



Charles Sturt
University

Step 1 towards “A Centre of Research Excellence for Rural Nursing”

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Executive Summary

Teaching and research (TR) nurse academics in the School of Nursing, Paramedicine and Healthcare Sciences (SNPHS) have a history of undertaking a wide range of research activities across the Charles Sturt University (CSU) footprint. Nursing academics are located on six of the CSU campuses, each of which services a different rural area. This creates a unique and complex research environment and provides many opportunities for research connection and collaboration with local communities and a range of industry stakeholders.

In line with CSU's reinvigorated research strategy (CSU, 2022) this project funded by the Faculty of Science and Health aimed to:

- Gain clarity and focus regarding the current state of nurse-led research within the SNPHS;
- Conduct a series of consultations with current research active academics to explore ideas/opportunities/capacity to make an active contribution to the potential development of a Centre for Excellence in Rural Nursing.

Review of data for the period 2020-2022 extracted from CSU staff profiles, the Research Portal, Research Productivity Index, Research Master and individual interviews enabled the identification of the following four key research areas that represent nursing research for SNPHS:

- Keeping rural communities healthy across the lifespan
- Strengthening the rural nursing workforce
- First Nations communities
- Professional education and translation to practice

The report includes a profile of nurse-led research activity, interests, publications, and research funding; a summary of the barriers and enablers to conducting research within the SNPHS as identified by TR nurse academics and perspectives regarding a potential Centre for Excellence in Nursing Research.

Recommendations arising from this project focus on actions that ensure that the proposed centre is led by experienced researchers and all research activities are informed by the needs and priorities of the rural communities. All research activities undertaken need to include the development of actionable recommendations and policies.

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Thank-you to each of the TR nursing academics who generously gave of their time to be interviewed and to share their expertise, experiences and perspectives.

Background

Introduction

Charles Sturt University's (CSU) research narrative focuses on 'research that helps communities flourish and shapes the world we want to live in' (<https://about.csu.edu.au/research-innovation>). As a rurally located university, this narrative aligns closely with the focus of the 13th OECD Rural Development Policy Conference 'Building sustainable resilient and thriving rural places' held in Ireland (28-30th September 2022) (OECD, 2020) in conjunction with the World Health Organisation. Of relevance to nursing and healthcare researchers was the emphasis given to a focus on the health of rural communities as a 'global imperative' (Koller & Bryce, 2022) (see Appendix 1).

Nationally, the Australian Research Council 2022- 2025 strategy emphasises research excellence that involves interdisciplinary teams to solve some of Australia's most "wicked" and complex health problems (Australian Government & Australian Research Council, 2022). Likewise, the National Health and Medical Research Council (NHMRC) (nd) describes the organisation as 'championing the pursuit of better health outcomes for all Australians'.

The role of nurses as researchers has been highlighted in the Australian context with research considered one of the essential domains of advanced practice for Registered Nurses. Nurse researchers both contribute to and generate evidenced based initiatives that can contribute to improving health outcomes and optimising healthcare delivery (Chief Nursing & Midwifery Officers Australia, 2020). The COVID- 19 pandemic has further highlighted the key role that nurses have in managing and maintaining health systems and health outcomes (Fernandez et al., 2021: James et al., 2021) and leading interdisciplinary research.

Nursing academics/researchers in the School of Nursing, Paramedicine and Healthcare Sciences (SNPHS) have a history of undertaking a wide range of research activities across the CSU footprint. SNPHS nursing academics/researchers living in rural communities are ideally placed to initiate and lead research focusing on the health of rural communities. Each of the CSU campuses service a different rural area providing a unique opportunity for research connection with local communities and industry stakeholders, including Local Health District services, Primary Health Care networks, aged care providers and Not for Profit organisations).

As CSU sharpens the focus on delivering high quality research aligned with the organisation's narrative, activities designed to strengthen and focus research specific to rural nursing have been identified as a priority area for attention, with a potential longer-term goal being to develop a Centre of Excellence for Rural Nursing. As a first step towards the potential Centre of Excellence, the team responsible for this project applied for funding that would support the following activities:

1. Map all current nursing research activities and activities completed within the past 3 years
2. Conduct a series of focus groups/consultations with current research active academics to explore ideas/opportunities/capacity to make an active contribution to the development of the proposed Centre for Excellence in Rural Nursing
3. Identify and support submission of 2-3 papers (FOR codes relevant to nursing) close to completion to Open Access journals to enhance ERA ranking¹.

¹ Expressions of interest were sought for access to this funding. However, time constraints, limited inquiries and difficulty aligning with the requirements for accessing the \$4,000.00 Open Access Publishing Scheme meant this activity was not achieved. (See Appendix 6 for call for EOI).

Methodology

The consultation and mapping process considered the following questions:

1. What are the SNPHS Nursing researchers' current research areas?
2. What are the SNPHS Nursing researchers' evidenced research strengths?
3. What are the barriers and facilitators to conducting research within the SNPHS?
4. What are TR nurse academics' perspectives and recommendations regarding the development of a Centre of Research Excellence for Rural Nursing?

