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PRINCIPLES OF NUTRITION AND DIETETICS

A realist evaluation of a community of practice for dietitians and nutritionists working in Aboriginal and Torres Strait Islander health

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Abstract

Background: Communities of practice have been proposed as a workforce development strategy for developing dietitians, yet little is known about how they work and for whom, as well as under what circumstances. We aimed to understand the mechanisms by which dietitians working in Aboriginal and Torres Strait Islander health benefit from communities of practice.

Methods: A realist evaluation of 29 interviews with non-Indigenous dietitians and nutritionists was employed, which was conducted over the course of two communities of practice (2013 and 2014) and follow-up interviews in 2019. Programme theory was developed from analysis of initial interviews and used to recode all interviews and test theory. The identification of patterns refined the programme theory.

Results: Six refined theories were identified: (1) a community of practice fosters the relationships that support navigation of the many tasks required to become more responsive health professionals; (2) committed and open participants feel supported and guided to be reflexive; (3) sharing, reflexivity, feedback and support shift awareness to one's own practice to be able to manoeuvre in intercultural spaces; (4) through sharing, feedback, support and collaboration, participants feel assured and affirmed; (5) connection through feelings of understanding and being understood contributes to commitment to remain working in the area; and (6) through sharing, feedback, support and collaboration, participants with varied experience and roles see the value of and gain confidence in new perspectives, skills and practices.

Conclusions: Further research is required to test this model on a much larger scale, with communities of practice inclusive of Aboriginal and non-Aboriginal health professionals together, and across a diverse group of dietitians.

KEYWORDS

cultural competence, group learning, Indigenous, professional development, workforce development

Annabelle Wilson and Marian Cornett contributed equally to this work.

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Key points

- We conducted a realist evaluation of 29 interviews with non-Indigenous dietitians and nutritionists engaged in communities of practice to understand how communities of practice work and for whom, as well as under what circumstances.
- Using a series of interviews over a period of 6 years, the evaluation found that a range of outcomes (responsive health professionals, ability to manoeuvre in intercultural spaces, retention in this area of practice, increased confidence) were possible in contexts where participants were committed, open and willing to share and were activated by being supported and guided through reflexive practice, peer feedback and being understood.
- Engaging in reflexive practice and peer feedback with people who understand your work experiences (empathy) where new perspectives and practices are valued, were critical for supporting achievement of outcomes.

INTRODUCTION

All health professions are recognised for their important role in providing culturally responsive and effective health care for Aboriginal and Torres Strait Islander peoples.[1] Simultaneously, health professions are criticised for perpetuating healthcare provision that reinforces racist stereotypes and dismissing the complex interplay between social, political and historical determinants affecting Aboriginal peoples' experiences of health care.[2–4] Having a suitably qualified and culturally capable health workforce is a priority for governments and health agencies internationally. The capacity of the existing workforces together with strategies to support the education of workforces in training are essential for ensuring local and global health needs are met and that the perpetuation of biased and exclusionary health provision is minimised.[5]

The nutrition workforce is an important part of the prevention and management of many of the health issues that disproportionally impact Aboriginal and Torres Strait Islander peoples in Australia.[6–9] Although health priorities vary across countries, Aboriginal and Torres Strait Islander health, and indeed nutrition, is a recognised priority for all Australian governments.[10] The experiences of Aboriginal and Torres Strait Islander peoples in Australia can provide learnings for other First Nations' communities internationally, with similar health and social outcomes seen in First Nations' communities globally[11] and the need for culturally safe and responsive care to be provided regardless of location.[12] Dietitians are a key part of the nutrition workforce. Dietitians are health professionals who apply the science of food and nutrition to promote health, and prevent and treat disease to optimise the health of individuals, families, communities and populations.[13] They play an important role in working with Aboriginal and Torres Strait Islander communities, yet there evidence to suggest that dietitians need to be more equipped to be culturally safe and responsive.[14] The overwhelming majority of dietitians in Australia are non-Aboriginal people, with only a total of 32 individual dietitians who self-identified as Aboriginal and/or Torres Strait Islander in 2020.[15] There is also lack of evidence of effective workforce development strategies for dietitians working in Aboriginal and Torres Strait Islander health.

