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'DANMM that's good!': evaluating the feasibility and acceptability of the Deadly Aboriginal and Torres Strait Islander Nursing and Midwifery Mentoring (DANMM) Programme across rural, regional and metropolitan NSW–a collaborative study protocol

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ABSTRACT

Introduction This paper will describe the research protocol for the Deadly Aboriginal and Torres Strait Islander Nursing and Midwifery Mentoring (DANMM) Project, which will determine the feasibility and acceptability of a cultural mentoring programme designed for Aboriginal and Torres Strait Islander nurses and midwives across five diverse local health districts in New South Wales, Australia. Government and health agencies highlight the importance of culturally appropriate and safe environments for Aboriginal people. Specifically, New South Wales Health prioritises workforce strategies that support Aboriginal people to enter and stay in the health workforce. However, retaining Aboriginal nurses and midwives remains challenging. The DANMM Project aligns with these local and state-wide health plans and strategies, addressing critical issues of workforce cultural safety and retention.

Methods and analysis A mixed-methods study design will be employed to assess feasibility, acceptability and preliminary efficacy of the DANMM Programme across five publicly funded local health districts in New South Wales, Australia. Adhering to cultural safety, a project cultural governance group will be formed. Quantitative outcome measures include the use of questionnaires (Nursing Workplace Satisfaction Questionnaire, Ganngaleh nga Yagaleh Cultural Safety assessment tool). Resource implications will be measured using the Organisational Commitment and Health Professional Program Readiness Assessment Compass. These will be triangulated with individual and group yarning circles to provide a holistic evaluation of the programme.

Ethics and dissemination The study has ethics approval: Aboriginal Health and Medical Research Council (#2054/23); New South Wales Health Human Research Committees (Greater Western Human Research Committee #2022/ETH01971, Murrumbidgee—site-specific approval, Sydney Local Health District—site-specific approval, Western Sydney Local Health District—site-specific approval and Mid North Coast—site-specific approval); and Charles Sturt University Human Research Committee (#2054/23). Findings will be disseminated through peer-reviewed articles, conferences and through roundtable discussions with key stakeholders.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This study will determine the elements of a culturally safe mentoring programme for Aboriginal and Torres Strait Islander nurses and midwives that contribute to workplace satisfaction.
⇒ This study will investigate best practice in cultural safety for nurses and midwives to optimise workforce development, retention and patient-centred care.
⇒ The study operates under a cultural governance structure. The cultural governance group are the decision-makers on all study aspects.
⇒ To our knowledge, this is the first Australian nursing and midwifery cultural safety mentoring programme upscaled for multiple agency implementation and translation.
⇒ This translational feasibility and acceptability study is limited to the disciplines of nursing and midwifery from one state of Australia with findings unable to be generalised outside of this context.
⇒ Participation in the study is voluntary, which may impact the desired qualitative data saturation and quantitative uptake.

INTRODUCTION

The provision of culturally safe working environments for Aboriginal and Torres Strait Islander nursing and midwifery professionals within the Australian healthcare landscape remains a persistent challenge.[1] Culturally safe working environments in this context

encompass recognising the unique place that Aboriginal and Torres Strait Islander people have within Australian society, ensuring cultural respect of employees and healthcare consumers that is essentially free from racism. Of concern is that there are alarming rates of workforce attrition experienced among Aboriginal and Torres Strait Islander nurses and midwives with low job satisfaction persistently reported among this population.[1–3] At an organisational level, workforce attrition among this population is affecting staff retention and ultimately compromising the delivery of safe and quality healthcare, particularly for Aboriginal and Torres Strait Islander consumers.[4 5]

Given the current landscape, there is a pressing need to meaningfully address cultural safety within Australian healthcare organisations and improve working conditions for Aboriginal nurses and midwives. In response, the *Deadly Aboriginal and Torres Strait Islander Nursing and Midwifery Mentoring* (DANMM) Programme (an Aboriginal Australian-led mentoring programme) aimed at increasing job satisfaction and workplace capability was designed. The term 'deadly' to Aboriginal people means excellent.