A mixed methods approach was used to identify, collect, analyse and map research activity completed within the previous three years (2020-2022 inclusive). In order to identify TR nurse academics and adjunct appointments, a list was provided by the SNPHS (Appendix 3).

Information about TR nurse academics' research interests, activities and outputs was gathered from staff profiles/webpages, and CSU systems such as Pure, Research Master, and the CSU Research Output (CRO) portal. In the absence of staff webpages, the research portal was accessed to identify, where possible, research information and activity data for adjunct appointments. The retrieved data was entered into an Excel spreadsheet to collate, track and analyse the following information (1) publication output (2) document type (3) journal title (4) journal ranking (5) author affiliations (6) conference presentations (7) project/grant funding (8) other research activity.

During the data collection process, it became apparent that not all staff profiles or CRO webpages were up to date. To avoid missing vital information for the mapping exercise, and to contextualise quantitative data, TR nurse academics were invited to participate in individual online Microsoft Teams™ meetings.

Online Microsoft Teams™ meetings took place across a period of four weeks from November 2022 to December 2022. The mapping activity compiled feedback from the following people²:

1. Level B teaching research x 12
2. Level C teaching research x 4
3. Level D teaching research x 4
4. Level E x 1

² Due to time limitations, Teaching/Research adjunct academics were not extended an invitation to participate in the online meetings.

5. External stakeholders x 2

NVIVO™ was used to analyse qualitative data and assist the Project Team to identify key themes and contextualise quantitative data. To ensure a robust consultation process, some report findings were “fed back” to a portion of participants for comment.

Literature review

Scoping activity approach

Concurrently, the project team undertook a mapping of evidence-based literature related to rural nursing research centres as complementary to the mapping of research activity undertaken by nursing TR academics.

The search strategy was developed in consultation with a CSU librarian. (See Appendix 2 for further details). The search yielded a total of 90 papers. All researchers were involved in screening the title/abstract and full-text screening. COVIDENCE was used as a review management platform, ensuring that all papers were screened by at least two researchers at both title/abstract and full-text review stages. Search terms across databases were sourced from 1990–2022. Title/abstract searches were screened against the inclusion/exclusion criteria (refer to Appendix 2) resulting in 3 papers reaching full-text review.

Findings

The scoping review was designed to map literature related to rural nursing research centers. The findings identified very few published papers. Key themes identified commonality in challenges such as geographical distance (Weinert et al, 2015), lack of research funding (Weinert et al, 2015; Weinert et al, 2008) and combatting disparate rural health outcomes (Weinert et al, 2008). All papers reported that despite the challenges the needs counterweighed challenges (Weinert et al, 2015; Weinert et al, 2008; Bushy, 2004).

Identified papers raised our awareness of the specific personal attributes needed by rural researchers such as perseverance, determination, the ability to work remotely to achieve a common outcome, and the ability to individually lead a research team as necessary and complementary to success (Weinert et al, 2015). Rural nurse researchers should be open to their research theme/foci evolving and aligning with national/international key priority areas (Weinert et al, 2015). In addition, the center should form collaborations both nationally and internationally to build research capacity and be positioned to generate

interdisciplinary research teams (Weinert et al, 2015). This certainly aligns with the CSU Research Narrative (2019) and the Australia Research Council Strategy. Centers should leverage on existing and new networks to better prepare researchers of at all levels skills and capabilities.

Summary of findings

Findings from the exploration of literature have been mapped in the following ways:

Macro (University)

- There is little published research on rural nursing research creating an opportunity for the school to build a research profile with opportunity for grants and publications (Weinert et al, 2015; Weinert et al, 2008; Bushy, 2004).
- Digitisations should be considered important (Weinert et al, 2015).

Meso (Organisational)

- Networks and collaborations are important to rural research centres (Weinert et al, 2015; Weinert et al, 2008; Bushy, 2004).

Micro (Individual)

- Specific attributes support rural nursing researchers' success (Weinert et al, 2015).
- Adaptability in research area is required (Weinert et al, 2015; Weinert et al, 2008; Bushy, 2004).

Nurse-led research activity 2020-2022

Research active academics

One on one meetings with TR nurse academics revealed that several were not currently research active. Participants advised that this was due to a number of reasons including teaching commitments, undertaking PhD or HDR studies, or their primary area of interest and current focus of attention had shifted to teaching rather than research. For some TR nurse academics who were nearing the end of their career and/or approaching retirement their thoughts had turned to succession planning, while others indicated that they lacked opportunities to be engaged in research due to their inability to attract research funding, or difficulties identifying and joining project teams.

It should be noted that the barriers to engagement in research did not preclude TR nurse academics interest and aspiration to undertake research in the future. Indeed, during one-on-one meetings, TR nurse academics described numerous ideas for research projects which were in the scoping or planning phases.

Lastly, the status of a number of adjunct appointments' engagement in research was not able to be ascertained due to the absence of staff profiles or CRO pages.