Dietitians are trained within an evidence-based paradigm that prioritises Western knowledge systems[16] and positivist biomedical sciences[17] with variable approaches to teaching Aboriginal and Torres Strait Islander health that differ between universities.[18,19] This does not adequately prepare dietitians to work within Aboriginal and Torres Strait Islander communities, nor across worldviews and knowledge systems that differ from how they were taught to approach their practice. Studies report perceptions of such cross cultural work as being 'too hard' and dietitians being 'too scared' to try.[20,21] The implication of this is that, for Aboriginal peoples seeking the services of dietitians, their healthcare will be a cross-cultural experience with non-Aboriginal dietitians by necessity and not by choice, which in turn results in racism and culturally unsafe practice that may have an impact on their nutrition and health outcomes.[22,23]

Non-Aboriginal dietitians and other health professionals working in Aboriginal health settings have identified that awareness of the ongoing impacts of colonisation, personal ideologies, collegial relationships with Aboriginal health professionals, opportunities for self-reflection and supportive workplaces are important factors for facilitating effective workers.[20] Additionally, non-Aboriginal dietitians and health professionals report that professional isolation, risk of burn out, lack of confidence, feelings of discomfort and fear are individual factors which are barriers for dietitians continuing to work in Aboriginal health settings.[20,24] Therefore, methods to support and sustain established dietitians in Aboriginal health settings are an important contribution to the broader Aboriginal health equity agenda, as well as for First Nations communities globally.

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Effective workforce development for health professions, often termed continuing professional development, includes a range of strategies for developing personal and professional attributes of the professional and health teams to deliver safe and effective health systems and services.[25] Of the evidence that exists for professional development in Aboriginal and Torres Strait Islander health, professional networks or group mentoring have been shown to contribute to dietitians' decisions to begin and continue working in rural and remote locations[26] and in Aboriginal and Torres Strait Islander health.[27] Formalised professional networks, with regular, facilitated, guided and structured reflective practice, peer mentoring groups or communities of practice, have been shown to be an effective workforce capacity-building intervention for dietitians,[28,29] public health nutritionists working with Aboriginal and Torres Strait Islander stores,[30] and dietitians/nutritionists working in Aboriginal and Torres Strait Islander health.[31–33] According to communities of practice theory, learning is a social process. Through participation in a community with shared experience of practice learning takes place. [34–36] The ways in which communities of practice support dietitians' work with Aboriginal and Torres Strait Islander health, and also First Nations health globally, and why they work and under what circumstances, are yet to be described.

In the present study, we take a realist approach to evaluating a community of practice for dietitians and nutritionists working in Aboriginal and Torres Strait Islander Health. Realist approaches in nutrition and dietetics have been proposed as an effective approach at dealing with the complexity of nutrition interventions.[37] The present study aimed to identify the outcomes achieved by the community of practice and to elicit for whom and under what circumstances they are achieved. Although conducted in the specific context of Aboriginal and Torres Strait Islander health in Australia, the outcomes identified are of relevance to, and will provide learnings for, dietitians working with First Nations communities globally.

METHODS

Study design

A realist evaluation of existing longitudinal interview data was conducted because previous evaluations of the community of practice had been unable to determine the conditions in which outcomes were achieved and what underlying factors triggered the outcomes. This realist evaluation focussed on an existing community of practice implemented and evaluated to strengthen the capacity of dietitians with a specific role in working to improve the nutrition and health of Aboriginal and Torres Strait Islander communities. The design of the community of practice was based on similar initiatives[28,29] and implemented and facilitated by some of the investigators (AW, RD and CP). This community of practice was developed based on Wenger's community of practice theory whereby a group of people, with a common interest, come together to share resources and create new knowledge to advance a topic of professional practice.[38]

Realist approaches to evaluation aim to unpack and understand why complex programmes or interventions do or do not work.[39] Realist approaches are theory-driven, where initial theory development (programme theory) guides the process from the outset and subsequent data extraction and synthesis informs theory refinement. The refined theory aims to explain why complex programmes or interventions do, or do not, work and in which particular contexts or settings.[39] The present study was guided by the standards for reporting realist evaluations.[40]