Building on pilot data, this study protocol outlines the blueprint for the upscaled translation of the DANMM Programme across five local health districts (LHDs) within the state of New South Wales (NSW), Australia. The current protocol outlines the next steps in the research process outlining the design of a large multisite feasibility and acceptability study. This study is working towards building the evidence base for the implementation of organisational interventions through collaborative and consultative approaches, required when addressing complex organisational workforce challenges.

Background

The process of mentoring is typically explained as a structured relationship between a more experienced individual (mentor) and a less experienced individual (mentee). This relationship is designed to support and guide the mentee through both career advancement and psychological development. Within the domain of workforce strategies directed towards enhancing cultural safety, mentoring programmes are emerging as potential strategies.[6] A systematic scoping review conducted by Jongen *et al* sought to identify cultural competency strategies for the healthcare workforce across Canada, Australia, New Zealand and the USA. Cultural competence in this context was defined broadly as educating and training the health workforce in the requisite and relevant knowledge, attitudes and skills needed to effectively respond to sociocultural issues arising in clinical encounters.[7] This comprehensive review revealed the incorporation of mentoring approaches in 4 of the identified 16 included studies. Of these, only one study was aimed at facilitating individual health practitioner support in the workplace.[8] Interestingly, authors discussed a general lack of interventions directly aimed at addressing issues of racism and practitioner bias and noted a general lack of outcome data assessing behavioural changes resulting from any cultural competency interventions, calling for increased research in this area. Of the few studies available aimed at supporting the organisational retention of Aboriginal and Torres Strait Islander nurses and midwives, mentoring is suggested as an acceptable support strategy at the individual level; however, less is known about organisational readiness, acceptability and feasibility to support workforce retention for Aboriginal and Torres Strait Islander nurses and midwives through culturally specific mentoring programmes.[2 3 9]

Given the scarcity of research in the field and the absence of empirical findings supporting recommendations for health service-wide nursing and midwifery mentoring frameworks,[10] the DANMM Programme was conceptualised and initially implemented as a small-scale pilot project in partnership with one regional hospital in NSW, Australia between 2018 and 2019. The DANMM pilot project evaluated the implementation of a mentoring programme specifically for Aboriginal and Torres Strait Islander nurses and midwives to promote local workforce capacity building and provide culturally safe professional support.[11] Programme evaluation used Aboriginal and Torres Strait Islander people's methods of conversation referred to as 'yarning' (a form of relaxed storytelling that facilitates discussion about a key topic).[10 11] Five themes, including *Motivation, Cultural Safety, Relationships, Learning and Programme factors,* were developed to represent key study findings (as previously published).[11] Taken together, the significance of the findings demonstrated a clear need and desire for mentoring opportunities by participating Aboriginal nurses and midwives and the organisation, while also uncovering the detrimental role that racism and lack of cultural safety has on workplace satisfaction.[11] Of additional importance, findings revealed practical implications for the implementation of organisational mentoring programmes as follows: mentoring programmes need to be accessible for nurses and midwives; need to be implemented and evaluated for sustainability and cost-effectiveness; will have an impact on workplace satisfaction when rich mentoring relationships are facilitated and supported organisationally.[11] For Aboriginal and Torres Strait Islander nurses and midwives to remain within the health workforce, ongoing programmes that acknowledge and cultivate support in a culturally appropriate and safe way can make a difference towards future recruitment and retention.[11]

Australia's health system is a universal, publicly funded healthcare system, meaning that for Australian and New Zealand citizens, public hospital care is free or provided at low cost to the consumer. Furthermore, funding, governance and operation of the healthcare system are through a three-tiered structure involving federal, state and territory and local governments.[12] In NSW, health services are organised by geographical areas into 15 sociodemographically diverse LHDs and each LHD is established with an LHD board that operates the public hospitals and

other institutions within their geographical area.[13] The LHDs are further organised into metropolitan LHDs or regional and rural LHDs.[14]