Research interests

Information about the research interests of TR nurse academics and adjunct appointments was compiled from staff profile web pages, CRO and the one-on-one Teams™ meetings. The findings indicate that the research interests of TR nurse academics are diverse, covering the lifespan from maternal and child health to management of chronic conditions in older people, care of the ageing person, and palliative/end of life care. There is also an emphasis on First Nations health, cultural diversity and inclusivity, regional health equity, and building workforce capacity in rural and regional areas. A key area of research interest is in students' learning experiences within the academic and workplace environments and preparing nurse students for transition to professional practice. However, a growing area of research activity and expertise is in the use of digital technologies, such as virtual/augmented reality, simulation, and app-based technologies for the teaching and education of students, health professionals and consumers.

Following thematic analysis, the research interests were grouped under four themes:

- Healthy rural communities
- Strengthening the rural nursing workforce
- First Nations communities
- Professional education and translation to practice.

Comments and feedback on the four themes were sought from several TR nurse academics, which are summarised below:

- The theme '**Healthy rural communities**' was felt to connote health and did not acknowledge the complex and chronic health issues prevalent in many rural communities; nor does the theme reflect areas such as end of life and palliative care. Respondents also felt it was important to acknowledge that rural communities cover the lifespan, which also reflects the work of TR nurse academics.

It was suggested that this theme be reworded to - ***"Keeping rural communities healthy across the lifespan"***.

- Regarding the theme '**First Nations communities**' - whilst the importance of including First Nations communities as a standalone theme was acknowledged, it was felt that the theme does not capture cultural diversity and inclusivity. It was noted that there are several TR nurse academics actively researching in this field. On the other hand, one person asked whether cultural diversity and inclusivity would fall under the rural workforce theme.
- There were mixed views as to whether digital technologies should be included as a separate theme. One perspective was based on the belief that digital technologies can fit under any theme as a problem solution fit. Alternatively, the immersive, and digital technologies space require a standalone theme; perhaps titled 'digital technology and education'.

Publications

Journal articles (2020-2022)

The search for TR nurse academics and adjunct appointees' journal publications revealed a total of 163 articles³. After duplicates were removed⁴, there were 139 articles published from 2020-2022 inclusive. The number of journal publications increased from 2020 to 2021 and declined slightly from 2021 to 2022 (refer to Appendix 4).

The journals in which articles by TR nurse academics were published are diverse, ranging from general nursing and midwifery journals to journals focusing on research into paediatrics, ageing, mental health, education, and the environment. Other journals' areas of emphasis included the health sciences, health promotion, public health, and general practice. The largest number of articles were published in two publications, 'Contemporary Nurse' and 'Partyline'. This was followed by the 'Australian Nursing & Midwifery Journal', 'International Journal of Healthcare' and 'Issues in Mental Health Nursing'. Appendix 5 provides a list of the journals in which TR nurse academics' articles were most commonly published.

³ This may include publications which a TR nurse academic brought over to CSU upon appointment and may therefore reflect research activity conducted at another tertiary institution.

⁴ Duplicates were those articles co-authored by more than one SNPHS TR nurse academic.

Journal rankings

A high proportion (n=53; 38.1%) of articles were published in Q1 journals, 26.6% in Q2 journals and 11.5% in Q3 journals. Twenty-seven articles (19.4%) were published in journals which were not listed on SJR or CSU journal listings and were therefore considered to be unranked. However, it should be noted that several of these publications, for example 'The Hive' and 'The Lamp' are the official publications of professional nursing organisations – namely the Australian College of Nursing and the NSW Nurses and Midwives' Association respectively; whilst 'Partyline' is the online magazine of the National Rural Alliance. Therefore, whilst these publications may not appear on journal ranking lists, they would reach a large and diverse readership. Appendix 6 provides further information on journal rankings.

Collaborations with internal and external academics

A recurring concern voiced by TR nurse academics during the one-on-one meetings, was the lack of opportunity to collaborate on research projects and uncertainty as to how to form research connections with a range of potential industry partners. Analysis of author affiliations listed on TR nurse academics' published journal articles provided evidence of research collaboration between TR nurse academics within the SNPHS and to a lesser extent, with academics from other CSU Schools and research centres such as the School of Business and the Three Rivers UDRH.

Analysis of author affiliations also revealed that SNPHS TR nurse academics have formed research collaborations with other Australian Universities including the University of Tasmania, Newcastle University, the University of NSW, Western Sydney University, Wollongong University, Flinders University, Federation University, and Monash University. Context provided through meetings with TR nurse academics, indicates that historic research networks formed during previous employment or whilst undertaking HDR qualifications, were able to be maintained even when changing employment or completing HDR education at another tertiary institution.

There was limited evidence of research collaborations between TR nurse academics and local health districts, primary health networks or hospitals. Moreover, research collaboration with international academics/tertiary institutions appears to be confined to a small number of senior TR nurse academics within the SNPHS, which emphasises the critical role played by these more experienced researchers.

