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It is with pleasure that I write once again this foreword for the School of Health and Human Sciences Annual Research Report.

Over the last year much has happened for the School and its context in which research activity occurs and evolves.

Research is an important force in generating a body of scientific knowledge that adds a vital perspective to the delivery of the nation’s healthcare and for the benefit of society.

Once again the reader will become struck by the multi-disciplinary integration of the School’s research activity and output, all done in an attempt to create robust science and better learning for our students.

This last year has seen the further evolution of four key research themes that the School is contributing output to:

1. Nursing to further build upon our ERA 4
2. Workforce – with various studies into the nature, role, scope of practice and education of the healthcare workforce
3. Exercise Science growing links with our partners in China
4. Social responsibility with contributions from Psychology.

Increasingly it is necessary to integrate basic, applied and health services research utilising a broad range of qualitative and quantitative approaches. The disciplines represented in the School of Health and Human Sciences are playing a major role, regionally and nationally, in this integration with promotion of a collaborative approach to research. We are actively drawing upon various disciplines and professional groups to bring the perspectives of diverse knowledge areas to bear on the complex issues of human health and wellbeing and patient care. In particular the translation of research into practice, be it clinical or pertaining to the learning of these groups, is an increasing focus.

The collaborations we have and are establishing with colleagues in the aged care sector, the Health and Hospital Local Health Districts, Medicare Locals and the Indigenous community continue to be a driver in our efforts. Built upon mutual interest, respect and desire to develop knowledge so to aid a better understanding of prevention, treatment, care and wellbeing including a peaceful death, remains our goal. This includes social and cultural contexts of health and the human condition, as well as efforts to enhance the capacities of communities and individuals to become directly involved in promoting the health of its members.

The School’s journey in establishing a research identity is growing, and we continue to advance with many staff being increasingly research productive.

I hope you enjoy reading the next step in our journey.

Congratulations to those who have contributed to this report and thank you to our service partners for helping it to happen.

Prof Iain Graham, Phd RN FACN
Dean of School, Head of School
School of Health & Human Sciences
Southern Cross University
This is the second research report from the Southern Cross University School of Health and Human Sciences (SHHS) and the overview of our research activity during 2014.

Our research activity has continued to grow, despite an increasingly challenging and uncertain environment for research and higher education in Australia. The School employs 42 research active staff, including Professor Colleen Cartwright who we warmly congratulate in her new Emeritus status. Alongside heavy teaching commitments, staff published 145 papers in peer reviewed journals and generated over $1 million in grant income.

We continue to cultivate our research networks and collaborations with regional, national and international partners. Internationally we have strong partnerships in China and the United Kingdom. More locally, we are working closely with several industry partners, regional Local Health Districts in New South Wales, regulatory bodies, Medicare Locals and state health authorities. We are particularly pleased to be developing our relationships with partners on the Gold Coast, including Bond and Griffith Universities and the Gold Coast Hospital and Health Service.

Through our partnerships, we have introduced several innovations to promote the translation of knowledge into practice, and to guide the development of industry-relevant research. For example, SCU introduced the first Professors-in-Residence program where Professor Kathleen Fahy has been working in partnership with nursing and midwifery teams in the Northern New South Wales Local Health District to develop research and practice improvement projects. In addition, in partnership with Feros Care we were successful in securing funding from the Australian Government Department of Industry “Researcher in Business Program” to develop protocols to test new telehealth technologies for implementation in the aged care sector. These approaches reflect our strengths and values in applied research.

Our nursing and workforce streams continue to grow, with staff involved with the Australian Health Practitioners Regulatory Authority guiding nursing competencies; with Queensland Health to evaluate their ground-breaking Allied Health Rural Generalist Training Positions; implementing Connecting Practice in New South Wales regional Local Health Districts; and involved in projects examining approaches to primary health care integration. We are working with the Mid North Coast Local Health District to develop emotional intelligence in leadership. Innovations including the development of online resources to support students in clinical placements, and the implementation of innovative team-based assessment rubrics (TeamUP), have also been key achievements this year.

Within sport and exercise science, Professor Shi Zhou continues his world-leading research to understand the cellular level responses to exercise training and hypoxia, examining the role of mitochondrial DNA and hypoxia in diabetes. SCU has the potential to translate these laboratory research findings into applied outputs, specifically by enhancing diabetes control through exercise conditioning; enhancing lower limb wound management through hypoxic treatment, biomechanics and adaptive footwear; and through the exploration of plant compounds that can be used in wound management. The findings will have policy and practice implications.

Researchers aligned with our Brain, Behaviour and Cognition: Social Perceptions theme have been investigating the effects of concussion, connections between eye movements and the early detection of dementia, as well as reading and language acquisition, and the scientific determinants of human behaviour and cognition from biological, behavioural, and neuroscientific perspectives.
Sadly, the School saw the departure of several productive researchers in 2014. Of particular note was the sudden death of our friend and colleague, Dr Sonya Brownie; we celebrate her strong personal and professional legacy within the School in this report.

In 2015, we will continue to focus our research activity around our strategic priority areas while strengthening our partnerships to ensure that our research is regionally relevant and applied. You can follow our progress on our SCU School of Health and Human Sciences Research Facebook page.

Prof Susan Nancarrow, PHD
Director Research
School of Health & Human Sciences
Southern Cross University
Research Profiles

Dr Gail Moloney

Research Theme: Brain, Behaviour and Cognition: Social Perceptions

What are your career highlights and greatest achievements in research?

Greatest achievements: Every time I get a paper accepted for publication!

In terms of career highlights, being invited to the University of Cambridge to examine a PhD (with a Viva defence); publishing a book; and giving a keynote at the London School of Economics to a room full of people who actually knew what I was talking about. In stark contrast to here, social representations theory is well known among European social psychologists. Suddenly finding myself talking to a large group of people who were interested in the nuances of my research rather than the reasons why I was working with this theory, was undoubtedly an inspiring and intimidating highlight.

What research are you currently involved in?

Broadly speaking, my research falls under the sub-discipline of social psychology. Theoretically, my interests are in the construction of social knowledge as it relates to social identity and social behaviour.

In terms of the application of theory, I have always been intrigued by what appears as the donation paradox: why low donation rates persist in the face of a reported willingness to donate blood or organs. I am currently working with the Australian Red Cross Blood Service, investigating blood donation from a social representations’ perspective to increase donation rates. In a similar vein, my research into organ donation has focussed on how the community, as distinct from the medical profession, understands organ donation. Currently, this line of research is being furthered through a PhD research project in collaboration with a specialist in organ donation from the Coffs Harbour Base Hospital.

