our creativity and making sure that we are able to capture that in a way that actually can prove that we can do things differently.” (Host 8)

“It would become something that is business as usual, part of practice that you work alongside people who are doing this two-way thing of trying to increase the level of evidence used in decision making as well as capture learnings and good evidence for future.” (Host 2)

This innovation mindset translated beyond just creating frameworks and theories of change documents, into being able to (ii) integrate evidence into organisational practice. RiRs were able to set up the mechanisms to translate evidence into practice, which was facilitated by their knowledge gained about the workings of the organisation through relationship building across the organisation.

“It took some time because it's such a unique place. The initial researcher took plenty of time to understand what it's like living in [x]: the challenges and the

benefits. There was some research around life [at site X] and the pros and cons etcetera. That led to a kind of agreement about what our theory of change looks like for the child and family well-being service.” (Host 1)

However, three modifications were suggested to improve acceptability: (iii) a comprehensive and consistent understanding of the purpose of the RiR program and its implementation at the outset and clear RiR role definition (iv) a clearer understanding of how the organisation integrates and best utilises the model, ensuring the organisation is ready for change (both outlined in Fidelity), and (v) developing different governance structures within host organisations to support the RiR role and implementation of the model (outlined in the section below – Appropriateness).

“It took a while to really establish what is [the RiR’s] role and how hands on it is or isn’t it in the context of things?” (Host 4)

1c. Appropriateness: Did the model meet the operational and strategic needs of the organisations?

Compatibility of the RiR model with the host organisations’ needs varied. While some organisations facilitated integration and collaboration, others faced structural or organisational cultural barriers that limited effective implementation. Common themes emerged from interviews about proposed improvements to the governance of the RiR model both at the research institute and the host organisation and the importance of strong relationships between the RiR and host organisations.

Suggested improvements for the research institute included:

- (i) Greater involvement in the work and support for the RiR.

“The engagement that we’ve had [from research institute] has been lovely, respectful, supportive, but it just feels disconnected and distant.” (RiR B)

- (ii) Greater research institute knowledge and experience in how some of the host organisations worked.

“[It was a] barrier not having anybody at [research institute] who knew the environment I was working in, and it remains a barrier.” (RiR C)

This last quote highlights the important role that RiRs can play in bi-directional knowledge translation, whereby RiRs can advise the research institute on how community organisations and government departments operate and how this can impact research in a ‘real-world’ setting. This bi-directional role of knowledge translation was not explicitly included in the RiR model.

Suggested improvements for the host organisations included:

(iii) Creating a clear governance structure for the RiR. Clarifying the RiR's team and reporting line would enable the RiR to understand their position within the host organisation and potentially increase their visibility and influence.

"People didn't know what to do with me or how to use me. What value I could add. I wasn't being promoted by the leader. So then people don't know. And when you're in that siloed, hierarchical structure, it's even harder to go outside your normal realm to do those sorts of things, because you don't know if you'll get in trouble or if you're wasting your time[...]" (RiR A)

(iv) Strong leadership and high level 'buy in'.

"You've got to have a manager very involved in the project. [...] You have to have someone who is facilitating and championing and keeping it on track and [...] keeping the staff motivated and understanding what it is if they're not understanding. We have to continually encourage them and help them understand why that there's a value [in RiR's]." (Host 2)

"I think having kind of high leadership buy in to the point where they also see value in having an iterative model, where we're constantly going through cycles of test and learn, etc. [Staff] wouldn't necessarily think there's value to that. So I think it depends on having that vision higher up in the organization." (Host 4)

(v) Clarifying language, such as the term 'research' (in Researcher in Residence), which had potential to create power imbalances and disengage host organisational staff.