In terms of Aboriginal and Torres Strait Islander nursing and midwifery workforce demographics, in 2021, Australia had 5037 Aboriginal and Torres Strait Islanders nurses and midwives, constituting a mere 1.3% of the workforce. To achieve population parity requires an additional 5400 Aboriginal and Torres Strait professionals of this demographic, nationally.[15] Workforce data from the state of NSW (the most populated state of Australia) from 2019 reveal that only 1620 Aboriginal nurses and midwives are currently working, accounting for 1% of the overall workforce.[16] This workforce disproportion particularly in NSW highlights a critical need for measures to increase Aboriginal and Torres Strait Islander participation in the nursing and midwifery workforce and for measures that ensure the retention of existing Aboriginal nurses and midwives within NSW public health facilities. A staggering 83% increase in the workforce is projected as required to ensure that Aboriginal healthcare consumers receive culturally safe and quality patient-centred care.[9 17 18]

Given these findings and recognising that mentoring shows promise as an effective method of support for Aboriginal and Torres Strait Islander nurses and midwives, upscaled translation and evaluation of the DANMM Programme are now required. A feasibility and acceptability study has been designed as an essential next step for ensuring the successful integration and sustainable impact of such an initiative. Through such a study, potential challenges can be illuminated, stakeholder engagement and readiness can be assessed, and interventions can be refined to align with the practical nuances of diverse clinical environments. This strategic approach lays the groundwork for informed and effective translational research, fostering the development and implementation of evidence-based strategies to facilitate workforce retention for this population.

THE STUDY

Primary study objectives (organisational feasibility and acceptability)

The primary project outcomes are to evaluate the feasibility and acceptability of the DANMM Programme across five NSW LHDs. Acceptability will be measured using (a) programme attendance and completion rates; (b) a preprogramme and post-programme questionnaire for participants and key stakeholders; and (c) qualitative data (yarning circles/one-on-one interview with mentors and mentees and LHD's key leadership stakeholders, resource implication and early measures of impact). Feasibility will be measured using detailed process data including the number and characteristics of each participant type (mentor/mentee) participating in the programme per LHD.

Study aims

This study aims to assess the feasibility, acceptability and resource implications of implementing DANMM across five LHDs in NSW. Research questions are designed to measure the feasibility and acceptability of the DANMM Programme. We will measure early indicators of impact through the following questions:

- Is the DANMM Programme feasible to implement across the LHDs?
- Is DANMM acceptable to nurses, midwives and key leaders?
- What are the resource implications of administered DANMM across five LHDs?
- Is participation in DANMM associated with changes in workforce satisfaction, retention and experience of cultural safety?

METHODS AND ANALYSIS

Patient and public involvement

Participants will not be directly involved in the design of the study. However, members of the cultural governance group are recognised community members and will guide decision-making across the project.

Study design

Building up from the pilot project, the current study has been designed as a non-experimental, multicentre feasibility and acceptability study. Evaluation of feasibility and acceptability will be conducted through both qualitative and quantitative methodological techniques. This type of approach has proven to be effective in evaluating health service programmes elsewhere.[19] In addition, a cultural governance group will be established to provide culturally appropriate guidance with the components of the intervention design and research being conducted. Cultural governance for this project is central to Aboriginal and Torres Strait Islander self-determination and leadership, to provide accountability mechanisms by which the host research organisations and research team aim to meet the principles, expectations, priorities and values of the governance stakeholders.[20]

Underpinning governing philosophy

A mixed-methods pilot feasibility and acceptability study will be employed adhering to the philosophical positioning of the Ngaa-bi-nya evaluation framework.[21] The project will be underpinned by Aboriginal ways of being, knowing and doing, which seek to acknowledge the historical, present and ongoing impact of Western colonisation on Aboriginal peoples, cultures and lands. This includes challenging and resisting dominant epistemologies and methodologies, and privileging Aboriginal perspectives, experiences and knowledge systems. The Ngaa-bi-nya Aboriginal and Torres Strait Islander programme evaluation framework will be used to evaluate the programme. The framework has four domains: (1) landscapes (which consider programme/service, sociocultural, historical and policy environments); (2) resources (the human,

material, non-material, in-kind resources and informal economies and relationships that support Aboriginal and Torres Strait Islander programmes, as well as the usual physical and financial resources); (3) ways of working (identify the delivery of programmes and the types of activities, relationships, frameworks, principles and accountability mechanisms that support the delivery of the programme, with a key focus on culturally safe holistic processes); and (4) learning (critical self-reflection is a key aspect of this domain; reflection needs to identify the progress made, which includes empowerment, attitude shifts, relationship strengthening and the key critical factor of self-determination).[21] It signifies the definition of Aboriginal health which is a whole-of-life perspective. The principles that underpin the Ngaa-bi-nya evaluation framework include, reciprocity, respect, equality, responsibility, survival and protection, and spirit and integrity which are the key principles in the Australian Institute of Aboriginal and Torres Strait Islander Studies Code of Ethics for Aboriginal and Torres Strait Islander Research, and privileges, priorities, perspectives and voices.[22]