However, information about research activities gained during the one-on-one meetings indicates that research connections are being formed with academics and researchers in several countries including the

United States and that work is being undertaken by several TR nurse academics to increase research opportunities with industry in rural and regional areas.

Conference presentations

Analysis of conference presentations listed on CRO pages indicated that TR nurse academics continued to be actively seeking opportunities to communicate their research and share study findings despite the limitations and challenges posed by the advent of the COVID-19 pandemic. Reflecting the limitations imposed on travel during the pandemic, conferences were mostly locally based, or conducted online.

It is also worth noting that in the absence of conference opportunities, TR nurse academics were actively utilising many forms of the media (print, radio, television, web, podcasts) to communicate their research to local communities and beyond. During the 2020-2022 period, there were nearly 130 reported occasions of TR nurse academics engaging with the media to communicate their research or to share their knowledge and expertise in their fields of interest, which would have increased the impact of their work and raised the profile of CSU SNPHS.

Research funding

Information provided by the Office of Research Services and Graduate Studies reveals that between 2020 and 2022 the SNPHS attracted a total of \$423,272 in research funding. Funding sources included NSW Health, Murrumbidgee Local Health District, Western NSW Primary Health Network, MHCH Foundation – Global Rural Nursing Virtual Collaboration Learning Grant, Tresillian Family Care Centres and Parkinson’s NSW.

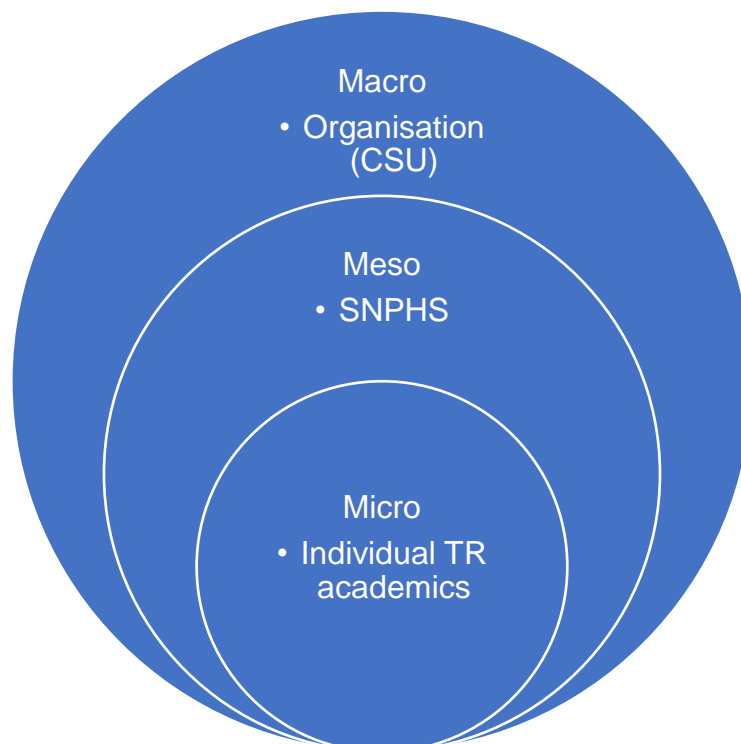
Analysis of research funding applications submitted from 2020 to 2022 with SNPHS as the administrative unit, reveals that TR nurse academics were actively submitting applications to a range of research funding bodies during this period.

Year application submitted

	2020	2021	2022
Successful applications	3	6	3
Unsuccessful applications	7	1	2
Total applications	10	7	5

Barriers and facilitators identified by current teaching/research academics

A micro-meso-macro analytical framework was used to identify and describe SNPHS teaching and research (TR) academics' experiences of and perspectives on the barriers that impede, and the facilitators that enable, engagement with research.



Macro level

Barriers

At the macro level, the historical culture and focus of the organisation as primarily a teaching university, and the perception that the wider University does not acknowledge or value the contributions made by nurse researchers, were the most significant barriers cited by teaching and research (TR) academics.

“My observation is that it has been primarily a teaching university with pockets of research like agriculture that are really mature and well developed. But other areas have primarily been teaching. You know you're meant to do research, but no one's ever been held to account for that. So, it's no one's fault.

It's just the context of the university at the time” (Participant #7)“.

“The University wants us to research. The School wants us to research, yes. But it is the teaching that brings in money and then if you do research then you have to find your own money to do the research”

(Participant #8).

“The university doesn’t value what nursing could do. Research is invisible” (Participant #11).

“We read constantly from our Vice Chancellor about Ag research, and you know grants and opportunities.

So, I would really like that awareness. This is what the school, this is what nursing is doing.

Lift the profile of SNPHS research and more opportunities” (Participant #14).

Other macro level barriers to engaging in research included a lack of support and funding for research, higher degree research (HDR) scholarships and early to mid-career fellowships; limited protected research time; poor communication and collaboration between CSU research centres; and an unsystematic approach to establishing networks and research partnerships between nurse researchers and industry (e.g., Primary Health Networks (PHN), Local Health Districts (LHD), aged care facilities etc.).

