

Project Number	Project Title	Project Summary
1	<p>Impact of pregnant and breastfeeding mother's diet to children's health in first years of life – A systematic review</p> <p><i>Supervisor: A/Prof Renaud Joannes-Boyau</i> <i>Co-supervisor: Dr Jessica Bayes</i></p>	<p>The research will investigate and review the available scientific literature, pertaining to epidemiological studies linking early-life children's health and nutritional choices of expecting and nursing women. The student will be expected to gather and discuss the scientific evidence into a short report.</p>
2	<p>The history of Naturopathic Education at Southern Cross University</p> <p><i>Supervisor: Dr Adele Wessell</i> <i>Co-supervisor: TBA</i></p>	<p>Southern Cross University has been a leader in the field of natural and complementary medicine and was the first University to introduce a Bachelor of Naturopathy degree in 1996. As part of the 30th anniversary of the University in 2024, an understanding of this history is vital. This project will form a discrete part of a larger history of the university and will contribute to public outcomes. A number of options are open, depending on student's interests and skills. Preparation of a Human Research Ethics Committee application to undertake oral histories will require a literature review and development of key questions. A separate research project on the Medicinal Plant Garden and Medicinal Plant Herbarium can focus on the idea of the 'living laboratory' for teaching or the contribution of and use by community members.</p>
3	<p>Scoping review on health services research and pregnancy loss</p> <p><i>Supervisor: Dr Julia Marsden</i> <i>Co-Supervisor: Dr Rebecca Redmond</i></p>	<p>Women receive a variety of services after pregnancy loss. It is not yet known what services are needed, or wanted, by women after pregnancy loss. The aim of this project is to conduct a scoping review of the research on health services for women after experiencing pregnancy loss. Using the JBI method, key databases will be searched. Research question: What is the current state of knowledge on health services for women after pregnancy loss?</p>
4	<p>Diet quality and nutritional intake of military veterans – A systematic literature review</p> <p><i>Supervisor: Dr Jessica Bayes</i> <i>Co-supervisor: TBA</i></p>	<p>Diet plays a critical role in overall health and well-being. Veterans may face unique health challenges due to their service, such as physical injuries or mental health disorders, such as PTSD. Proper nutrition can help improve physical and mental health, enhance quality of life, and potentially reduce the risk of chronic diseases. Additionally, many veterans require rehabilitation and medical care after their service, especially those with combat-related injuries. Proper nutrition is essential for the recovery process, as it supports tissue repair, wound healing, and overall physical rehabilitation. To date, no comprehensive review has assessed diet quality and nutritional intake in military veterans. This 6-week project will involve conducting a systematic literature review to assess the current literature exploring this important topic. It will assess whether veterans diets meet national nutritional guidelines and highlight priority areas for policy makers, governments and defence organisations.</p>

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5	<p>The Impact of Medicinal Plants on Honey Production and Bee Health in Medicinal Honey Forests</p> <p><i>Supervisor: Prof Marc Cohen</i> <i>Co-Supervisor: A/Prof Romy Lauche</i></p>	<p>Medicinal Honey Forests are designed to provide a haven for bees with year-round bee fodder, while regenerating the environment, restoring lost ecosystems. Keeping bees healthy, happy, and in the same place is the best way to defend bees against colony collapse, varroa destructor mite and other threats to bee populations, and is the best way to produce potent, high-value medicinal and therapeutic Manuka honey. Many medicinal plants including many native Australian plants can significantly improve the beneficial properties of bee products, such as honey, pollen, royal jelly, and propolis while also providing high-value ancillary crops for farmers. A systematic review will be conducted examining existing literature on various medicinal herbs and other bee fodder with respect to their pollen and nectar content as well as flowering times, and their use and value in companion planting in Medicinal Honey Forests.</p>
6	<p>Dietary patterns in the aftermath of the 2022 floods in Northern New South Wales</p> <p><i>Supervisor: Dr Jessica Bayes</i> <i>Co-Supervisor: A/Prof Romy Lauche</i></p>	<p>Individuals affected by natural disasters such as floods often face many challenges, including loss of housing and property, financial difficulties, and mental health problems. Emerging evidence demonstrates that diet plays a significant role in mental health outcomes, including depression and anxiety. However, relatively little is known on how natural disasters effect dietary change in flood affected individuals and the impact these changes have on mental wellbeing. Therefore, we aim to investigate these research questions in flood affected residents of NSW via an online cross-sectional questionnaire. This will provide crucial information on how flood disasters impact diet quality and the potential consequences for mental health. It will also provide guidance for future targeted diet interventions/programs for flood affected individuals within the community.</p> <p>(This project requires HREC approval, which will be acquired prior to the project)</p>