Project governance structure

This project is premised and framed from Aboriginal and Torres Strait Islander people's perspectives in both design and implementation.[21] Key stakeholders, both internal to NSW Health and external agencies such as the SAX Institute and Riverina Murray Regional Alliance, have been integral to the design of the project. This has ensured that the design was responsive to community needs. Consultation is ongoing and therefore, the governance of the project is reflective of this. A strong governance structure exists for this project and involves four key elements: ethical governance, cultural governance group, district leadership team and a research steering committee (figure 1).

The project lead (Aboriginal role) will be involved in all facets of the governance. Implementation and evaluation of the proposed intervention have been ratified by key members of the district leadership team and cultural governance group. The project lead (Aboriginal role) will be involved in all facets of the governance framework to ensure that communication is coordinated, translated and enacted.

Figure 1 Project governance structure.

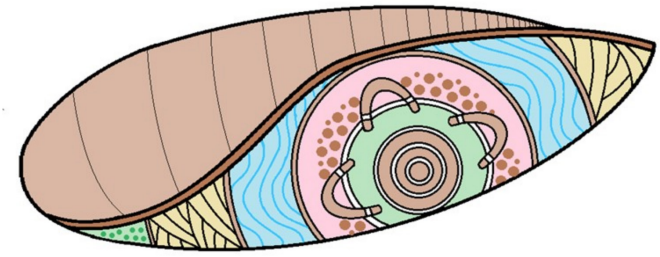

Figure 2 Deadly Aboriginal and Torres Strait Islander Nursing and Midwifery Mentoring Programme logo.

The cultural governance group will be Aboriginal led and formed from current members of local peak organisations with whom we have existing networks and who have formally supported the project. The cultural governance group will guide decision-making across the project. With representation across the five LHDs and across key translational partners, it will share communication, leadership and overall governance of the project across the duration of the project. Darren Wighton from Yulatji Consulting a Wiradjuri artist was chosen to create a logo to represent the DANMM Project, and this has been endorsed and approved by the cultural governance group (figure 2).

The district leadership team will guide the procedural and translational outcomes of the project. This team will ensure that the coordination of the project aligns with NSW Health strategy and is translatable into the current NSW structures.

All progress (development, implementation, inclusive of ethical governance—evaluation and outcomes) will be reported to both the cultural governance group and district leadership team.

The research team (comprising representation from each area health service, industry bodies and universities) will be responsible for the overall implementation of the project and the evaluation.

Study setting

For the current study, five LHDs will be approached to participate. These LHDs will be drawn from both metropolitan and regional areas to ensure geographical diversity as follows: (1) Murrumbidgee LHD (regional); (2) Mid North Coast LHD (regional); (3) Western LHD (remote); (4) Sydney LHD (metropolitan); (5) Western Sydney LHD (metropolitan) (figure 3). Collectively, there are 323 Aboriginal and Torres Strait Islander nurses and midwives employed within these LHDs. These LHDs were purposively chosen for their geographical diversity such as metropolitan, inner regional, rural and remote, gaining a diverse cross-section.

Figure 3 New South Wales (NSW) local health districts.

Sample

The sample being recruited for the current study involves the participation of multiple stakeholders as follows:

LHD leaders: identified or nominated leaders by each LHD. As an example, may be nurse managers, Aboriginal workforce representative or the chief executive.

Mentors: all Aboriginal nurses and midwives are eligible to express an interest in participating as a mentor. Given the workforce shortages previously discussed, nurses and midwives who are at least 5 years postgraduate, in a positional leadership role (in-charge nurse/midwife through to director of nursing) employed at a minimum of 0.5 FTE (full-time equivalent), have completed the online programme and in agreement with a mentee are eligible to participate as a mentor.