Moving to Coffs Harbour sparked my interest in how communities understand refugee resettlements, what delineates a community, how communities understand the many social groups (e.g. religious, ethnic) in their midst, and the role of media images, such as cartoons, in shaping these understandings. The role that political cartoons play in constructing social knowledge has always fascinated me, as the seemingly innocent power of the cartoon has, up until now at least, often been underestimated.

My theoretical interests have also been applied to climate change in a project with CSIRO, and more recently with an ex-Honours student of mine, who now has a PhD and works in public health at the University of Adelaide.

Research seldom occurs in isolation, and the advantage of this is that it often provides an opportunity to collaborate with really interesting international researchers. This has definitely been the case for me, not only when I worked with researchers from Europe, England, America, Israel and New Zealand to publish a book encapsulating my theoretical interests but throughout my research career. Meeting people is not always associated with research, but for me this aspect of the research process is something I really enjoy.

How did you get to where you are now?

Before my interest in social psychology, I was a primary school teacher. I also trained and worked for some years as a Reading Recovery teacher working with children with reading difficulties. My teaching years were mainly in New Zealand, but I also taught for some years in inner London where the number of ethnic groups in any one classroom almost matched the number of children. I came to Australia intending to complete further study in education at Murdoch University in Perth but had a moment of clarity, or maybe madness, and gave it all away to start a degree in psychology and things just went on from there.
What advice would you give to a new researcher starting out?

Learn how to really balance administration and teaching with research as opposed to paying lip service to the relationship. Apart from this, work in an area that you are interested in and believe in its value.

What’s next for your research career?

Learn how to balance administration with research. I would like to win a large external research grant so I could spend more of my time working on my research.

Dr Suzanne Broadbent

Research Theme: Exercise, Health and Human Performance

What are your career highlights and greatest achievements in research?

I’ve been involved in a number of important research projects including an Australian Research Council Linkage project with a team from Deakin University, the Peter McCallum Institute and Southern Health in Victoria. This project investigated the efficacy of clinician referral pathways for prostate cancer survivors for exercise interventions, and the effectiveness of exercise for maintaining levels of physical activity and wellbeing. Another substantial achievement was securing funding through the Wicking Trust and Mason Foundation to undertake research comparing graded and intermittent exercise for people with Chronic Fatigue Syndrome (CFS). Through this research we have found significant improvements in immune function, cardiorespiratory capacity, fatigue and well-being after exercise, and intermittent exercise may be the most appropriate modality of exercise for CFS patients. Examining long-term effects of aerobic exercise on lymphocyte function has also been a research career highlight, with results showing significantly greater lymphocyte activation and responses in older men with regular aerobic exercise. Long-term endurance training did not cause suppression of lymphocyte function in athletes but actually increased the density of specific receptors on the cells, improving cell function compared to sedentary young men.

What research are you currently involved in?

I’m currently involved with a five year longitudinal study evaluating the provision of clinical exercise physiology rehabilitation services, provided by Masters Exercise Physiology students working at the SCU Health Clinic, for chronic condition clients in the Northern Rivers area. I will be continuing to research immune function adaptations with exercise, with CFS, and with some supplements such as Astragalus.

How did you get to where you are now?

By working through weekends and in my own time, and by taking on opportunities and projects as they appear, no matter how difficult they seemed to be! It is extremely difficult to do good quality research with a full teaching load but I’ve found that if you are passionate about research, then you bite the bullet and do it, even if it means making sacrifices.

What advice would you give to a new researcher starting out?

Access existing research groups and networks within the University and at other institutions. Try and make use of available University support (e.g. research mentor) as much as possible. Be prepared to spend a lot of time writing research grant applications even if it seems like you’ll never receive a grant. Develop projects that can be done with little funding. Don’t be afraid to follow gut instincts with projects that you are passionate about, even if you are the sole investigator. Think laterally and become involved with projects that may not be directly in your field of expertise, but that you can contribute to. Be prepared to spend a lot of your own time doing the research, even if it means sacrificing other parts of your life.

What’s next for your research career?
Finding funding is always a problem, especially in a small regional university. I would like to develop better linkages with other universities, research groups and industry partners. I aim to keep working in the fields of exercise immunology and rehabilitation exercise for chronic conditions, with the emphasis on cancer and CFS rehab. I am developing some projects looking at functional benefits of exercise for cancer patients, specifically leukaemia, and am open to proposals from colleagues and other researchers.

**Associate Professor Sandra Grace**

**Research Theme: Health Workforce Development**

*What are your career highlights and greatest achievements in research?*

Career highlights include being one of only six osteopaths in Australia with a doctoral qualification, and, as a practitioner-researcher, being positioned to effectively translate aspects of interprofessional practice research into health curricula. My early research explored integrative medicine – a form of health care where general medical and complementary medical practitioners collaborate on patient care. My greatest achievements in research have been critically examining hierarchical power structures and entrenched practices (in both integrative medicine and collaborations involving nursing and allied health) in order to cultivate innovative and authentically patient-centred models of care.

*What research are you currently involved in?*

I am currently working on a qualitative evaluation of the Allied Health Rural Generalist Training Positions program for Queensland Health with Professor Susan Nancarrow (Project Lead), Gretchen Young and Alison Roots. To help capture the success of this initiative, we’ve recorded the experiences of a range of stakeholders affected by the new roles. We are using an Inductive Logic Reasoning approach to develop a set of theoretically derived propositions to inform future practice. I am also conducting a number of interprofessional practice and education research projects, including ‘Changing practices through practice dialogue’, a qualitative study located in a rural medical practice; a survey investigating Australian GPs’ perceptions of chiropractic and osteopathy, and osteopathic students’ perceptions of interprofessional relationships.

*How did you get to where you are now?*

I qualified as an osteopath, chiropractor, acupuncturist, and naturopath in the 1980s and have remained in practice since then. I’ve always been involved in education, first as a high school maths teacher, and later as a teacher of natural medicine and education researcher. I established a VETAB accredited private college in 1988 which collaborated with the University of Western Sydney to provide a Bachelor of Naturopathy, first offered in 1995. I completed my PhD at the University of Sydney in 2009 and have been a full-time academic since then, first at the Education for Practice Institute, Charles Sturt University and now at Southern Cross University.

*What advice would you give to a new researcher starting out?*

We often advise new researchers to research what they feel passionate about. Passion is certainly an essential ingredient for maintaining the motivation and drive you need to design, conduct, and report research activities. However, you also need to be strategic about where you direct your research interests. Know what the national research priorities are and work out how your research fits in the Australian research agenda. Grant funding and publication opportunities will be more plentiful if you are working in an area of national and international priority. Don’t be shy about finding the best people to supervise you and to collaborate with. I’ve always found expert researchers to be happy to talk to new researchers who are interested in their work. Research is hard work but it is also stimulating and fun. It has provided me with opportunities to be innovative and creative, and to implement real change in the ways practitioners practise and students learn. There aren’t many careers that offer that.
What’s next for your research career?