“We don't have scholarships available for PhD students. We tend not to get PhD students, and it's only our staff that are doing HDRs” (Participant #20).

“Never underestimate the value of small funds, small institutional grants of five and \$10,000, and they can really like for that small investment you can get some great impact in the outcomes and I think that is that has been missing for me as a teaching research at this particular university and only because I came from a university that did those small funds and really, they actually helped launch my research career”

(Participant #4).

Facilitators

Macro level facilitators to SNPHS TR nurse academics engaging in research included embedding a research enabling culture that infuses research into all teaching and learning activities, and articulates the benefits of the research-learning-teaching nexus; promoting and valuing the importance of nursing research to the University and the wider community; adopting a strategic and structured approach to developing communication links and research partnerships with industry; providing financial support to CSU researchers through internal fellowships and grants; and attracting more HDR students by offering University awards and scholarships.

Meso level

Barriers

Barriers at the meso (SNPHS) level primarily centred on the perception that the School's priority and focus is on teaching, and that research is not afforded the same parity or importance with teaching. This was thought to be reflected in TR nurse academics' teaching workloads, insufficient or no time allocated for research, and limited opportunities to buy out teaching time. In addition, the School's language was felt to be heavily focused on teaching, subject outlines, workplace learning and students' clinical placements, which consequently left little time for research conversations.

"We are really talking heavy teaching here in the School of Nursing, we have huge numbers of students and when you come to your email box it's a nightmare every day and especially if it's WPL workplace learning, all those issues that come, yeah, it's very hard. You come here and say I'll do research and you are just bombarded with all that. I mean we can't complain. This is this is I suppose it's the nature of the job but those research hours, you never see them, you never touch them because they all go for teaching"
(Participant #12).

"Our language right now in the school is all about teaching and subject outlines and problems and clinical placements. And WPL, there is no time for a research conversation. Just to change our language from teaching to research would be a big thing. You need to have people with the language that can inspire. So, I feel that is lacking too" (Participant#8).

Other key impediments to engaging in research as identified by TR nurse academics, particularly early career researchers and HDR students, included limited opportunities to join internal research interest and/or support groups; and poor communication and dissemination of information about research being conducted within the school. Similarly, the process of advertising opportunities to join research teams/projects was felt to be ad hoc and ineffective. These issues were felt to inhibit the development of a SNPHS research profile, and negatively impact collegiality, collaboration, and research capacity building within the School.

"Research is highly competitive and very secretive which impacts collaboration and awareness of what is going on in terms of research within the school" (ID#11).

"Build capacity by working with colleagues and teams. But how do we get to know who does what? I don't know. That's not done well" (ID#17).

“I think CSU has a lot of issues in terms of collaboration. Seems to be quite spasmodic and driven by one person at a time. There is no structure to it” (ID#6).

“I wouldn’t have a clue about research being conducted. I don’t even know if there’s any projects happening in the School and if there are I have for sure not been invited to any of them” (Participant#8).

Another critical barrier cited by SNPHS TR nurse academics included the lack of professors with established research track records which impacts the School’s ability to attract and support large research grants. Other barriers included a paucity of mentors and supervisors; difficulty navigating the disparate CSU intranet sites/resources to locate research relevant information; and missed or untapped opportunities to form research partnerships with industry and utilise CSU’s dispersed geographical advantage to network and collaborate with PHNs and LHDs across NSW.

Facilitators

TR nurse academics suggested several strategies to build research capacity and improve research engagement and drive within the SNPHS. These included fostering a research-oriented culture with a focus on inclusivity and team building; changing the mindset so that research is understood as being ‘part of the job’ in the same way as teaching; identifying research leaders or champions who can inspire, energise, and support staff in their research endeavours and can prioritise research that aligns with the University’s and School’s research priorities and community health needs. Creating a centralised information portal which makes it easier for staff to locate research relevant information, raising TR nurse academics’ awareness of SNPHS research activities through regular research meetings, seminars and using online resources such as creating a SNPHS research webpage.

Micro level

Barriers

At the micro or individual level, barriers to research predominantly pertained to some TR nurse academics lacking confidence in engaging in the research process. This inhibited their ability to approach more experienced researchers for research advice and assistance, discuss ideas for future projects, or locate and express interest in joining internal or external research interest groups, teams, or networks.

Most TR nurse academics indicated that they wanted to be more research active, however heavy teaching workloads consumed most of their time. For early career researchers in particular, an immature research track record and/or working solo, restricted their ability to attract research funding and/or win grants.

Conversely, some TR nurse academics wanted to focus their career on teaching, while others were nearing the end of their careers and were no longer interested in practicing research. Importantly, several TR nurse academics had formed collaborative research relationships with external researchers, universities, and industry both within Australia and overseas. However, engagement with stakeholders appeared to have been established by the efforts of individual TR nurse academics, rather than as a result of a strategic or coordinated approach led by the SNPHS.

“I think some staff get scared about moving into research because they're not sure if they've got the confidence or the level of knowledge. So how do we step them through into a pathway that will give them that confidence to undertake a PhD?” (Participant#20).