In realist evaluation, interventions or programmes are proposed to lead to *outcomes* through the action of *mechanisms* that are causal within certain *contexts*. Realist evaluation aims to identify and explain underlying mechanisms and the contexts in which they produce certain outcomes.[39] Realist evaluation posit that it is not the intervention itself that creates the change but rather it is *people* in response to that intervention who create the change. Therefore, mechanisms usually involve reasoning, choices, norms or collective beliefs. Mechanisms are typically hidden, contextually influenced and produce certain outcomes.[41] In their relationship with outcomes, mechanisms can either cause, or not, the outcome.[42] Realist evaluation also suggest that the relationship between an intervention or programme, the underlying mechanisms and the outcomes of a programme or intervention are complex, nuanced and sensitive to contextual variations.[39] Context may be material resources and social structures or the elements within a particular setting.[41] Context may also relate to the individuals participating in programmes, to stakeholder inter-relationships, to institutional arrangements in which programmes sit and/or wider cultural, economic and/or societal settings for programmes.[43]

In realist evaluation, it is the relationships between interventions, context, mechanism and outcomes, otherwise known as Context (C), Mechanism (M), Outcome (O) configurations, that are of primary interest.[39] Realist evaluations aim to identify patterns, termed demi-regularities, across CMO configurations, which are used to confirm and/or refine the programme theory.[10,44] As such, our evaluation sought to understand what was it about this intervention (the community of practice) that worked (or did not) (outcomes) and under what circumstances (contexts) and how and why (mechanisms).

Data collection

In the initial intervention, two groups of dietitians were involved in a community of practice over the period of 2013 and 2014. Each community of practice lasted approximately 12 months and commenced with a face-to

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face-workshop to facilitate relationship building among participants to support the establishment of trust, known to be important for group performance.[28,29] All participants identified as non-Aboriginal people, were working in dietetic roles in Aboriginal health settings and self-nominated to participate in the community of practice. Details of the programmes and their evaluation are provided elsewhere.[31,32] Multiple methods for evaluations were undertaken. Initially, interviews aimed to evaluate participants' experiences of the intervention, its quality and functionality, and support of practice, practice change and workforce retention (qualitative interviews).[33] In addition, in 2019, 5 years after the initial intervention, a follow-up interview study was conducted that aimed to evaluate sustained impact on practice and retention in the field, the reasons underpinning this sustained impact and the contexts in which it was present.[45] Quantitative data collected as part of the initial evaluation were not included as a result of advancements in methods used to assess cultural competency[46] and therefore the inadequacy of the cultural competency assessment originally used. All qualitative interview data was pooled to inform this realist analysis.

Participants of the community of practice involved in previous evaluation studies were contacted by the investigators and consent sought to use previous interview data. Of the 17 individuals who participated across the two community of practice, 16 consented to include their data, resulting in 29 interviews being included in the realist synthesis (Tables 1 and 2).

TABLE 1 Details of interviews conducted over the three time periods

Participant number	Interview Year		
	2013	2014	2019
1	x		
2	x		
3	x	x	x
4	x	x	x
5	x		
6	x	x	x
7		x	x
8		x	x
9		x	x
10		x	
11		x	x
12		x	x
13		x	
14		x	x
15		x	x
16			x
Total	6	12	11

Data analysis

A realist analysis of 29 qualitative interviews was conducted to examine the outcomes (short-term/long-term) and for whom or in what contexts these outcomes occurred, as well as under what circumstances, and how and why (mechanisms). The interviews from the two community of practices previously analysed [33] together with the mid-range theory of communities of practice as conceived and developed by Lave and Wenger,[34] Wenger[35,38] and others,[36] informed the development of the initial of programme theory for the realist evaluation. One investigator (MC) independent of the initial research drafted the initial programme theory and presented it to the other investigators for consideration, given their intricate understanding of the intervention, and revised after feedback.

The following propositions were developed as the programme theory:

- Where participants have shared experience and shared experience of ‘not knowing’ and conflictedness/incongruence/dissonance/discomfort (C), the community of practice (I) provides a safe place that, through trust, supports vulnerability and sharing of aspects of practice openly and without judgement (M) that fosters personal and professional reflection and growth (O).
- Where participants share experiences (C), the community of practice (I) provides a forum for understanding, valuing, validating and accepting (M) that supports more effective interaction between professionals through understanding and better communication and relationship building (O).
- Where participants lack confidence (C), the community of practice (I) promotes validation and empowerment/confidence to adopt new approaches and implement new practice and strategies (M) to improve practice (O).
- Where participants experience isolation in practice (C), the community of practice (I) creates/facilitates/encourages feelings of connectedness and provides social support networks that facilitate sharing and collaboration (O) to support learning (tacit, implicit and self-knowledge) and an increase of knowledge and skills (O) and that also reduce burden/workload and feelings of isolation (O), which in turn can improve career satisfaction and job retention (O).