"Some of the staff may have felt a little bit intimidated by someone coming in and telling them what to do and how to do it when they've done it for so long... The RiR was looking from a theory perspective, [...] our staff were looking from a practical perspective". (Host 8)

(vi) Recognition of the time and effort to develop relationships and relational practice:

"a lot of our work is relational. The way you do change is about is based on the relationships you have with people [...] You know you're doing a lot of work in that the service design, [...], but the reality of changing a service is that it has to be done person by person, between provider and client. So, it's still at that individual level, even though you might say for an entire workforce or entire population." (RiR A)

There was recognition that the process of developing relationships and building trust was important and that it can be frustrating as well:

"So it has been looking at things very open-ended, developing those relationships, taking time and it feels so tedious and you just want to be producing work and you want to be demonstrating impact and creating outputs, but you don't. That's really challenging but essential[...]the work can speed up. So I wouldn't have been able

to work as quickly as what I have been able to in the later part of the program had I not invested that time that I did early on." (RiR D)

Interviewees discussed how the focus of the RiR role morphed throughout their time in the organisation due to changing needs and priorities of the host organisation. This served as a testament to the adaptability and flexibility of the RiRs to continue in a different project than originally intended. The strong relationships developed between the RiR and host organisation assisted in supporting this flexible and adaptable approach.

1d. Feasibility: Was the model practically implementable across diverse contexts?

The RiR model was generally seen as feasible; however, three factors were suggested to improve its success.

(i) Hiring a RiR local to the host organisation was seen as an enabling factor, allowing the RiR role to develop an understanding of the host organisation and its culture, build relationships with staff and easily capture community input, and understand the contextual needs of the population.

"I struggled to see how it would have worked if she wasn't place based [...] I don't think it would have worked if she just came up here once a month for a day or two. I think it was really good that she really knew the staff, knew the town, knew the stuff that was going on. And knowing what was going on at [Host organisation]." (Host 7)

(ii) Knowledge of organisational context was invaluable.

"I felt that the RiR individual had already come to us with experience of [Service type] and I actually think that is invaluable because [Service type] is entirely different to [other service types] and you need to understand the differences in governance, in operations, in funding, in strategy to be able to hit the ground and talk the talk and engage with management stakeholders and make sure that the project makes sense." (Host 3)

Notably, there were more challenges recruiting RiRs in rural and remote than metropolitan areas. In addition, a drawback for some RiRs being local to host organisations meant being far from the other RiRs and the research institution.

(iii) The length of the RiR service agreement was broadly seen as sufficient for change, if adequately supported.

"Look, I think 2 years was enough time to see change, but I think it is very much dependent on other roles as well. So, I think having a project manager role was really helpful. For this piece of work, having leadership buy-in as well and having the right forum in which to connect with others does support it." (Host 4)

There were differing views between interviewees regarding the feasibility of the part time nature of the RiR role. Benefits identified by some interviewees included having time for stakeholders to respond to the RiR's requests between days of work, while others stated RiR roles working part time was inefficient due to having to attend too many meetings and travel and potentially losing traction on the project between days off work.

2. Assessing Early Impacts (Objective 2): on staff engagement with evidence, and conceptualisation and organisation of services to strategic goals.

Two areas of early impact were identified in interviews.

(i) The RiRs' ability to build strong relationships with members of the host organisations helped overcome barriers to trusting and using evidence and research:

"The role of [the RiR] has been to create opportunities for those different relationships to develop. I think that's significant." (RiR D)

"Staff engagement evolved over time. From being wary about what they're actually going to achieve to actually considering and applying the things that they've learned within their practices." (RiR C)

"[some] leaders [initially] being quite disengaged and too busy to now being really motivated, engaged and committed. And you know, that just shows the shift." (Host C)

Early changes in relationships and levels of engagement allowed the RiRs to gain greater involvement in host organisational meetings where their voices were heard.

"To be able to achieve this with the structure of meetings and skills that they've learnt within those meetings have also meant that they've been able to progress in leading the project as well." (RiR C)

Many staff reached out to the RiRs for relevant support.

"I think it's been more inclusive over time. Once some of that leadership and management group got the service design, they understood [the RiR's] role better. I think they were able to work with her better and include her in more relevant meetings and collaboration opportunities." (Host 5)

(ii) Five of eight host organisation interviewees stated the RiR role and work informed how the organisation organised and conceptualised its services and programs for children and families, to be more purposeful, evidence-informed and align with their strategic goals.