My next goals are to continue to collaborate with such wonderful mentors as Professor Susan Nancarrow, Professor Joy Higgs, Dr Stephen Loftus and Dr Franziska Trede. I’m delighted to be part of Professor Nancarrow’s team working on Category 1 grants on health workforce reform. I will continue to explore interprofessional practice, its implications for patient outcomes, and the education to support its implementation. Two other exciting projects for 2015 involve developing a functional movement/dysfunctional breathing screen that may be performed by a range of health professionals, and the use of telehealth for retraining the breathing patterns of people with asthma and other chronic respiratory disease.

Associate Professor John Hurley

Research Theme: Nursing & Midwifery

What are your career highlights and greatest achievements in research?

I see myself as having two careers, one as a late life academic and the other as a mental health nurse leading psychiatric crisis teams and services in both Australia and the United Kingdom for nearly 20 years. People experiencing serious mental health problems are shamefully amongst the most stigmatised and marginalised in our society, consequently, my career highlights will always be those where mental health consumers were kept out of hospital, where complex circumstances needed quick decisions and where consumers moved back toward recovery.

I find most merit in research is that which is directly applicable to clinical work. Prior to coming to SCU some four years ago I was fortunate enough to be funded by the Scottish Government to undertake a study on a new nurse-led model of delivering healthcare to persons in police holding cells – another marginalised population and one with a high percentage of those with mental health problems. Identifying and then establishing the human, clinical and organisational worth of this nurse-led service (compared with the previous medical led model) was indeed satisfying.

What research are you currently involved in?

I am currently involved in a number of mental health related studies including one around mental health nurses being talk based therapists. As with the Scottish study, nurses, regardless of their clinical speciality, frequently do not attract the professional attributes that their clinical and leadership capabilities deserve, for a host of reasons. This study is showing that mental health nurses have a quite remarkable breadth and depth of qualifications and capabilities in psychotherapy, but are often restricted in using these skills by the very service models that employ them. Along with nursing colleagues from the School of Health and Human Sciences (SHHS), I’m also undertaking a funded study exploring the work of Peer Facilitators (staff members with the lived experience of mental illness) in the ‘Partners In Recovery’ program in both Northern New South Wales Local Health District and Mid North Coast Local Health District NSW. I also have the very real privilege of being a supervisor for a number of talented HDR and Honours students.

How did you get to where you are now?

The brief answer to this question is; incrementally and often accidentally. I performed very well at school but had totally no idea what I wanted to do. While passing through Mackay as a very naïve, young man I spotted a newspaper ad seeking out people interested in doing their hospital-based nurse training; it seemed as good as anything! So I was interviewed by a truly formidable looking matron, who seemingly believed my impassioned tale of always wanting to be a nurse. To my surprise, I enjoyed general nurse training and upon being put on the mental health ward as part of that training, I knew I had found my place in the world. From there I simply wanted to learn to be constantly better at what I did, so I gained a conveyor belt of new qualifications in mental health nursing, psychotherapy, counselling; each one a higher degree than the last until, to my utter surprise, I had a PhD.
Moving within Australia and to the United Kingdom was also important. New perspectives are vital to build research curiosity and to see that the ‘best way’ to do something is in fact both multiple and contextual. Meeting a breadth of diverse peers and being supported by more experienced researchers across multiple countries and hence universities was also of great benefit to my career. Finally, my firm belief is that my research has benefited enormously by keeping my clinical practice active to this day, in terms of grants, new ideas and working within the wider community. I recommend doing something similar to all my SHHS colleagues.

What advice would you give to a new researcher starting out?

Within the context of nursing research, researchers of the future predominantly need to be the ones who are still working within clinical settings, so that the wider nursing profession is embedded into a culture of curiosity, willingness to embrace discontinuous change and to utilise evidence. Nurses can be truly great collaborators and team players, so the new nurse researcher is always wise to link with more experienced researchers and to form a network of supportive but diverse minded peers. Often new researchers (and some not so new) don’t realise that undertaking research is as much of an emotional journey as a cognitive one, so paying attention to one’s emotional wellbeing is also important.

What’s next for your research career?

My wish list is a long one, but at the top of that would be to undertake a large international study exploring the impact of enhancing the emotional intelligence of mental health nurses on in-patient consumer clinical outcomes. However, grant attainment is very challenging so if this ‘dream study’ is not possible, I would fall back to what I see common amongst all SHHS researchers, a desire for my research to be relevant, regardless of the topic.
Research Projects and Collaborations

In 2014, the School of Health and Human Sciences received over one million dollars in research funding. In addition, staff from the School were involved in a range of research collaborations with international and local partners.

Funding Body: Wesley Mission Brisbane & SCU Collaborative Research Grant
Total Grant: $30,000
Project Title: Cultural change in residential aged care communities: Stage 1
Investigators: Assoc Prof Mark Hughes, Dr Sonya Brownie

This study examined the implementation of the Eden Alternative principles across 13 residential aged care communities operated by Wesley Mission Brisbane. The study involved focus groups with senior and junior managers to explore their understanding and translation of the Eden Alternative principles in their daily practice. This included their perception of the effectiveness of the Warmth Survey, a tool used to assess the extent to which the organisation can support the Eden Alternative culture change process in a sustainable way. Managers’ views on how the Eden Alternative philosophy reduces levels of loneliness, boredom and helplessness in aged care residents were explored. This study also sought to examine managers’ experience of their own and others’ leadership to facilitate culture change in residential aged care.

Funding Body: Australian Health Practitioner Regulation Agency
Total Grant: $731,000
Project Title: Review of the competency standards for the registered nurse
Investigator: Prof Andrew Cashin

A project to develop national Registered Nurse standards for practice. This policy research includes interviews, work-based observations and online surveying.

Funding Body: Commonwealth Department of Industry, Feros Care
Total Grant: $100,000
Project Title: Protocols for testing telehealth technologies
Investigators: Mr Horst Thomson, Prof Susan Nancarrow

This project is jointly funded by Feros Care and the Department of Industry under a Researchers in Business grant to determine the appropriateness and effectiveness of new telehealth technologies for the aged care market.
Research Report 2015

Funding Body: **Queensland Health**

**Total Grant:** $27,473

**Project Title:** Evaluation of the Queensland Health Allied Health Rural Generalist Training Positions

**Investigators:** Prof Susan Nancarrow, Dr Alison Roots, Dr Sandra Grace, Ms Gretchen Young

This mixed methods project involves the evaluation of nine rural allied health generalists introduced across rural and remote Queensland in 2014 using a mixed methodology.