The programme theory was then used to guide data extraction and synthesis, which in turn were used to further refine the theory. This process involved re-coding data from all 29 interviews with the assistance of Nvivo,

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TABLE 2 Initial programme theory and revised programme theory

Initial programme theory	Modified programme theory	Key changes
Where participants have shared experience and shared experience of 'not knowing' and conflictedness/incongruence/dissonance/discomfort (C), the community of practice (I) provides a safe place that, through trust, supports vulnerability and sharing of aspects of practice openly and without judgement (M) which fosters personal and professional reflection and growth (O)	When participants recognise that working in Aboriginal and Torres Strait Islander health requires multiple ways of being and working (C) the community of practice (I) fosters relationships that form the foundation of an empathetic environment (M) to navigate the various tasks of becoming a more responsive health professional working in Aboriginal and Torres Strait Islander Health (O)	The original context of 'not knowing' was distilled and refocused to recognise the importance of participants' *acknowledgement of the validity* of different knowledge systems and different ways of working.The original mechanism was refined to more succinctly describe the resource and reasoning contributing to the outcome.The original outcome was refined to more accurately describe the outcome to be more than just personal and professional reflection and growth but actually a more responsive professional
Where participants share experiences (C) the community of practice (I) provides a forum for understanding, valuing, validating and accepting (M) which supports more effective interaction between professionals through understanding and better communication and relationship building (O)	When participants who are committed and open to improving their practice in Aboriginal and Torres Strait Islander health (C) and take part in the community of practice (I), they feel supported and guided to be reflexive by facilitators (M) becoming self-aware, insightful, and more confident in themselves (O)	Refocus of this context to include the importance of committed *and open participants*.Shift from specific and outward focussed outcomes to general inward-focussed outcome
Where participants lack confidence (C) the community of practice (I) promotes validation and empowerment/confidence to adopt new approaches and implement new practice and strategies (M) to improve practice (O)	When skilled facilitators work with committed participants with varied experience and roles (C) the sharing, reflexivity, feedback and support offered (M) shifts consciousness to their own practice to be able to manoeuvre in intercultural spaces and advocate through speaking 'with and not for' (O)	Change in focus of this outcome from general 'improve practice' to more specifically what this improved practice might look like – a move from being directive to becoming health professionals who respond to and work with Aboriginal and Torres Strait Islander communities a shift from 'for' to 'with'
Where participants experience isolation in practice (C) the community of practice (I) creates/facilitates/encourages feelings of connectedness and provides social support networks that facilitate sharing and collaboration (O) that supports learning (tacit, implicit and self-knowledge) and increase of knowledge and skills (O), and which reduce burden/workload and feelings of isolation (O) which in turn can improve career satisfaction and job retention (O)	Where participants with varied experience and roles share the lived experience of working in Aboriginal and Torres Strait Islander health (C) the community of practice (I) promotes connection through feelings of understanding and being understood through sharing, feedback and support (M) which contributes to their commitment to remain working in Aboriginal and Torres Strait Islander health	Broadening of this context to encompass *all* workers in Aboriginal and Torres Strait Islander Health and the outcome of commitment to working in and advocating for Aboriginal and Torres Strait Islander health plus more deep description of the outcome over and above retention and satisfaction
	When participants with varied experience and roles (C) share, feedback, support, and collaborate in the community of practice they can see the value of and gain confidence in new perspectives, skills and practices (M) which they take back to their communities, workplaces, colleagues and students, and integrate into their practice (O)	New CMOC

Abbreviations: C, context; I, intervention; M, mechanism; O, outcome.

v12 2018 (QSR International) by one investigator (MC) who was familiar with realist approaches yet independent of the initial research. Initially, a deductive approach to coding was employed where individual contexts (C), mechanisms (M) and outcomes (O) derived from the initial programme theory were identified in the data, a process that also helped familiarise the analyst with the interviews. The code (e.g., particular context) was a label given to a section of text. After the deductive approach was completed, an inductive approach was employed where contexts, mechanisms and outcomes not identified in the programme theory were also coded by the same investigator and added to the initial coding framework. The codes were then compared with the mid-range theory at this point with differences noted and codes clarified based on this theory.