"I'm not sure that it's positioned us to undertake formal research yet... It definitely informed the leadership group on the relevance of theory of change, how to

document a theory of change, and how to connect your project to that theory of change." (Host 3)

"[The RiR] really made us focus and think about how we go about delivering services. We are like a product of several different funding streams. We always struggle to get an integrated kind of streamlined approach... if we can get that integration going and we can get all those services working together, then we're going to end up with a much better outcome for our families than separate services here, there and everywhere." (Host 5)

"But the impact has come through validating and legitimising the really good work that was already happening." (RiR D)

DISCUSSION

This study evaluated the implementation of a pilot RiR model within five Australian organisations seeking to improve equitable child development and family wellbeing outcomes. Through interviews with eight managers of host organisations and four RiRs, we found that the model was primarily implemented as intended, feasible, acceptable, and appropriate. The main themes (mechanisms) underpinning these objectives were that the RiR model helped foster strong relationships, shift organisational attitudes toward evidence use, and influence service design to be more purposeful and aligned with strategic goals. However, the objectives would have been more readily met if the RiR model, RiR role, implementation processes, and governance were clearer, and if the host organisations had greater organisational readiness to embed the model. These findings contribute to the emerging evidence base on embedding RiRs to bridge the gap between evidence and practice.

The importance of clarity regarding the RiR model and role are supported through existing RiR research highlighting the importance of a lengthy embedding phase.^{xxvii,xxviii} With time, the RiR can learn the host organisation's context and goals^{xxix,xxii} which enables the RiR to attune their role to better meet the needs of the host organisation. Research also shows that changing organisational culture is a long-term process requiring sustained investment, and RiR roles will evolve over time as the capacity of the host organisation changes.^{xxx} As found in the current study, managing expectations of an evolving RiR role requires clear communication between stakeholders, as well as effective governance. Chukwu et al. (2024) also identified the importance of a supportive environment that values research and evidence. Holding et al. (2024)^{xxxi} further noted that mutual respect of practitioner and research experiences is important for minimising power imbalances. As we found in this study, the term 'research' (in the title Researcher in Residence), had potential for creating power imbalances and discouraging workforces in host organisations from engaging with the RiRs.

Our findings also align with studies that describe important attributes of an RiR, namely, the ability to work relationally and flexibly.^{xxxii} Wong (2008)^{xvi} found that the relationships and communication between researchers and practitioners are crucial for effective collaboration and knowledge sharing, and that higher levels of 'embeddedness' of an RiR helps develop strong, trust-based relationships, foster an environment that implements research findings, and build research capacity within the organisation. Building and maintaining relationships required RiR and host organisation time, trust, and ongoing support, which can be difficult to sustain, particularly in resource-constrained settings. Therefore, this activity must be explicit in the RiR model and RiR's planned work schedule.

Strengths and limitations

The strengths of this study include the co-production of the RiR model by host organisations and the research institute. While the supports provided by organisations to the RiRs were noted as a strength, additional supports, particularly through the research institute, such as greater operational support and knowledge of how host organisations operate, were recognised as necessary for improving the model. Greater levels of involvement in the RiR model by the research institute would need to be planned and costed into future RiR models.

More of the staff involved in the model development and interviews were from community health organisations, so our findings may better represent this sector than the place-based and government organisations. Another potential limitation is that the implementation of the RiR model was at different stages across organisations (ranging 18-24 months). Given the importance of time for building relationships and effectively evolving the RiR role, the variability in timing may have affected the consistency of findings between sites.

Although managers and senior executives from host organisations were involved in the co-development of the RiR model and took part in interviews, there was a lack of front-line practitioner (nurses, mental health professionals, social workers) involvement, so the findings may not generalise to these workforces. Finally, data were collected from interviews only. In addition, data collection relied solely on interviews; consequently, no documentary review was undertaken to establish a baseline level of activity or to assess changes in evidence-based practice over time.