Funding Body: **Australian Primary Health Care Institute (APHCRI), Australian National University**

**Total Grant:** $101,621

**Project Title:** Primary health care integration

**Investigators:** Prof Susan Nancarrow, Dr Cathy Avila, Dr Frances Doran, Dr Joanne Bradbury, Prof Robyn Keast, Dr Daniel Chamberlain, Mr John Brice, Mr Ken Stockley

The research is based on a case study of the ways in which the Lismore GP Superclinic integrates with the different levels of primary care services: patient, service delivery, and healthcare system. This will lead to the development of tools that can be used to benchmark current levels of integration, and map ideal directions for sustaining or further developing this model. The project will culminate in a practice guide for use by other primary care services to map, measure, analyse and ultimately enhance their relationships with other services to provide patient care, deliver services, and work within the wider health care system.

Funding Body: **Mission Australia**

**Total Grant:** $60,000

**Project Title:** Partners in recovery

**Investigators:** Dr John Hurley, Dr Marie Hutchinson, Prof Andrew Cashin, Prof Iain Graham

This 18 month, multi-methods study focusses on Peer Facilitators of the Far North Coast NSW Partners In Recovery, a mental health program that supports people who are experiencing severe and persistent mental illness. In particular the study seeks to identify mechanisms and contexts that support Peer Facilitators (who have a lived experience of mental illness) to work collaboratively across multiple mental health stakeholders. The study also seeks to discover, understand and articulate the outputs of Peer Facilitators with particular reference to their consumers, their carers and families.
Research Projects and Collaborations

Funding Body: Royal Australian College of General Practitioners (RACGP)

**Total Grant:** $70,000

**Project Title:** A qualitative assessment of Shared Medical Appointments (Group Consultations) as a novel alternative model for Type 2 diabetes management in primary care

**Investigators:** Prof John Dixon, Prof Garry Egger, Assoc Prof John Stevens

The conventional 1:1 medical consultation model is often insufficient for managing chronic diseases because of the growing scale of the problem and need for multiple time-consuming, inefficient visits with the multi-disciplinary care team. Shared Medical Appointments (SMAs) are "comprehensive medical visits (billable at individual rates) run in a supportive group setting of consenting patients with similar concerns". This pilot study was undertaken to assess the perceived value and possible outcomes of SMAs for Type 2 diabetes management in primary care in Australia. The results showed 98% patient support (n=85) and desire to attend SMAs over 1:1 consultation and 100% provider (GP) support (n=8).

Funding Body: North Coast Medicare Local, Northern NSW Local Health District

**Total Grant:** $20,000

**Project Title:** Co-location and integration of community and allied health services into general practice: A demonstration trial in NCML.

**Investigators:** Professor Susan Nancarrow, Dr Alison Roots

This project evaluates the processes and impacts of co-locating community health employed allied health practitioners into general practice within the North Coast Medicare Local region.

Funding Body: North Coast Medicare Local, Northern NSW Local Health District, Mid North Coast Local Health District

**Total Grant:** $20,000

**Project Title:** General practice nurse delivery of home visit services (Practice Nurse Home Visit Trial)

**Investigators:** Professor Susan Nancarrow, Dr Alison Roots

This project evaluates the processes and impacts of employing practice nurses to perform home visiting services in collaboration with general practitioners.

Funding Body: Mid North Coast Local Health District

**Total Grant:** $2,000

**Project Title:** Midwifery decision-making process when assisting women to maintain perineal integrity during active second stage labour

**Investigator:** Dr Elaine Jefford

The aim of this research is to gather individual experiences/stories to illuminate the ways in which midwives come to understand, act and manage their day-to-day situations and specifically how they enacted clinical decision-making during second stage labour related to perineal integrity.
Partner Institution: Department of Sport, Health and Exercise Science, University of Hull (UK)
Project Title: Development and validation of the Adolescent Sport Drug Inventory (ASDI) and factors that influence attitudes among adolescents
Investigators: Dr Adam Nicolls, Mr John Perry, Dr Andrew Levy, Dr Timothy Baghurst, Dr Rudi Meir, Mr Leigh Jones, Dr Colin Sanctuary

This 3 year project is funded by the World Anti-Doping Agency. It will examine those factors that influence attitudes toward doping in adolescent athletes in a range of countries from around the world.

Partner Institution: Adidas a.i.t. (Portland, Oregon, USA)
Project Title: The influence of weightlifting shoes using different loads on barbell back squat technique
Investigators: Dr John Whitting, Dr Rudi Meir, Dr Zac Crowley, Mr Ryan Holding

Initial pilot data collection was conducted for the project during 2013. In 2014, final data collection and analysis was completed resulting in the submission of a technical report to Adidas a.i.t in Portland, Oregon and the submission of a full research paper to the Journal of Strength and Conditioning Research.

Partner Institution: Tianjin University of Sport (China)
Project Title: Effects and molecular mechanisms of acute and intermittent exposure to hypoxia environment and endurance exercise on glucose homeostasis and insulin resistance in obese mice with Type 2 diabetes
Investigators: Ms Yun Wang, Prof Shi Zhou, Dr Allan Davie, Prof Yong Zhang, Prof Li Wen, Mr Xinhao Wang, Ms Youyu He

This project aims to determine the effects of acute and intermittent exposure to a hypoxia environment during both non-exercise and exercise conditions, on glucose homeostasis and insulin resistance, and to examine the mechanisms underlying these effects, for potential new interventions for diabetes.

Partner Institutions: Pulford Air and Gas, Tianjin University of Sport (China)
Project Title: The effects of six weeks training or recovery in a hypoxic chamber, on activity states of HIF-1α, key mRNA markers of adaptation, and physiological responses to an incremental treadmill test in Thoroughbred horses
Investigators: Dr Allan Davie, Prof Shi Zhou, Prof Li Wen, Prof Yong Zhang, Mr Tom Fyfe

The aim of this study was to examine the effects of six weeks of hypoxic training on metabolic efficiency of the horses at different galloping speeds on a treadmill. The project was supported by an SCU-Pulford collaborative research grant. Support was also provided by Darren Weir Racing Stables in Victoria, who provided the horses for the study, Pulford Air and Gas in providing use of hypoxia training facility, and Ballarat Veterinary Centre for providing veterinary services during the project.
**Partner Institution:** Tianjin University of Sport (China)  
**Project Title:** A comparison of cumulative effects of training on alternate or continuous four days on expression of selected mitochondrial genes in rat skeletal muscle  
**Investigators:** Dr Allan Davie, Prof Shi Zhou, Prof Liping Huang  
Adaptations to exercise are the results of accumulation of specific proteins. This project examined the cumulative effects of two training protocols on expression of several selected mitochondrial genes. The results provided insight into the importance of training design and recovery sessions and exposed a need for more scientific research into training design for optimising adaptations.