“And some of our staff are not interested in doing a PhD, even though the research active. Because they come to their end of their career, and they've been able to get along with the research activity. In that way, rather than actually having to do a PhD, but they're towards their end of their career, they're not going to do a PhD” (Participant#20).

Facilitators

A top-down, bottom-up approach was suggested by TR nurse academics as a way to increase research capacity and capability within the SNPHS. For example, some senior academics were actively encouraging, nurturing, and including staff and students in the research process, which strengthened research training, and fostered collegiality and collaboration. Support and encouragement from mentors and supervisors; improved teaching/research balance; and research skills development through workshops and ‘hands-on’ research experience gained by working on projects or joining teams, could also bolster research activity within the SNPHS.

Building a centre of research excellence for rural nursing: Perspectives

Overall, the idea of building a centre of research excellence for rural nursing was well received by all TR nurse academics interviewed and was seen as a means to building a supportive research culture. For example, a TR academic stated:” there’s *no doubt that we need one*” (Participant #1).

Contextualised with the barriers cited, participants were confident that a centre would provide the required strategy, support, space, and commitment to engage in research:

“We need to claim the space of research to improve health outcomes for people living in regional Australia, and we're not doing that. So, for me that's the piece. We've got research expertise. But we haven't got a lot, but we've got some, we've got a new person coming, we will have no doubt some more recruits coming. We need to be linking across with Rural Health Research Institute. but we need to be able to articulate what we offer cause now we can't” (Participant #7)

TR nurse academics recommended that the centre should have strong governance citing strategic planning that aligns with not only the CSU research narrative but also the Australian Research Council and international discipline related direction. This view was also supported by an external participant who recommended, even in a centre's infancy, the creation of a strong advisory committee citing representation from international and national nurse researchers.

Further to this, it was agreed that the centre should facilitate a strong connection and opportunity to liaise with key industry bodies. This was viewed as a way to build connections and networks that would support the development of research in the school and in the wider profession of nursing:

“It might just be a sort of a webinar or an information session or a sort of a couple hour come and chat with industry. You know, if it's aged care you know, then you might invite them to a CERN meeting or something to just sort of, you know again start internal but then it could grow externally” (Participant #12)

As detailed in the previous section, there appeared to be a strong concern around the ability of current TR nurse academics opportunity to meet, network and liaise with industry. This impeded the ability to collaborate on research projects and grant applications. TR nurse academics believed that nursing research centre would afford researchers with the ability to collaborate on projects and provide a space for industry to connect with the school. It was felt that the centre would also facilitate recruitment opportunities for research only positions.

TR nurse academics were unanimous in agreeing that a research centre would support the school in serving the communities footprints. Rural, regional, and remote health outcomes was seen as an area of strength that is often underutilised in research across Australia. The footprint of CSU would afford the centre a solid foundation in building research capacity and supporting need. TR nurse academics envisioned how the centre would provide education to aspiring researchers:

“Demystifying research would be a huge role that they (the centre) could play and then supporting early career researchers to achieve some research so that the profession itself is not as fearful of undertaking

research. And I know for me research sounded and looked so very scary as a younger clinician, whereas now it doesn't seem that scary or overwhelming. So hopefully to nurture that desire to question and provide support to registered nurses who would be interested in undertaking a research project” (Participant #17).

Raising the profile of the school through collaboration was seen as an appropriate next step in building a research centre. Thoughtfully, one academic believed that the most appropriate way forward would be working together and building a track record:

“The mob that you're working with now have to get some runs on the board, so you need to produce a publication that says what we are, what we need to be. We need to say this is what we can do together. The crew need to come together and have a plan for at least one or two things they're going to get done next year. You know, they might host a regional nursing forum, or they might host a forum on nurses' nursing's contribution to rural health wellbeing. But they need to have us something and some runs on the board to say You're doing something that's worth us giving you more money” (Participant # 4)

Overall, while the draft name of the proposed centre (Centre of Excellence in Nursing Research - CERN) was generally well received. Suggestions were made to extend the foci that would enable a nursing led, multidisciplinary centre. Additional suggestions included: CERN Plus, CERNH (Centre of excellence in rural nursing and health). It is envisioned that the name will evolve as the idea of the centre gains momentum.

Caution is urged however in adopting a name for the potential centre without an extensive search for other organisations that may have the same acronym. Note: CERN already denotes the European Organisation for Nuclear Research <https://home.web.cern.ch/>

Recommendations

The recommendations of this research are informed by the literature review, quantitative and qualitative data, and consultations. These focus on actions that would be needed to ensure that the proposed centre is led by experienced researchers and all research activities are informed by the needs and priorities of the rural communities. All research activities undertaken need to include the development of actionable recommendations and policies.