Implications

Our pilot RiR model would be improved through the refinements identified in this evaluation. These include being clearer with host organisations about the RiR model, role, and implementation. Agreements must also be explicit that the RiR role and function are likely to be emergent and will be most effective if supported with time and other resources needed to develop relationships across the host organisation, and between the host organisation and research institute. Organisational readiness for the proposed change, although likely to change with time and support, could potentially be measured among the host organisation workforce before an RiR is engaged and embedded within an early learning cycle to determine local solutions for improvement.

In our study, we found that it would be beneficial for the RiR to be positioned as a senior role within the host organisation. This means reporting to a supportive senior manager or executive or having senior management or executive support to increase their influence. Finally, the research institute should consider additional support for the RiR and their host organisation including purposeful facilitation of the RiR's role as a bi-directional knowledge translator who both builds the research capacity of their host organisation and advises the research institute on how host organisations operate and how this should impact research priorities and approaches.

CONCLUSIONS

The RiR model shows promise for bridging the evidence to practice gap in organisations supporting equitable child development and family wellbeing outcomes. With refined governance, stronger implementation supports, and better integration into host systems, the model could be improved and evaluated for its effectiveness to drive meaningful improvements in terms of equitable outcomes for children and their families.

Declarations

Ethics approval and consent to participate: Approved by RCH HREC (#4057). Verbal consent was obtained from participants.

Consent for publication: All participants consented to publication of anonymised findings.

Availability of data and materials: De-identified transcripts are available on request.

Competing interests: The authors declare no competing interests.

Funding: The RiR project gratefully received funding from the Brian M Davis Charitable Foundation, and host organisations also contributed funding for the RiR and support roles. Author AP was supported by The Erdi Foundation Child Health Equity (COVID-19) Scholarship and Veski FAIR Fellowship.

Authors' contributions: All authors were involved in the development, analysis and co-authoring of this paper. SR, SH and AP lead the writing process.

Acknowledgements: We thank the RiRs, host organisation staff, and advisory team who contributed to this evaluation.