**Partner Institution:** Tianjin University of Sport (China)  
**Project Title:** Further investigations on the effects of acupuncture on muscle strength and underlying mechanisms  
**Investigators:** Prof Shi Zhou, Prof Liping Huang  
A series of investigations have been conducted to determine the effects of unilateral resistance exercise, electromyostimulation and acupuncture on expression of muscle strength in both limbs. The outcomes of the research may have clinical implications in rehabilitation and conditioning.

**Partner Institution:** Robinson Research Institute, University of Adelaide  
**Project Title:** The communication, speech and language skills of late pre-term babies at 2: A prospective observational cohort study  
**Investigators:** Dr Deb James, Dr Julia Pitcher  
This prospective longitudinal observational cohort study, using data from Growing Up In Australia: the Longitudinal Study of Australian Children, examined the communication, speech and language outcomes of late preterm (32 to 36 weeks) children at 35 months. About 3% of the 5107 children, aged 3 to 19 months at the start of the study were late preterm. They did not differ to term children on any of communication, speech and language outcome measures. The preliminary regression analyses indicated that the quality of the children’s home environment accounted for much of the variance in their outcomes.

**Partner Institution:** Surfing Australia’s High Performance Centre  
**Project Title:** Comparison of indicators of fluid loss in recreational surfers  
**Investigators:** Dr Rudi Meir, Mr Blake Duncan, Mr Christian Gorrie, Dr Jeremy Sheppard  
This project examined fluid loss in seven recreational surfers under two different clothing conditions i.e. wearing board shorts only or a wetsuit only. Participants in this project had their pre- and post-surf changes in body mass, haematocrit, urine colour and urine specific gravity determined after a recreational surf session conducted in either summer or winter. Significant changes in body mass, hematocrit and tympanic temperature were recorded but these were not significantly different between the clothing conditions. This ongoing research is the first to examine fluid loss in surfing and it has established that sweat rate during this sport can be significant.
Partner Institution: Surfing Australia’s High Performance Centre

**Project Title:** Comparison of landing mechanics in injured and non-injured surfers

**Investigators:** Dr John Whitting, Ms Lina Lundgren, Dr Jeremy Sheppard

This project examined the landing mechanics in a dry land task in previously injured and non-injured surfers. The ankle is a significant site of injury, both in recreational and competitive surfers, and this research is examining the impact of aerial surfing manoeuvres on ankle injuries. When landing from an aerial manoeuvre the compression loads on the body can be up to 8 times body weight. This research will help to better understand injury mechanisms in surfing and lead to strategies to reduce these injuries.

Partner Institution: Macquarie University

**Project Title:** Australian GPs’ perceptions of chiropractic and osteopathy

**Investigators:** Dr Roger Engel, Dr Robyn Beirman, Dr Sandra Grace

Media comments regarding the practice of chiropractic highlight a climate of inter-professional concern between the medical and chiropractic professions. Most of these concerns centre on the risk/benefit balance associated with chiropractic intervention. However, countries like the UK and Canada offer chiropractic services in public hospitals or have a high percentage of chiropractors working in multi-disciplinary medical centres. In Australia, the osteopathic profession, although smaller in size, does not seem to attract the same level of criticism as the chiropractic profession. The reasons for this difference are unclear. This national study explores perceptions of Australian GPs towards the chiropractic and osteopathy professions.

Partner Institution: Macquarie University

**Project Title:** Validation of assessment measures used in the osteopathic diagnosis of dysfunctional breathing in chronic respiratory disease

**Investigators:** Dr Sandra Grace, Dr Rosalba Courtney, Dr Roger Engel

The purpose of this study is to assess the validity and reliability of a number of breathing assessment techniques on people with chronic respiratory disease. This project involves: (1) training students enrolled in the Master of Osteopathic Medicine at SCU in the use of the Manual Assessment of Respiratory Medicine, HiLo and chest expansion measurement techniques, the Nijmegen Questionnaire and the Self Evaluation of Breathing Questionnaire; and (2) application of these assessment techniques to people with and without chronic obstructive pulmonary disease and/or asthma.
Partner Institution: A medical practice in rural NSW
Project Title: Changing practices through practice dialogue
Investigators: Dr Sandra Grace, Dr Suzanne Alder

The research is located in a medical practice which has been engaging in a whole practice dialogue to enable change in their workplace culture. This research is designed to enable the practice to get a clear picture of the journey it has taken and to identify the implications of that journey for other practices wanting to initiate workplace culture change. In a series of semi-structured interviews, participants reflected on the outcomes of strategies implemented to create culture change, on their ideas for the future direction of the practice, and lessons learned about the process of practice review.

Partner Institution: Victoria University
Project Title: Exploring clinical reasoning in osteopathy: Experiences of pre-registered and experience practitioners
Investigators: Dr Sandra Grace, Mr Paul Orrock, with a group of fifth year Master of Osteopathic Medicine students

This project explores clinical reasoning in osteopathy from the perspectives of experienced practitioners and senior students before graduation. Comparisons of these perspectives will facilitate our understanding of clinical reasoning and the influence of clinical experience on the process. Findings of the study will inform curriculum reviews that aim to scaffold development of clinical reasoning.

Partner Institution: The Australian Traditional Medicine Society
Project Title: Adverse events arising from natural therapies: An update from the Natural Therapies Workforce Survey
Investigators: Dr Sandra Grace, Mr Stephen Eddey, Dr Thomas Harris, Ms Anne Vlass

A range of natural medicine treatments are commonly used by the Australian population to help reduce the incidence of chronic disease and generally improve health and wellbeing. With any form of treatment it is important to identify side effects and/or adverse events and demonstrate that the benefits of treatment outweigh the risks. Concerns have been particularly focused on medicinal plants, not only for potential side effects but also for their interaction with mainstream medical treatments. However, adverse events can also be associated with any natural medicine including massage and acupuncture. This study surveyed Australian natural medicine practitioners to provide an update on the frequency and type of adverse events in Australian natural medicine practice.
This year has seen the winding down of SCU’s contribution to the Collaborative Research Network (CRN). With input from 12 universities across 15 projects, the CRN suite of initiatives has focussed on reforming higher education teaching, learning, research and research training.