Data were further consolidated by a process of choosing an outcome of interest and then identifying

the mechanism/s most often associated with this outcome to form a MO dyad,[47,48] a process repeated until all outcomes were correlated with mechanisms. This formation of dyads was guided by our programme theory (e.g., that through shared repertoire learning occurs) and, again, attention was given to any mechanisms and outcomes not identified in the original theory. In addition, specific contexts associated with specific mechanisms were also identified to form CM dyads (e.g., shared understandings).[47,48] Finally, patterns of specific contexts or outcomes linked to these dyads were identified and compiled into six draft CMO configurations (CMOCs) for further refining.[47,48]

As with other realist research, to assist with the validation of emerging findings,[49–51] the six draft configurations were presented to stakeholders, in this case all investigators, including three who were insider researchers. At a series of meetings and through personal reflections and collaboration, these draft CMOCs were compared with the initial programme theory. Relationships with the programme theory were discussed, interpretations shared, differences noted and debated based on realist methods (e.g., empathic environment as a context or mechanism or both), and conceptualisations re-worked and distilled until final CMO configurations were agreed. The members of the research team who were insiders as a result of their participation in earlier community of practices (AW, CP and RD),[52] along with the Aboriginal (Waljen) researcher who brought an outsider perspective as a result of not being involved in earlier community of practices (TM), reflected on their own experiences, worldviews, the data and its interpretation by the independent investigator (MC), and all investigators engaged in reflexive discussions to finalise the theories by consensus.

RESULTS

The 16 participants included dietitians with between 1 and 20 years of work practice (not necessarily in the Aboriginal and Torres Strait Islander context) who worked across a range of different Aboriginal and Torres Strait Islander health settings (including direct patient care ($n = 11$), population health/policy ($n = 1$) and academia ($n = 4$).

The four initial programme theories were refined, expanded and revised into six revised CMOCs. None of the initial theories were refuted in the data.

'Becoming' responsive health professionals

When participants recognise that working in Aboriginal and Torres Strait Islander health requires multiple ways of being and working (C), the community of practice fosters relationships that form the foundation of an empathetic environment (M) to navigate the various tasks of becoming a more responsive health professional working in Aboriginal and Torres Strait Islander Health (O).

The common experience of working in Aboriginal and Torres Strait Islander health connected participants in the community of practice and is the foundation of an environment for being understood and understanding. This shared 'knowing' provided a supportive environment that facilitated reflexive practice by encouraging and supporting participants to both articulate their vulnerability and explore new ways of practise which are client and culture-centred.

> There was an, very early on, ability for the group to put something – for anybody to say something – that really put, made them quite vulnerable, and that consistently the group was open and holding of that person, and would share how they resonated with those feelings or had had the same experience, … That person didn't feel like they wanted to describe all of that, and I was as a facilitator actually able to say, 'This is a group that actually completely understands what you're saying … We actually know what you're saying, you don't have to explain that. You can just keep going with that conversation (Participant #7)

Supporting and guiding reflexivity

When participants who are committed and open to improving their practice in Aboriginal and Torres Strait Islander health (C) and take part in the community of practice, they feel supported and guided to be reflexive by facilitators (M) becoming self-aware, insightful and more confident in themselves (O).

Facilitators who were experienced both in Aboriginal and Torres Strait Islander health and in facilitation were seen by participants as being instrumental in encouraging an effective level of introspection and reflexivity at the same time as offering support for them to sit with the discomfort of doing so. This developing *self-awareness* and honest self-assessment forms the foundations of maturing emotional intelligence and self-confidence.

> I guess I wanted to start running an exercise programme, and people in the community had requested it, so I guess before I would've just said, 'Yes, let's start an exercise programme. We'll go and do that', but I guess reflective practice has helped me stop and consult some other people, talk to the community, work out what it is they really want, then move on to the next step. Make

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> sure you've got all those plans in place and all the background stuff done before you jump straight into running it. It's been a whole lot more successful than any other programme I've started (Participant #15)

Shifting the lens

When skilled facilitators work with committed participants with varied experience and roles (C), the sharing, reflexivity, feedback and support offered (M) shifts consciousness to their own practice to be able to manoeuvre in intercultural spaces and advocate through speaking 'with and not for' (O).