References

- ⁱ Cheetham M, Wiseman A, Khazaeli B, Gison E, Gray P, Van der Graf P, Rushmer R. Embedded research: a promising way to create evidence-informed impact in public health? *J Public Health* 40;1;i64-70. doi:10.1093/pubmed/fdx125
- ⁱⁱ Holmes BJ, Best A, Davies H, Hunter D, Kelly MP, Marshall M, Rycroft-Malone J. Mobilising knowledge in complex health systems: a call to action. 2017. *Evidence and Policy*, 13, Article 3. doi.org/10.1332/174426416x14712553750311
- ⁱⁱⁱ Marshall M, Pagel C, French C, Utley M, Allwood D, Fulop N, Pope C, Banks V, Goldmann A. Moving improvement research closer to practice: the Researcher-in-Residence model. *BMJ Qual Saf.* 2014 Oct;23(10):801-5. doi:10.1136/bmjqs-2013-002779. Epub 2014 Jun 3. PMID: 24894592; PMCID: PMC4173968..
- ^{iv} Morris ZS, Wooding S, Grant J. The answer is 17 years, what is the question: understanding time lags in translational research. *J R Soc Med.* 2011 Dec;104(12):510-20. doi:10.1258/jrsm.2011.110180. PMID: 22179294; PMCID: PMC3241518.
- ^v Shonkoff JP, Boyce WT, McEwen BS. Neuroscience, Molecular Biology, and the Childhood Roots of Health Disparities: Building a New Framework for Health Promotion and Disease Prevention. *JAMA.* 2009;301(21):2252–2259. doi:10.1001/jama.2009.754
- ^{vi} National Research Council (US) and Institute of Medicine (US) Committee on Integrating the Science of Early Childhood Development. *From Neurons to Neighborhoods: The Science of Early Childhood Development.* Shonkoff JP, Phillips DA, editors. Washington (DC): National Academies Press (US); 2000. PMID: 25077268.
- ^{vii} Heckman JJ. Skill formation and the economics of investing in disadvantaged children. *Science.* 2006 Jun 30;312(5782):1900-2. doi:10.1126/science.1128898. PMID: 16809525.
- ^{viii} O'Connell, M. 2025, The Cost of Late Intervention 2024, The Front Project, Melbourne. Available at: <https://www.aedc.gov.au/resources/detail/2024-aedc-national-report><https://www.thefrontproject.org.au/media/attachments/2025/09/26/coli--2024-e-report-190925-86.pdf>
- ^{ix} Stansbery P. Translation of evidence to practice to promote early childhood development programs. *Annals of NY Academy of Sciences* 2018.May. doi.org/10.1111/nyas.13721
- ^x Australian Government. AEDC National Report 2024.Early childhood development in Australia. Available at: <https://www.aedc.gov.au/resources/detail/2024-aedc-national-report>
- ^{xi} O'Connor M, Slopen N, Becares L, Burgner D, Williams DR, Priest N. Inequalities in the distribution of childhood adversity from birth to 11 years. *Acad Pediatr.* 2020;20(5):609-18.
- ^{xii} Grage-Moore S, Reddy S, Honiset S Galvin E, Skouteris H, Morris H. A Scoping Review of Barriers and Enablers to Embedded Research Within Practice-Based Organisations.2025. *Glob Implement Res Appl* doi.org/10.1007/s43477-025-00197-z
- ^{xiii} Gradinger F, Elston J, Asthana S, Martin S, Byng R. Reflections on the Researcher-in-Residence model co-producing knowledge for action in an Integrated Care Organisation: a mixed methods case study using an impact survey and field notes. 2019. *Evidence & Policy*, 15(2), 197-215. doi.org/10.1332/174426419X15538508969850
- ^{xiv} Vindrola-Padros C, Pape T, Utley M, Fulop N. The role of embedded research in quality improvement: a narrative review. 2016. *BMJ* 26:1. doi.org/10.1136/bmjqs-2015-004877
- ^{xv} Wong S. Tales from the frontline: the experiences of early childhood practitioners working with an 'embedded' research team. *Eval Program Plann.* 2009 May;32(2):99-108. doi: 10.1016/j.evalproplan.2008.10.003. Epub 2008 Oct 18. PMID: 19036451.
- ^{xvi} Jackson D, Shahabuddin ASM, Sharkey AB Kallander K, Muniz M, Mwamba R, Nyankesha E, Scherpbier RW, Hasman A, Balaranjan Y, Albright K, Idele P, Swartling Peterson S. Closing the know-do gap for child health: UNICEF's experiences from embedding implementation research in child health and nutrition programming. *Implement Sci Commun* 2, 112 (2021). doi.org/10.1186/s43058-021-00207-9