SCU’s CRN project, consisting of three elements including Nursing in collaboration with University of Sydney partners in the Sydney Nursing School and the Sydney School of Public Health, has contributed enormously to the growth of research capacity within the nursing discipline at the School of Health and Human Sciences, particularly in areas of mental health and nursing workforce development (advanced practice).

While the CRN project continues nationally into 2015, the SCU project has now all but completed with ongoing reporting on outcomes. Over the three years of the project an extraordinary amount of ERA registrable papers were published and over $1,000,000 Category 2–4 research money was secured.

Through the Nursing CRN’s workforce development strand, our School has earned a leading role in developing the professional practice standards for two of the three regulated nursing roles in Australia, including the development of the new Nursing and Midwifery Board of Australia Nurse Practitioners Standards for Practice, published this year. Following on from the success of the nurse practitioner work, we are currently leading the Registered Nurse standards for practice project.

This year, the CRN also contributed to workforce development activities and funding for the Collaborative Practice Unit (established with Northern NSW Local Health District (NNSWLHD)), in particular in the domain of the leadership and coaching work, led by Rae Conway. The opportunity to combine Rae’s substantive role within the NNSWLHD with CRN activities has contributed to a stronger partnership with the School, paving the way for future endeavours.

All three fellows, Rae Conway, Ann Mulder and Joanne Bradbury, who undertook formal university studies in the time of their association within the CRN contributed positively to the School’s research endeavours. Sustainable research relationships were cultivated with Sydney colleagues and collaborative work is continuing. Congratulations to all involved in the Nursing element of the CRN for the great work that made it such a success.
Collaborative Practice Unit

Professor Andrew Cashin

In 2013, SCU’s School of Health and Human Sciences and the Directorate of Nursing and Midwifery, Northern NSW Local Health District (NNSWLHD) signed a Memorandum of Understanding to create a health service-based Collaborative Practice Unit (CPU) for Nursing and Midwifery to enhance the education of the nursing and midwifery workforce and to promote clinically relevant research that can catalyse supported practice change. The unit is directed by Professor Andrew Cashin.

2014 saw continued work in building research capacity within the NNSWLHD lead by SCU research fellow Dr Greg Fairbrother. This effective work has resulted in several strong publications in print and press. Greg has included a report detailing his post doctorate work and outputs in this section of the Annual Research Report.

Senior Research Fellow, Ms Rae Conway initiated work on a coaching and leadership program which will continue in 2015. Rae’s earlier work, which led to conceiving the current program, was accepted this year for publication in the prestigious Journal of Advanced Nursing. This work forms the basis of Rae’s Masters by Research.

Professor Andrew Cashin led a study on clinical nurse consultant work within the local LHD and with urban colleagues in Sydney. This study uncovered new insights into the nursing workforce and was published in the Journal of Advanced Nursing.

A community of practice was established with nurse educators and clinical nurse educators in the NNSWLHD and a baseline workforce profile established; this group will continue to work into 2015 under the leadership of CPU scholar Andrew Woods. This research forms the basis of Andrew’s PhD studies.

This year also saw an extension CPU activities into midwifery practice development with the establishment of the Professor in Residence program and the work of Professor Kathleen Fahy. Kathleen’s unique role and the aims of this scheme are detailed in subsequent sections of this Annual Research Report.
Capacity building research and evidence utilisation skills among nurses and midwives of the Northern NSW Local Health District

Dr Greg Fairbrother

Post Doctorate Fellow

My postdoc was located on campus in the Northern NSW Local Health District (NNSWLHD) at Lismore Base Hospital in the newly created Collaborative Practice Unit (CPU) (a joint SCU/NNSWLHD professional support initiative), with education, support and mentorship outreach to Tweed and Grafton hospitals and the smaller regional facilities of the district. My concern was helping nurses and midwives to improve their research and evidence literacy and utilisation skills. I conducted an eight week intensive workshop program ‘Understanding and using evidence in your practice’ in 2012 and again in 2013 on all three major LHD hospital campuses. Some 85 senior nurses and midwives participated. Pre/post course evidence-related knowledge and anxiety testing, yielded strong results at P<0.0001 levels. As well as teaching, supporting and mentoring, I studied the evidence-related behaviours and attitudes of NNSWLHD nurses and midwives.

Baseline and follow-up surveys of behaviours and skills related to evidence-based practice (EBP) were conducted. These were examined in the context of demographics, job satisfaction and burnout. The target sample was all senior nurses and midwives of the NNSWLHD at clinical nurse specialist and higher level. The descriptive result of the baseline survey is in press with Collegian. A comparison of regional Australian EBP capacity is drawn with a UK sample and an Australian sample of general practice nurses. The principle finding of this first paper is that the sample participants were not routinely using evidentiary knowledge sources in their practice. A second paper based on the 2012 baseline study has been accepted for publication by Collegian. This employed multiple linear regression to establish predictive models of EBP capacity. The principal finding here is the isolation of a predictive model (P<0.0001) that locates higher level of education and higher job satisfaction as the principal predictors of EBP capacity. A third paper which provides a comparison of the follow up (2014) survey with the baseline, is under advanced preparation. Preliminary findings from this comparative study have located some significant improvements in 'Finding and reviewing evidence’ and ‘Barriers to changing practice on the basis of evidence’ questionnaire domains.

Some ten significant clinical research projects led by NNSWLHD nurses and midwives have been supported by my postdoc/the CPU since 2011. Numerous among these have been presented at local and national conferences and are under advanced manuscript preparation. A program of research in leadership coaching has also been progressed by Rae Conway (SCU Snr Research Fellow and fellow CPU staff member) and supported by my postdoc under the CPU banner. The first paper from this strand of inquiry is now in press with Journal of Advanced Nursing and a randomised controlled trial of leadership coaching and competing follow up options is now near complete.

My fellowship has also played a role in contributing to international debate around how to locate EBP philosophically and practically in relation to emancipatory practice development (EPD), a movement of some influence in the driving of Australian nursing and midwifery practice. The first paper arising from this work is under review with International Practice Development Journal.

The CPU presence in the NNSWLHD has resulted in the establishment of a substantial participatory action research project around nurse educator and clinical nurse educator role development. This project has yielded a baseline picture which is now guiding ongoing development cycles in the LHD’s nurse education sector, and a first paper has been submitted to Nurse Education Today.
In early 2014 I submitted an application for ARC DECRA funding (2015–17) to continue my work on understanding the barriers and enablers of evidence literacy and utilisation in nursing and midwifery. This unfortunately did not get up. With Iain Graham and Andrew Cashin’s support, I have applied for Adjunct status with the School of Health and Human Sciences, and hope to continue working with the team into the future. In my view, there are few greater priorities for nursing and midwifery today, than improving our capacity to both generate and understand research.
In 2014, the Northern NSW Local Health District and SCU entered into a unique arrangement enabling the launch of a Professors-in-Residence scheme, which commenced with the appointment of Kathleen Fahy as Professor of Midwifery at The Tweed Hospital and Murwillumbah District Hospital.