Macro level (University):

- Develop a clear vision and mission for the centre that aligns with the university's strategic goals and the national research priorities of the Australian Research Council
- Provide the business and development expertise to support the

Meso level (Centre leadership):

- Develop a reference group to inform the development of a research centre and related goals. Membership of the reference group would need to include representatives from patients and their families, community leaders, healthcare providers, public health officials, local organisations, and community members.
- Consult with existing national and international rural research centres, for example:
 - National Centre for Farm Health in Hamilton, Victoria <https://farmerhealth.org.au/>
 - Further consultation with Professor Irena Papadopoulos, Head of the Research Centre for Transcultural Studies in Health <https://cultureandcompassion.com>
 - RHIhub Rural Health Information Hub <https://www.ruralhealthinfo.org/organizations/rural-health-research-centers>
- Develop goals of the potential centre that will maximise existing SNPHS research expertise and address community needs that promote the implementation and evaluation of best practices in contemporary health care delivery and nursing practices.
- Develop partnerships and collaborations with organisations and institutions that serve rural communities.
- Regularly evaluate the progress towards the centre's goals and mission statement.

Micro level (Centre membership):

- Identify and recruit team of experts in rural health research, including health researchers, healthcare professionals and community leaders. This team should have a broad range of expertise in the field of rural health research and be representative of the diverse communities that members are working in.
- Secure funding for the centre (govt. or private foundations). This will be essential for supporting the centre's research and programs.

- Develop and implement research projects, program and initiatives that align with the centre's goals and objectives. This could include studies on the unique healthcare needs of rural communities, effective models of care delivery and strategies to improve rural healthcare professionals.
- Promote the centre and its work to raise awareness and support among stakeholders.

Micro level (developing Centre membership capacity)

Building the research capacity of nursing academics is integral in the realisation of a successful research centre. To achieve this, the following recommendations are suggested:

- Create a culture that values and encourages research – promotes achievements, encourages sharing and self-promotion of research outputs; provide professional development including writing/presentation skills; foster an environment that encourages collaboration and networking.
- Identifying leaders for each research stream will formalise and promote the identified areas of research/strength (*Keeping rural communities healthy across the lifespan; Strengthening the rural nursing workforce; First Nations communities; Professional education and translation to practice*).
 - Encourage membership and provide mentorship in each stream
 - Provide resources (e.g., funding for publication/ attendance to workshops etc.)

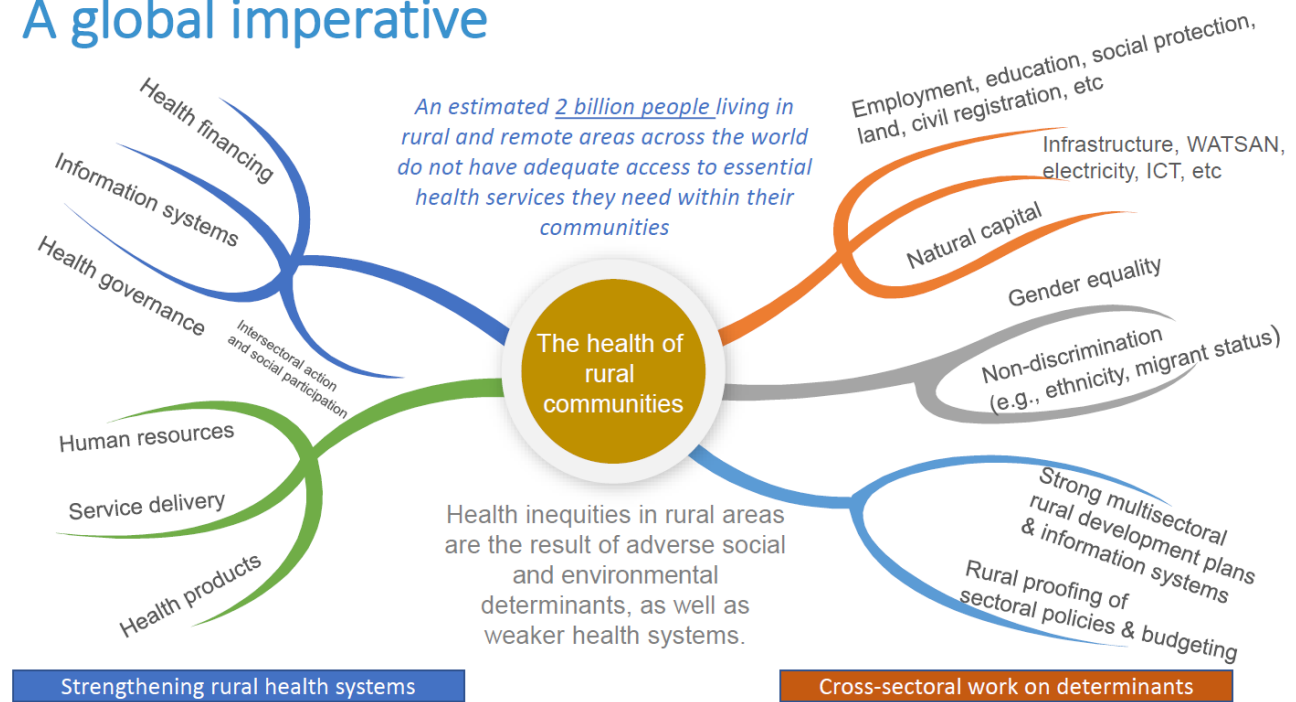
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Appendix 1