Mentees: all Aboriginal nurses and midwives are eligible to express an interest in participating as a mentee.

Sample size

Feasibility and acceptability studies are in general not designed to test for statistical significance of intervention effectiveness, largely attributable to small sample sizes, preventing any inferences to be made about the effectiveness of an intervention. This however does not prevent the reporting and analysis of study outcomes and importantly provides information about the estimated treatment effect that can be used to inform sample size calculations for the larger study.

All nurses and midwives across the five LHDs will be invited to participate in the programme. This study is funded to offer mentor/mentee roles to 150 participants in total. Importantly, representation will be offered to Aboriginal mentees/mentors. Due to the limited number of Aboriginal nurses and midwives in senior roles, non-Indigenous mentors who are senior leaders will have capacity to act as a mentor only. If the mentee identifies a non-Indigenous mentor, the mentor will need to complete the online self-paced foundational learning package prior to becoming a mentor.

Given the online nature of the programme, we anticipate a minimum of 100 (across the participating LHDs) Aboriginal nurses and midwives will be involved in the mentorship component and 50 non-Indigenous nurses will participate as mentors (75 mentees and 75 mentors). Participants may choose to undertake the training and not choose to participate as a mentor/mentee. Seeing what people choose to take part in and which aspects they find most valuable will be important learning to inform feasibility. In addition, key stakeholder feedback will be sought through both qualitative and quantitative methods.

Eligibility criterion

All Aboriginal nurses and midwives employed across the five LHDs will be eligible to participate in the mentoring component (either as a mentee or mentor). All nurses and midwives who are at least 5 years postgraduate, in a positional leadership role (in-charge nurse/midwife through to director of nursing) and employed at a minimum of 0.5 FTE and have completed the online programme are eligible to participate as a mentor.

Study intervention

Initial testing of the small-scale pilot was restricted to one LHD and the evaluation was only a descriptive post-programme investigation. In the funded DANMM Programme, the project will build on the pilot.[11] Specifically, the programme will involve an online self-paced foundational learning package. The package will guide mentors/mentees through four discrete modules. These modules include the elements of mentorship, culture and cultural safety, race and racism and the future of the nursing workforce. At the conclusion of the online learning package, mentors/mentees will express an interest in an ongoing mentorship agreement for 10 months' duration. The project lead will work with each mentor/mentee to find a suitable match. Mentees/mentors will have the ongoing support of the project lead but will be encouraged to identify mutually agreeable mentorship goals. Each participant will be provided with a welcome pack, which identifies programme specifics and troubleshooting pathways in the event of a breakdown in the mentorship arrangement. The project lead will facilitate an ongoing community of practice which is aimed to

increase access, sustainability and overall support. Topics of interest and education will be identified by participants and opportunities for community elders to engage with the group will be facilitated by the project lead (refer to online supplemental file 1).

Importantly, the programme has committed partners across five LHDs, capturing both metropolitan and rural and remote LHDs in NSW that will enable the team to better understand the translation of the DANMM Programme (rather than delivery in one LHD).

Study design

The utilisation of both qualitative and quantitative data collection methods will provide a comprehensive understanding of the feasibility and acceptability of the DANMM Programme's translation and implementation.

Qualitative data will enrich the quantitative indicators by offering insights into the nuances of the DANMM Programme's implementation. Through qualitative inquiry, we aim to capture a detailed narrative of how the mentoring programme was executed in diverse contexts, accounting for potential contextual factors that may influence the attainment of the anticipated programme outcomes for both current and future participants. By employing qualitative methods, we seek to uncover underlying factors that might contribute to the success or challenges of translation of the programme in various LHDs. This depth of understanding will be crucial in interpreting the quantitative data, allowing us to discern not only what works, but also why it works or why it may not work under specific circumstances. Additionally, qualitative findings will enable us to account for unexpected benefits that may emerge from the DANMM Programme. The study is funded for implementation to the end of 2024.