**Professor Kathleen Fahy**

The Professors-in-Residence scheme is a concept that is well established in the United Kingdom and United States, and supports the integration of health practice, research and education in order to improve patient care outcomes. In a first for regional NSW hospitals and universities, Professor Kathleen Fahy from the School of Health and Human Sciences took on the honorary position of Professor of Midwifery based primarily at Lismore Base Hospital (LBH). This particular collaboration has been an opportunity to develop research and practice improvement projects for nursing and midwifery throughout the Northern NSW Local Health District (NNSWLHD).

Kathleen is working to strengthen the already collaborative partnership between the region’s hospitals and SCU. She works closely with Ms Annette Symes, Area Director of Nursing and Midwifery, and LBH key staff including Ms Narelle Gleeson, Director of Nursing and Midwifery and Mr Brad Mills, Midwifery Unit Manager, as well as representatives from the NSW Health Essentials of Care Program (EOC) Ms Lily Fenech and Mr Rodney Hyland. Kathleen is responsible for a suite of key deliverables which include conducting and facilitating collaborative research as part of EOC. She is working to enable nursing and midwifery honours students to work on research projects within the NNSWLHD, and will deliver a planned seminar series at Masters level on *Social and Emotional Intelligence in the Health Workplace* for nurses and midwives.

Under the EOC banner, Kathleen is working with a participatory action research (PAR) team including Ms Suzanne Weir, the Acting Clinical Midwifery Consultant and 11 clinicians at the LBH Women’s Care Unit. The study seeks to improve the rates of immediate skin to skin contact and spontaneous breastfeeding at birth - a ‘non-intervention’ termed ‘Pronurturance’. The concept of pronurturance has been developed as part of a PhD study by Ms Anne Saxton. The aim of the PAR is reduce postpartum haemorrhage (PPH) rates and concurrently improve breastfeeding, bonding and women’s mental health. Study participants will include women, midwives and doctors from the LBH maternity unit and paediatric, anaesthetic, operating and recovery room staff; both medical and nursing. The action research study incorporates a nested prospective cohort study, which will be undertaken by Ms Fiona Campbell of the Women’s Care Unit under Professor Fahy’s supervision, and aims to measure pre and post ‘non-intervention’ PPH rates. It is anticipated that the collaborative research activities and outputs connected with this scheme will lead to evidence based, cost effective and improved person centred care for our region with national and international significance.
Emerging Partnerships

Professor Iain Graham

In considering our future directions in health and healthcare, the establishment of sustainable partnerships is central to our success. Over the last five years the School has been active in establishing such with various partners, be they with other universities or the health care system itself. These partnerships feature many complexities, and activities. Some are focused upon the sharing of research activities, such as the work in Exercise Science in China, which encompasses student and staff exchange, others are about capability building within the clinical workforce, such as the work with the regional health providers. Or some partnerships have focused upon pedagogical development or service innovation and evaluation. The School is increasing its profile within these activities and output is steady and growing, in terms of publications and conference presentations, many of which are featured in this report.

I don’t wish to spend more time, in this paper, discussing our current success, I would rather pose a preferable futures scenario from which we can engage with both current and future partners.

Liberating the future

Given the challenges that health and healthcare face one can tend to be pessimistic; to do that would be folly. I believe we need to establish a preferable future which will be marked by liberation and empowerment! We need to embrace our creativity so that we can subscribe to a new order of generating the scholarship needed in this preferable future.

First of all we need to stop confusing health with healthcare. Healthcare, or more specifically sickness care, is very different from health. Being healthy means understanding environmental, social, economic and political determinants not just the bio/psycho/social and genetic factors. Will the future of society make us more healthy or less healthy? What will be the future influences on health? Why will our view and value of healthiness be central to our lifestyle? How will that affect how we make decisions in living our lives? Therefore how will healthcare itself evolve as we move into this future? Nightingale termed it ‘health nursing’, very separate and different to ‘sick nursing’, and something we have never really achieved except in a piecemeal fashion.

Our current scholarship is focused more on the healthcare current debate rather than the health future debate. The latter is in the too difficult bucket for politicians and others to offer leadership in. There are also vested interests involved in keeping it so! Therefore our scholarship and research is perhaps overly concerned with the health professions and what they currently do, with evaluating the sickness care system, of defining roles and scope of practice, along with studies into the cost benefit of the healthcare service. These are important, and our current partnerships are focused on these issues because they are important. However if we are not careful, we can lose sight of the bigger picture and the need to focus on achieving our primary goal of defining health.

Now and into the future we will be faced with challenges associated with defining health and healthcare; what we will have to do is continually revisit our value base in order to accommodate the many challenges we will face from scientific discoveries to technologic innovation. Within this turbulence, the knowledge that becomes exposed will be, within itself, neutral. The challenge comes from its use, therefore the more who are involved in its development and use will be more inclined to utilise it in the most beneficial way. The creation of facilitative partnerships must be the vehicle for this for it will be through such that we will guide the development of health and healthcare into the future.
Higher Degrees Research Training

Dr Jacqui Yoxall
Director Higher Degrees Research Training

The School of Health and Human Sciences’ higher degree research training (HDRT) program currently supports 55 postgraduate students undertaking research at either Masters or PhD level. Our School has one of the largest cohorts of HDR candidates within the University and over 35 academic staff members qualified to provide supervision across a range of specialised areas. The breadth of the research currently undertaken is substantial and the School is committed to the continued development of our HDRT capacity.

During the last 12 months the School has seen growth in new enrolments, as well as candidates successfully completing their Confirmation of Candidatures, finalising their theses and being awarded degrees. Congratulations to these researchers and their supervisors.

I commenced in the role of Director HDRT in August 2014, and with excellent support across our campuses from Dr Alison Bowling, Deputy Director (Coffs Harbour) and our late colleague and friend Dr Sonya Brownie, Deputy Director (Lismore), the School has remained focussed on promoting a strong research culture among our HDR cohort. In October we hosted an HDR Symposium to showcase candidates’ research and encourage communication and networking between students and with industry partners. We had insightful and engaging presentations from Prof Iain Graham, Head of School and Professor Susan Nancarrow, Director of Research. Associate Professor Susan Brandis, Senior Director of Research for the Gold Coast Hospital and Health Service, provided an entertaining and thought-provoking keynote address.