-
- ^{xvii} Ward V, Tooman T, Reid B, Davies H, Marshall M. Embedding researchers into organisations: a study of the features of embedded research initiatives. 2021. *Evidence & Policy*, 17(4), 593-614. doi.org/10.1332/174426421X16165177580453
- ^{xviii} Damschroder LJ, Reardon CM, Widerquist MAO, Lowery J. The updated Consolidated Framework for Implementation Research based on user feedback. 2022. *Implementation Sci* 17, 75. doi.org/10.1186/s13012-022-01245-0
- ^{xix} Proctor E, Silmere H, Raghavan R, Hovmand P, Aarons G, Bunger A, Griffey R, Hensley M. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Adm Policy Ment Health*. 2011 Mar;38(2):65-76. doi:10.1007/s10488-010-0319-7. PMID: 20957426; PMCID: PMC3068522.
- ^{xx} McGinity R, Salokangas M. Introduction: "Embedded Research" as an approach into academia for emerging researchers. *Manag Educ* 2014;28:3–5. doi:10.1177/0892020613508863
- ^{xxi} Marshall M, Pagel C, French C, Utley M, Allwood D, Fulop N, Pope C, Naks V, Goldmann A. Moving improvement research closer to practice: the Researcher-in-Residence model. *BMJ Quality & Safety* 2014;23:801-805. doi:10.1136/bmjqs-2013-002779. Epub 2014 Jun 3. PMID: 24894592; PMCID: PMC4173968.
- ^{xxii} Gradinger F, Elston J, Asthana S, Martin S, Byng R. Reflections on the Researcher-in-Residence model co-producing knowledge for action in an Integrated Care Organisation: a mixed methods case study using an impact survey and field notes. *Evidence & Policy*. 2019. 15(2), 197-215. doi.org/10.1332/174426419X15538508969850
- ^{xxiii} McGinnis JM, Stuckhardt L, Saunders R, Smith M. *Best Care at Lower Cost: the Path to Continuously Learning Health Care in America*. Washington (DC): National Academies Press; 2013. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK207225/>
- ^{xxiv} Foley T, Fairmichael F. The Potential of Learning Health Care Systems. The Learning Healthcare Project, 2015. [Online]. Available: https://learninghealthcareproject.org/wp-content/uploads/2015/11/LHS_Report_2015.pdf
- ^{xxv} Chukwu OA, Nadigel J, Kasaai B, Boateng R, Glazier RH, McMahon M. Understanding the training, mentorship, and professional development priorities of early career embedded researchers. *Int J Health Plann Manage*. 2024 Sep;39(5):1277-1297. doi:10.1002/hpm.3800. Epub 2024 Mar 25. PMID: 38527109.
- ^{xxvi} Proctor E, Silmere H, Raghavan R, Hovmand P, Aarons G, Bunger A, Griffey R, Hensley M. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Adm Policy Ment Health*. 2011 Mar;38(2):65-76. doi:10.1007/s10488-010-0319-7. PMID: 20957426; PMCID: PMC3068522.
- ^{xxvii} Lewis SJ, Russell AJ. Being embedded: A way forward for ethnographic research. *Ethnography* 2011;12:398–416. doi:10.1177/1466138110393786
- ^{xxviii} Edwards RC, Kneale D, Stansfield C, Lester S. What are the mechanisms driving the early stages of embedded researcher interventions? A qualitative process evaluation in English local government. *Soc Sci Med*. 2024 Jan;340:116407. doi:10.1016/j.socscimed.2023.116407. Epub 2023 Nov 13. PMID: 38016307.
- ^{xxix} Hackett EJ, Rhoten DR. Engaged, embedded, enjoined: Science and technology studies in The National Science Foundation. *Sci Eng Ethics* 2011;17:823–38. doi:10.1007/s11948-011-9307-x
- ^{xxx} Edwards RC, Kneale D, Stansfield C, Lester S. What are the mechanisms driving the early stages of embedded researcher interventions? A qualitative process evaluation in English local government. *Soc Sci Med*. 2024 Jan;340:116407. doi:10.1016/j.socscimed.2023.116407. Epub 2023 Nov 13. PMID: 38016307.
- ^{xxxi} Holding E, Gettings R, Foster A, Dowrick L, Hampshire S, Haywood A, Homer C, Booth A, Goyder E. Developing the embedded researcher role: Learning from the first year of the National Institute for Health and Care Research (NIHR), Health Determinants Research Collaboration (HDRC), Doncaster, UK. *Public Health Pract (Oxf)*. 2024 May 22;7:100516. doi:10.1016/j.puhip.2024.100516. PMID: 38846108; PMCID: PMC11153224.

^{xxxii} Stansfield C, Kneale D, Edwards RC. The joys and frustrations of life as an embedded researcher: Findings from a diary study of researchers embedded within local authority public health teams in England. PLoS One. 2025 Jul 28;20(7):e0328996. doi:10.1371/journal.pone.0328996. PMID: 40720486; PMCID: PMC12303328.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Supplement1InterviewGuide.docx](#)