7	<p>Lead (Pb) level in human tissues linked to wildfire exposure (e.g. inhalation, contaminated water, food source) – A systematic review</p> <p><i>Supervisor: A/Prof Renaud Joannes-Boyau</i> <i>Co-supervisor: A/Prof Romy Lauche</i></p>	<p>The research will investigate and review the available scientific literature, pertaining to epidemiological studies linking wildfire smoke to lead (Pb) content in human tissues (hair, blood urine and nails). The student will be expected to gather and discuss the scientific evidence into a short report.</p>
8	<p>Kombucha – the stuff that dreams are made of?</p> <p><i>Supervisor: A/Prof Romy Lauche</i> <i>Co-Supervisor: Prof Marc Cohen</i></p>	<p>Over the last decade, the interest in traditionally fermented foods has grown substantially, with the underlying assumptions of that they can lead to significant health benefits through the beneficial influences of bacteria and yeast on the digestive microbiome. Kombucha is a drink made by symbiotic fermentation of sugared tea using symbiotic cultures of bacteria and yeast, the so-called <i>mother</i> or <i>mushroom</i>. Claims include positive impact on the gut microbiome, and health resources suggest that Kombucha boosts the immune system, aids in digestive problems, and improves overall health, however little evidence is available to support these claims. This study aims to assess self-reported changes in health, and well-being following Kombucha consumption. Using an online survey, adults consuming Kombucha will be asked to complete a questionnaire on their health status and observed changes with consumption. The student will help develop the questionnaire, drive recruitment, and analyse the data under guidance.</p> <p>(This project requires HREC approval, which will be acquired prior to the project)</p>

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9	Thematic analysis of shame and compassion experiences for mothers <i>Supervisor: Dr Julia Marsden</i> <i>Co-Supervisor: Dr Rebecca Redmond</i>	<p>Substantial evidence shows developing capacities to give, and receive, compassion is associated with better psychological outcomes for mothers. An understanding of how mothers use the capacity to give, and receive, compassion to enhance their psychological state is not yet known. This project involves analysis of interviews with 14 mothers on their experiences of shame as a mother, how they use compassion to reduce shame, and how compassion enhances their psychological state in their role as a mother. The plan is to use the thematic analysis framework (Braun & Clark) on these 14 interviews.</p> <p>Research question: what do mothers report about how compassion helps them when feeling shame in the mothering role?</p>
10	COVID-19 preventive and social-behavioural practices among Racially and Culturally Minoritised populations: A systematic review <i>Supervisor: Dr Peter Bai James</i> <i>Co-supervisor: TBA</i>	<p>Non-pharmacological COVID-19 preventive approaches like the regular wearing of face masks, practicing social distancing, and isolating suspected and confirmed cases, as well as community containment, washing of hands with soap under running water, and observation of sneezing and coughing etiquette, have played a key role in mitigating the spread of the SARS-CoV-2 virus. The role of information, education, and communication in promoting the practices of these non-pharmaceutical preventive measures cannot be underscored.</p> <p>Research has established that COVID-19 disproportionately affected racially and culturally minoritised populations residing in high-income countries. Such disparity is observed in the number of infection rates, hospitalisations, severe morbidity, and mortality. Several studies have highlighted the critical role socio-cultural and environmental factors influence preventive behaviour. These factors can be profound in racially and culturally minoritised populations who may have differing beliefs and are often sceptical of interventions implemented by public health and government authorities because of their lived experiences.</p> <p>Currently, there is limited summary evidence on COVID-19 preventive and social-behavioural practices among racially and culturally minoritised populations in high-income countries. This study will synthesize relevant evidence to explore COVID-19 preventive and social-behavioural practices among racially and culturally minoritised populations in high-income countries and identify facilitators and barriers.</p>