Quantitative methods

The study will use three primary outcome measures: two as measures of individual change and one as a measure of organisational change. The Nursing Workplace Satisfaction Questionnaire (NWSQ)[23] will assess individual participants' overall workplace satisfaction preprogramme and post-programme experience. This validated tool, which has 17 questions, will measure intrinsic, extrinsic and relation to job satisfaction via a Likert scale. The 2021 NSW People Matters Employee Survey will provide comparative contextual data to assist interpretation of baseline and follow-up measures on the NWSQ. The NSW People Matters Employee Survey is an annual survey of staff in all NSW government agencies. Specific questions in NSW People Matters Employee Survey address issues and concepts also addressed in the NWSQ.

Second, the Ganngaleh nga Yagaleh (GY) Cultural Safety assessment tool, a validated First Nations-developed tool,[24] will be used to collect data that explore individual participants' perception of the development of cultural capabilities. This tool has 41 questions and will be administered before and after the online mentoring training programme only. The tool will measure the shift of participants' overall cultural capability.[24]

Finally, the Organisational Commitment and Health Professional Program Readiness Assessment Compass (OCHPPRAC),[25] a validated organisational self-assessment tool, will be used to collect data from key leaders at each participating organisation. This tool has 14 questions via a Likert scale and provides insight into the organisational factors that influence cultural capability in participating LHDs. The OCHPPRAC through pre/post self-assessment will identify the level of leadership and commitment across the whole organisation including key enablers/barriers and overall readiness.

These three tools will be complemented by collection of demographic information about participants (such as age, sex and years of experience), and information about the type and quantity of their participation (such as number of sessions attended, programme completion, use of programme resources and applications, and participation in the programme community of practice).

Quantitative analysis

Characteristics of the participants and their degree of participation will be examined using standard descriptive statistics as appropriate for continuous (eg, age, years of experience) or categorical (eg, gender) variables. The distribution of quantitative outcome measures will be examined using frequency histograms, skewness and kurtosis measures, and the Shapiro-Wilk test. Transformation of skewed variables, or collapsing into categorical variables, will be undertaken if required for analysis.

Changes in individual participant measures (NWSQ and GY Cultural Safety assessment tool) will be assessed using a single group, repeated measures (pretest and post-test) design. The final choice of statistical technique will be made after examination of measure distributions: repeated measures t-tests will be employed if normality assumptions are met, Wilcoxon rank-sum tests if using non-normally distributed continuous data or multilevel ordinal logistic regression if categorical outcome values are required.

The primary analysis will examine for change in total NWSQ and GY Cultural Safety assessment tool scores. Secondary analyses will examine change in subscale scores and subgroup differences. Significance testing of subscale scores will include Bonferroni adjustment for multiple comparisons. Statistical analysis will be conducted in SPSS (V.27) and Stata. We are seeking a minimum sample size of 17% of eligible participants.

Changes in organisational rating on the OCHPPRAC will be assessed by comparing the proportion of criteria rated as fully met at pre-rating and post-rating periods. The choice of repeated measures (paired sample t-test) or difference in proportions (X^2) will be finalised after consideration of sample size and distributions.

NSW People Matters Employee Survey data will be examined by (1) identifying questions from NSW People Matters Employee Survey data which match or align

with individual questions in the NWSQ; (2) calculating an approximate crosswalk from matched NSW People Matters Employee Survey data subscale scores to NSW People Matters Employee Survey data total scores; and (3) describing the approximate NSW People Matters Employee Survey data score distributions that might be expected based on those NWSQ questions. The imprecision of this approach is recognised, but it will allow broad evaluation of whether participants have baseline levels of satisfaction which may be like, higher or lower than other nurses within the same LHDs. This will provide context to interpretation of results. Both organisational measures (NSW People Matters Employee Survey data and OCHP-PRAC) will be tested as inputs to multilevel ordinal logistic regression if individual categorical outcomes are examined.

Qualitative methods

Qualitative data from yarning circles and interviews will privilege the voices of Aboriginal mentees and will complement quantitative survey data. Qualitative data will seek to provide in-depth findings on participants' programme experiences and LHD key leadership stakeholders.

Through the philosophical framework of van Manen,[26] who focuses on lived experiences, and coupled with the evaluation framework of Williams,[21] this project aims to comprehensively evaluate programme experiences and how they relate to organisational factors. Using the Ngaabin-nya framework, it will determine how the programme translates for other LHDs. Key points of the research process community consultation will occur through a steering committee.