A global imperative



Slide 4: Koller, T., & Bryce, B.-A. (2022). *Rural proofing for health* [Introductory presentation]. 13th OECD Rural Development Conference: Building Sustainable, Resilient and Thriving Rural Places, Cavan, Ireland. <https://www.slideshare.net/OECD-regions/1-ruralproofinghealththeadora-swift-koller-bettyann-brycepdf>

Appendix 2

Inclusion and Exclusion Criteria used for Scoping Review

Inclusion	Exclusion
Original research	Full text unavailable
Full text articles available	Focus on disciplines other than nursing
Related to the discipline of nursing	
Related to a Research Centre	
International	
National	

Key words as used for Scoping Review search

Keywords

Rural (nursing) Nursing (research) Research centre
 MH Rural Health Nursing MH Health Services Research Centre*
 Remote MH Research, Nursing Center*
 regional MH Research-based organization
 MH Rural health Nurs* organisation
 rural Centres of excellence
 Centres of research excellence
 Centers of excellence
 (MH "Academic Medical Centers")
 "Institutes of Research Excellence"
 "research excellence"
 "research program"
 "research institute"

Databases searched:

- CINAHL
- EEBSCO Host (Health)
- ProQuest (Nursing and Allied health) databases

Appendix 3

List of TR nurse academics and adjunct appointments at the time of undertaking this project

Teaching/Research Academics - SNPHS		
PhD	Anderson, Judith	Associate Professor
PhD	Bernoeth, Maree Anne	Associate Professor in Nursing, Indigenous Health
PhD	Biles, Jessica Maree	Senior Lecturer in Nursing
PhD	Bramble, Marguerite Dorothy	Associate Professor of Nursing
	Carey, Alicia Jane	Lecturer in Nursing & Midwifery
PhD	Cargill, Shanna Maree	Lecturer in Nursing & Midwifery (on secondment with Sturt Scheme)
PhD	Deravin, Linda	Head of School, School of Nursing, Paramedicine and Healthcare Sciences.
PhD	Dywili, Sophia	Lecturer in Nursing
PhD	Gillan, Pauline Catherine	Senior Lecturer in Nursing
	Gore, Amanda Jane	Lecturer in Nursing
PhD	Grant, Julian	Professor in Nursing
PhD	Griffin, Kristina Margaret	Lecturer in Nursing
PhD	Haydon, Gunilla Cecilia	Lecturer in Nursing
PhD	Irwin, Pauletta Marie	Associate Professor in Nursing
PhD	Jones, Donovan Paul	Senior Lecturer in Nursing and Midwifery
PhD	Jones, Linda Katherine	Associate Professor in Midwifery
PhD	Laver, Sharon Louise	Lecturer in Nursing
	Lawrence, Jayne Maree	Lecturer in Nursing and Midwifery
	Lopez, Alejandra Vasti	Lecturer in Nursing

Teaching/Research Academics - SNPHS

	Mahara, Nicole	Lecturer in Nursing
PhD	Matheson, Annabel Kate	Senior Lecturer in Nursing
PhD	Petrie, Eileen Margaret	Lecturer in Nursing
HScD	Rossiter, Rachel Cathrine	Associate Professor of Nursing
	Speedie, Lisa Joan	Lecturer in Nursing
	Stenson, Sarah Patricia	Lecturer in Nursing
	Wells, Louise	Lecturer in Nursing (currently Course Director)

Adjunct appointments

Alexander, Nathaniel	Adjunct Lecturer
Al-Yateem, Nabeel	Adjunct Associate Professor
Blanchard, Denise Lynne	Adjunct Associate Professor
Davies, Carmel Elizabeth	Adjunct Lecturer
Devitt, Alison Jane	Adjunct Lecturer
Duffy, Mary Elaine	Adjunct Professor
Goddard, Linda Diane	Adjunct Senior Lecturer
Robinson, Tracy Elizabeth	Adjunct Senior Lecturer
Stockton, Deborah Anne	Adjunct Lecturer
Van Wissen, Kim Antoinette	Adjunct Senior Lecturer

Appendix 4

Published Journal articles

2022	2021	2020
60	62	41
		Total 163

Published Journal articles – duplicates removed

(more than one SNPHS nursing academic author)

2022	2021	2022
49	55	35
		Total 139

Appendix 5

Journal title	Ranking	# Articles published 2020-2022
Contemporary nurse	Q2	5
Partyline	Unranked	5
Australian Nursing and midwifery journal	Unranked	4
International journal of healthcare	Unranked	4
Issues in mental health nursing	Q3	4
Health and social care in the community	Q1	3
Journal of neonatal nursing	Q2	3
Journal of nursing management	Q1	3
Nurse education in practice	Q1	3
Nurse education today	Q1	3
Women and Birth	Q1	3