11	Prophetic medicine practice in Australia <i>Supervisor: A/Prof Romy Lauche</i> <i>Co-Supervisor: TBA</i>	<p>Prophetic medicine or Medicine of the Prophet (Peace be upon him) comprises the divinely inspired words of therapy of Prophet Muhammad. Despite widespread practice little is known about the actual supply, and uptake of Prophetic medicine practices in Australia. This project aims, via a literature review or social media analysis, aims to identify common practices in Australia. The project can be focused on specific interventions, for example Hijama (cupping), or around religious practices such as Ramadan.</p>

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12	Complementary and integrative medicine use in Australian hospitals <i>Supervisor: Prof Jon Wardle</i> <i>Co-Supervisor: TBA</i>	<p>Complementary medicine use is surging in Australia, yet most of this growing use has been confined to private practice that is not subsidised by public health schemes. However, there are pockets of integration in both Commonwealth and State-funded health systems. Complementary medicine is significantly integrated and documented in hospitals in numerous countries, yet the presence of complementary therapies in the Australian hospital system remains largely unknown. This project utilises similar approaches to studies in Norway, Canada, and the United States to systematically map complementary medicine integration of complementary therapies in the Australian public and private hospital settings.</p>
13	Current landscape of Indigenous food sovereignty exploration in Australia: a narrative literature review <i>Supervisors: Dr Kelly Menzel, Dr Alana Gall</i>	<p>Over the years, efforts to reclaim the rights of Indigenous Peoples to access and have control over their lands, natural resources and food sovereignty, has been reported globally. With an estimated 370 million Indigenous Peoples living worldwide, there are significant variances between their traditional Indigenous knowledges, that inform what Indigenous food sovereignty means to them. Considering Indigenous food sovereignty can be broadly defined as ‘a rights-based approach to land, food and the ability to control a production system that emphasises accountability to holding culturally, ecologically and spiritually respectful relations—with plants, animals, environment and surrounding communities within those systems’ the importance of having a place-based understanding of this is paramount. The current project aims to look at the current landscape around food sovereignty for First Nations Peoples in Australia, by conducting a narrative literature review looking at both peer-reviewed academic articles and grey literature. Indeed, assessment of First Nations Peoples food sovereignty in Australia is an essential component of reclaiming their rights, as it examines the current community food environment, informs change to strengthen food systems, and in turn, community health and wellbeing.</p>
14	Analysis of disciplinary cases and case law in integrative medicine <i>Supervisor: Prof Jon Wardle</i> <i>Co-Supervisor: TBA</i>	<p>Integrative medicine is meant to combine the best of conventional and complementary approaches to healthcare. However, a major barrier to adoption is the orthodox hegemony of conventional medical practice, which can bring ideological opposition and conflict from the medical profession. One area where this conflict can materialise is in disciplinary hearings against medical doctors who use complementary medicines, often seen as being improper for medical practitioners by virtue of their unorthodox and nonevidence-based treatments that fall outside professional norms. This project will conduct a case analysis of disciplinary hearings related to integrative medical practice. This study will not only inform stakeholders on key developments in integrative medical practice but will also provide valuable insights which will inform regulation of complementary medicine professions, to ensure that regulation meets its mutual aims of respecting autonomous practice whilst supporting public interests.</p>

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15	Towards transformative mental health: Gathering mental health social work practice wisdom <i>Supervisor: Dr Louise Whitaker</i> <i>Co-Supervisors:</i> <i>A/Prof Melissa Petrakis (Monash University)</i> <i>Ms Fiona Smith (LaTrobe University)</i> <i>Dr Fredrick Velandar (Charles Sturt University)</i> <i>TBA (National Centre for Naturopathic Medicine)</i>	<p>The United Nations' recognition of the need for "a revolution in mental health care-enabl[ing] a long overdue shift to a rights-based approach" (United Nations Human Rights Office of the High Commissioner, 2017) aligns well with social work values. However, neo-liberal and biomedical dominance of mental health makes the day to day fostering of this shift complex and challenging for mental health social work. This research project aims to describe and explore public mental health social work practice progressing this global perspective of mental health. Using Cooperative Inquiry (Short, 2018), and referring to the Model of Holistic Competence in Social Work (Bogo, 2018), a research team comprising mental health social work academics from four Australian universities (4), mental health social work practitioners (5) and the undergraduate social work student (1) who successfully secures this scholarship, will collaboratively examine skills, knowledge and meta-competencies of public mental health social work practice.