Importantly, this methodology recognises that nature of interpretation with the pre-understanding of the researchers being imperative to the design.[27] In this design, the methodology requires the researchers to adopt a rigorous reflective process.[26] For this research, this will involve regular team meetings tracking decision-making, thoughts and adding to the overall openness and reflective process of the research design.[27] Interpretative phenomenology works particularly well with Aboriginal participants as it privileges voice and world views that enable genuine communication of experiences of mentors/mentees and key stakeholders. Methods will include yarning[24] in up to 10 focus groups and 50 individual interviews to seek meaning from experiences. Yarning is a term used by Aboriginal people to mean a conversation or dialogue between Aboriginal people. Yarning in the context of research has been described as 'an informal and relaxed discussion' that requires the researcher to develop and build a relationship that is accountable to Indigenous people participating in the research.[28] Yarning is a well-known relaxed form of communication/storytelling with Aboriginal people and is used in everyday interactions with other Aboriginal people. It is the way we make sense of our lived experience.[28] Yarning helps facilitate in-depth discussions that result in thick description. While this may also be common with other qualitative data collection methods, yarning offers Indigenous people a more relaxed approach whereby they can talk freely about their experiences.[10]

Aligning with hermeneutic phenomenology, participants will be recruited as close to the experience as possible. Aligning with qualitative research principles, data saturation will be identified when no new knowledge is generated,[29] or there are no other consenting and eligible participants. The interview questions will explore programme experiences that enable insight into the intricacies of the mentoring programme and how the programme best supported participants and impacted their work experiences.

Qualitative data analysis

Individual and group yarning sessions will be led by a designated Aboriginal research assistant and recorded using the Microsoft Teams platform. When voice recordings are transcribed, any potentially identifiable data will be removed (ie, locations, names). Pseudonyms will be used in all qualitative data. During focus group yarns, participants will be asked not to share information about the involvement of others in the research (refer to online supplemental file 2). Confidentiality of focus group yarns will be encouraged, but it cannot be guaranteed by the researchers given the nature of such groups. Participants will have the opportunity to review each answer prior to formally submitting the survey for analysis. They will have 14 days to review the transcript and confirm participation or elect to withdraw from the qualitative component of the study. Interviews will be sent to an external company for transcribing.

All interviews will be coded in NVivo for analysis. Data will be analysed through a deep and rich exploration of the lived experiences of participants.[26] Initially, keywords and phrases will be highlighted by the qualitative researchers. A collaborative research workshop including the research team and the cultural governance group will be convened to triangulate and discuss all data collected. These will then be collaboratively coded to then identify common themes[29] that will describe and interpret how experiences relate to NSW Health workforce capacity and capability domains. Collaborative analysis will ensure that the themes are rigorously interpreted and remain as close to the lived experience of the participant as possible.

Data management and confidentiality

The information will be stored on computer files (survey, de-identified transcripts and analytical results). The information will be kept secure in the following ways: computer files relating to the research will be kept on password-protected computers and servers that can only be accessed by the research team; papers relating to the research will be kept in locked cabinets within the offices; personal identifiers will be replaced with codes within the data ready for analysis. The information will be stored indefinitely after the completion of the project to allow

for the completion of any research papers or conference presentations.

Data will be managed in accordance with participating organisations' Research Data Management Policy. All interview and focus group recordings will be stored electronically in a research data folder on Charles Sturt University's secured shared drive. Transcriptions will be stored electronically as Word documents in the same folder. The research data folder for this project will be accessible to the members of the research team via a secured closed Microsoft Teams shared drive.

ETHICS AND DISSEMINATION

The study has ethics approval from the following: Aboriginal Health and Medical Research Council (#2054/23); NSW Health Human Research Committees (Greater Western Human Research Committee #2022/ETH01971, Murrumbidgee—site-specific approval, Sydney LHD—site-specific approval, Western Sydney LHD—site-specific approval and Mid North Coast—site-specific approval); and Charles Sturt University Human Research Committee (#2054/23). Findings will be disseminated through a combination of peer-reviewed articles, conferences and through roundtable discussions with key stakeholders.

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