The breadth and depth of experience shared with the community of practice enables participants to see that there are other ways of being and doing and that there are many voices that need to be listened for and listened to. At the same time, the community of practice supports participants in re-shaping their practices in relation to others' voices – being less directive and becoming health professionals who respond to, and work with, Aboriginal and Torres Strait Islander communities.

> I think that, had I not thought about the power of the local voice, I probably would've before maybe overridden that and suggested that another education programme isn't the way to go, but now thinking I'm like, 'That comes from my perspective. If the people in the community, and especially the elders, if that's what they want for their women, then I need to support that', rather than putting my own white professional judgement on the situation (Participant #16)

Fostering commitment to Aboriginal and Torres Strait Islander health

Where participants with varied experience and roles share the lived experience of working in Aboriginal and Torres Strait Islander health (C), the community of practice promotes connection through feelings of understanding and being understood through sharing, feedback and support (M), which contributes to their commitment to remain working in Aboriginal and Torres Strait Islander health (O).

For many participants, the common experiences of working in Aboriginal and Torres Strait Islander health expressed through the community of practice reassured them that their experiences in Aboriginal and Torres Strait Islander Health were shared, valued and valuable. Being validated and feeling connected and supported helps many see their working in and advocacy for Aboriginal and Torres Strait Islander health as being important.

> I think that community of practice fosters leadership. I think community of practice fosters optimism and also passion and reassurance so people stay in that role (Participant #7)

For many participants, the storytelling and exchanging of experiences of the community of practice helped them realise that they were not alone in their circumstances and that many experience challenges at times. The experience and wisdom proffered in the community of practice along with encouragement and feedback contribute to participants feeling supported and able to remain working in Aboriginal and Torres Strait Islander health.

> … I just needed someone to say it's okay, because [she] sat down with me and she said 'no, it's all right, what's going on' and it's really hard to explain the situation, whereas she'd heard it happen before. And then I told the group at the next meeting but if it wasn't for being there and hearing what other people are doing and sitting down alone with [her] and then explaining it further probably at the next [inaudible] I definitely wouldn't have stayed here (Participant #4)

Contributing to skills and practices that can be shared

When participants with varied experience and roles (C) share, feedback, support and collaborate in the community of practice, they can see the value of and gain confidence in new perspectives, skills and practices (M), which they take back to their communities, workplaces, colleagues and students, and integrate into their practice (O).

Not only did the community of practice support individual introspection and reflexivity, but also it involved the learning of new skills and acquiring of new resources and ideas to be shared elsewhere. Furthermore, new relationships, networks and collaborations all contributed to the proliferation of influence of the community of practice.

> That reflection tool was really good. I used that in our clinical supervision back with our dietitians here and we all used it and then came back the following fortnight and we used that tool to let our frustration, like if anyone had any frustrations … we all worked through the tool for just that situation and worked out the positives and the negatives and how it could be done better

so, yeah, we all found that tool really, really positive (Participant #1)

DISCUSSION

Using a realist approach, the present study aimed to understand how a community of practice for dietitians working in Aboriginal and Torres Strait Islander health settings achieved its outcomes, as well as under what circumstances. The evaluation found that a range of outcomes (responsive health professionals, ability to manoeuvre in intercultural spaces, retention in this area of practice, increased confidence) were possible in contexts where participants were committed, open and willing to share and were activated by being supported and guided through reflexive practice, peer feedback and being understood. Engaging in reflexive practice and peer feedback with people who understand your work experiences (empathy), where new perspectives and practices are valued, appeared to be critical for supporting achievement of outcomes. These findings provide key insights into the key contextual factors of, commitment to engaging in workforce development initiatives and being willing to share, which will assist in translating this workforce development initiative to other health workforces, and also provide new insights into previous theories on communities of practice.[35]

The profound impact of peer support on health professionals working in Aboriginal and Torres Strait Islander health was clear in different ways in the present study. Initially, it was the common experience of working in Aboriginal and Torres Strait Islander health that united the participants and, subsequently, this shared place of understanding allowed for a connection around deeper issues. This included the acknowledgement that working effectively in Aboriginal and Torres Strait Islander health requires multiple ways of being and working, which supports the existing literature.[33,53,54] The multiple worldviews that health professionals must engage with when working ethically in Aboriginal and Torres Strait Islander health, especially the interface of western and Aboriginal and Torres Strait Islander knowledge systems[55,56] and Aboriginal and Torres Strait Islander understandings of health and wellbeing, has been recognised previously.[57] Our study provides further evidence that dietitians who engage with Aboriginal and Torres Strait Islander standpoints, worldviews and epistemologies, as well as navigate through the tensions of bringing together knowledge systems in their practice, may experience better job satisfaction and have greater impacts.[18,54] This is important given the established burnout risk and high staff turnover recognised with health professionals working in Aboriginal and Torres Strait Islander health, and also in rural and remote health settings.[58]