</p> <p>Working throughout the summer term 2024, the social work student will be invited to a) Participate in weekly collective critical reflection meetings examining scenarios from public mental health social work practice; b) Support the production of video-recorded vignettes for teaching and learning resources, and c) Contribute to data analysis revealing features of public mental health social work practice.</p>
16	Folk medicine and medicinal plant use in Australia: A Cross-Cultural Historical Study <i>Supervisor: Prof Jon Wardle</i> <i>Co-Supervisor: TBA</i>	<p>Australia is an ancient land with a unique floral heritage that was readily exploited by Indigenous peoples and that excited and intrigued the early European explorers and scientists, and other early immigrant arrivals from India and China. An impressive Indigenous materia medica (a collective knowledge about the therapeutic properties of any substance used for healing) had been developed prior to European colonisation, and the breadth of this knowledge and the potential of new resources offered by the new continent was immediately evident to European colonisers. However, such potential was left largely unrealised by the official medical community for a variety of reasons, including: dismissal of Indigenous knowledge by early colonists, the lack of a significant local publishing industry and reliance on imported medical literature and the lack of local medical schools or systematic organisation of local medical professions with associated reduced research capacity in medical botany and reliance on foreign medical practitioners who were unfamiliar with Australia's native materia medica. However, lay populations enthusiastically embraced native medicinal plants, and lay media reported a variety of uses. This project will explore how early colonial settlers interacted and engaged with native Australian medicinal plants by examining historical documents and early newspaper reports.</p>

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17	Green Prescriptions to support Mental Health in Rural and Remote communities in Australia impacted by climate change <i>Supervisor: Dr Eric Brymer</i> <i>Co-Supervisor: A/Prof Matthew Leach</i>	<p>This project aims to take what is known about the mental and physical health benefits of spending time in nature and put it into action in regional Australian communities. Although there is strong evidence to suggest that nature-based activities can improve well-being, this knowledge has not been fully used to help communities affected by climate change and environmental risks. This project aims to bridge this evidence gap. The project will systematically review research to determine whether nature-based experiences (e.g. green exercise) improve psychological resilience and/or mental health outcomes in communities at-risk of, or exposed to, environmental threats. The findings of this work will help inform the development and implementation of programs to support the mental health of regional communities impacted by environmental threats.</p>
18	Chemical profiling and identification of the total therapeutic constituents in medicinally used natural products <i>Supervisor: Dr Mahmudur Rahman</i> <i>Co-Supervisor: Dr Andrea Bugarcic</i>	<p>Medicinal herbs serve as the primary source of modern pharmaceutical lead compounds. These lead compounds typically function by binding to various protein sites, yet our understanding of the structures of these proteins remains limited. This study aims to profile the bioactive therapeutic components found in widely used medicinal plants from traditional and complementary medicine. We will employ High-Performance Liquid Chromatography coupled with Mass Spectrometry (HPLC/MS) to analyse the medicinal plant extracts. We will scrutinize crude data using existing databases, multidimensional structure databases, and network pharmacology. We will also investigate inter-genus variations of constituents through pharmacophylogeny analysis. Students can choose between two topics: common aphrodisiac medicinal plants or Brassica seeds (such as Brassica napus, B. juncea, B. oleracea, etc.). The methodological approach will depend on the selected topic.</p> <p>The study's outcomes may facilitate bioactivity guided identification, isolation, and repurposing of therapeutic agents for treatment. Additionally, it will help explain the therapeutic potential, synergism, antagonism, and protein binding of these bio-constituents. Furthermore, the results may open doors to discovering new drugs more efficiently and cost-effectively. We can apply techniques like molecular docking, molecular dynamic simulation, machine learning, and artificial intelligence (AI) programs to expedite this process.</p>