The present study also highlights the specific mechanisms of consciously sharing, reflexivity, feedback and peer support assist health professionals change their practice. This study adds to the literature around reflexivity in Aboriginal and Torres Strait Islander health by highlighting that the presence of a skilled facilitator supporting this journey of reflexivity enables participants to move through such discomfort and become more self-aware, insightful and confident; however, it might be challenging to engage because it can be an uncomfortable experience.[59,60] Our findings build on the Wenger community of practice theory[38] highlighting that it is not merely the people coming together, but also their willingness to share resources and experiences when sharing deep cross-cultural experiences, as well as being committed to advancement, that leads to advancement of practice.

A strength of the present study is the use of realist evaluation in the field of nutrition and dietetics, which is lacking in the discipline.[37] Realist evaluation has been used in the evaluation of public health nutrition interventions[37] and other areas of healthcare, including clinical research translation,[61] healthcare supervision training[62] and medical faculty development.[63] Within this landscape, the present study could be used as an example of how realist evaluation has been used in dietetics and adds to understanding of the important role of context in determining outcomes in health professional practice, which is brought to light with a realist analysis. The positionality of the investigators is a strength of the study. Although the investigators are all academics, our positionality includes multiple worldviews that are brought together, including non-Aboriginal and Torres Strait Islander dietitian-academics (AW, MC, RD and CP) and an Associate Professor of Aboriginal health research who is a Waljen (Aboriginal) Public Health Medicine Physician (TM). Additionally, our insider (RD, AW and CP) and outsider (MC and TM) positions to the original community of practice studies enabled robust dialogues through the research processes. Furthermore, a long-term (5 years) follow-up of interview participants suggests that impacts are maintained. The fact that the interviews were not designed based on realist logic may have prevented the breadth of CMOCs being identified. Another limitation of the present study is that the original community of practice did not involve Aboriginal knowledges and voices. Research is currently being undertaken to identify how this could be achieved.

In conclusion, the present study has identified that a community of practice for non-Indigenous dietitians and nutritionists working in Aboriginal and Torres Strait Islander health settings who were committed and open and willing to share, and supported and guided through reflexive practice, peer feedback and being understood develop confidence, are more responsive health professionals, able to manoeuvre in intercultural spaces and are more likely to stay working in this area. Further research is required to test this model on a much larger scale, with communities of practice inclusive of Aboriginal and

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non-Aboriginal health professionals together, and also across a diverse group of dietitians working in Aboriginal and Torres Strait Islander health.

AUTHOR CONTRIBUTIONS

Annabelle Wilson, Robyn Delbridge and Claire Palermo designed the study. Annabelle Wilson and Robyn Delbridge facilitated and participated in the community of practice. Claire Palermo conducted interviews. Annabelle Wilson, Robyn Delbridge and Claire Palermo conducted original analyses for two other papers. Marian Cornett conducted secondary coding and complete extraction in line with realist methodology. Claire Palermo and Marian Cornett completed data synthesis which was verified by Annabelle Wilson, Robyn Delbridge and Tamara Mackean. Annabelle Wilson, Marian Cornett, Claire Palermo drafted manuscript with significant input and approval from Robyn Delbridge and Tamara Mackean.

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CONFLICT OF INTEREST

The authors declare that there are no conflict of interest.

TRANSPARENCY DECLARATION

The lead author affirms that this manuscript is an honest, accurate and transparent account of the study being reported. The reporting of this work is compliant with RAMESES II reporting standards for realist evaluations. The lead author affirms that no important aspects of the study have been omitted and that any discrepancies from the study as planned have been explained.

ETHICAL STATEMENT

Ethics approval was obtained from the Aboriginal Health Research Ethics Committee of South Australia (04-20-867), Flinders University Social and Behavioural Research Ethics Committee (OH-00248) Monash University Human Research Ethics Committee (21089) and Swinburne University of Technology (20202997-4363).

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