Eighteen HDR candidates presented an overview of their research to date on a wide range of topics including gambling preferences, early identification of autistic behaviours, body image among weight-lifters, health care among the nursing workforce, social identity in multicultural society, boundaries of scope and practice of diabetes educators and many others. The presentations were all of a high standard and revealed the depth and breadth of methodologies and study designs applied across the School. Certificates were awarded for the best presentations of the day; the winners were Tara Kocek, Yun Wang, Beth Mozolic-Staunton, and their abstracts are shared below.

In addition to presenting their research and fielding challenging questions, candidates interacted with peers and supervisors. Overall the day was very productive and the HDR Symposium will now become an annual event.

In other University-wide opportunities for HDR students to present their research, Jeffrey Hodgins represented the School in the SCU round of the 3 Minute Thesis Competition (his abstract is included below) and PhD student Kay Ross presented her research in the 5 Minute Research Pitch.

With an ever-growing cohort of HDR students we consider creative and effective solutions to the challenge of providing comprehensive supervision. Thirty-six academic staff from our School attended SCU’s Supervisor Training Workshop this year and four academic staff completed additional coursework to qualify as a principal supervisor. HDRT supervision is a challenging and growth-promoting part of an academic or professional career and this is excellent progress towards enhancement of the quality of the supervision offered within our School.

Our School provides an excellent standard of training to our candidates – the achievements of 2014 have been substantial and I look forward to the next year of productive research.
Cultivating the ability to encapsulate and champion your research in a public presentation is essential for beginning researchers. The School’s HDR Symposium award recipients and the School’s 3 Minute Thesis competition representative are all well on their way to honing this critical skill; the abstracts presented here reflect the quality of their research.

Tara Kocek
PhD Candidate
1st place, Best Abstract and Presentation, HDR Symposium

The influence of executive function on the internalising and externalising behaviours in middle childhood

The development of social competence in children has been tied to the cognitive processes involved in executive function (EF). However, deficits in executive functioning – such as poor self-regulation skills, and maladaptive social information processing (SIP) biases, can interfere with the development of appropriate social, cognitive, and emotional behaviour. The aim of the proposed research was to investigate whether the behavioural problems of children can be explained by deficits in executive functioning, specifically, SIP, and self-regulation. The internalising versus externalising dichotomy was examined for classifying deficit profiles as a means of identifying the connection between EF and behaviour. Analyses revealed that there were both similarities and differences between children reported as either internalising or externalising, suggesting different cognitive profiles across the internalising-externalising dichotomy. This suggests that if interventions are uniquely tailored by using EF models to understand possible impairments and relative strengths they may be more beneficial for the child in improving social, cognitive, emotional, and academic difficulties.

Yun Wang
PhD Candidate
2nd place, Best Abstract and Presentation, HDR Symposium

Effects of four weeks intermittent exposure to hypoxia environment and or endurance exercise on glucose homeostasis and body weight in obese mice with Type 2 diabetes

Background: 1 hour of exposure in 15%O₂ has been reported to improve insulin sensitivity and short term glycaemia control in patients with Type 2 Diabetes Mellitus (T2DM). Methods: Male C57BL/6J mice developed T2DM by a high-fat diet (55%fat) were allocated into three intervention groups: exercise only, hypoxia (15%O₂) only and hypoxia-exercise. The intervention was designed as 1 hour/session, 6 sessions/week, for 4 weeks. There were also two control groups (no exercise or hypoxia): normal control and diabetes control. All mice were assessed for fasting blood glucose (FBS) and weight change in pre and post intervention separately. Results: the FBS of three intervention groups reduced from 14.17, 13.74 and 13.87 mmol/l to 9.43, 8.83 and 8.86 mmol/l respectively, but no difference between pre and post FBS in control groups. Significant differences between pre and post weight were only found in the two control groups. Discussion: The 4-week hypoxia intervention reduced the FBS to normal level, and slowed down the trend of weight increase in obese mice with T2DM.
Beth Mozolic-Staunton

PhD Candidate

3rd place, Best Abstract and Presentation, HDR Symposium

Right kids, right time, right services: Developmental surveillance for autism spectrum disorders in early childhood

Children who are at risk for autism spectrum disorder (ASD) would benefit from early identification and access to early intervention, as this takes advantage of children’s early brain plasticity. ASD can be reliably detected in children as young as 18 months of age, although developmental surveillance practices are inconsistent in the community and many developmentally vulnerable children are not identified until late preschool or school age.

Childcare settings present an ideal opportunity for ongoing developmental surveillance and appropriate, timely referral of young children to allied health supports. This study aims to implement and evaluate a system for identifying young children who may be “at risk” for ASD in early childhood education and care centres by comparing the effectiveness of current practices of developmental surveillance with the Social Attention and Communication Surveillance programme (SACS; Barbaro and Dissanayake, 2010). Investigating the involvement of early childhood education professionals as partners in early detection has implications for timely, efficient and widely available early detection. The specificity and sensitivity of current and emerging tools available to early childhood educators will be critical in supporting their involvement in early identification of young children.

Jeff Hodgins

PhD Candidate

3 Minute Thesis Competition, SHHS representative

The importance of Australian national identity to a sense of belonging of majority and minority cultural groups

The concept of belonging is receiving political, social, and academic attention in an increasingly trans-migratory and multicultural world. In a multicultural society, national identity has been proposed as the unifying social identity underpinning individual belongingness in majority and minority cultural groups. This study aimed to examine the primacy of importance to belongingness of Australian national identity of Anglo-Celtic and Chinese residents in Australia. A mixed method study found Australian national identity did not hold primacy of importance to belongingness, rather family identities (e.g. husband, mother, son, sister) were found as most important to both groups, along with cultural identity of Chinese. Anglos (n=13) felt culturally adrift, whereas Chinese (n=9) sought acceptance by promoting their culture, and bicultural identification. Consistent with the theory of belongingness, mutuality of acceptance was found to secure an intrinsic sense of belonging, whereas self-categorizing an identity did not. Findings suggest Australian national identity did not underpin individual belongingness in a multicultural society.
Dr Janie A Brown RN

What is your background PhD story?
I was working as a SCU staff member at Coffs Harbour campus as the Director of Practice Based Learning, initially for Nursing and subsequently for the School of Health and Human Sciences. My topic was born from this work and specifically from my observation of the role of the clinical teacher in supporting students to develop a nursing identity.

As a solo mum I needed to complete my PhD part-time over seven years so I could also be there for the big things in my children’s lives. After all my data was collected and as I was writing up, I packed up and moved from Northern NSW to Perth in Western Australia where I now live a fantastic lifestyle. My PhD is almost entirely inspired by some famous words from Gandhi: I am living as though I might die tomorrow but learning as though I could live for ever. In completing my PhD I hope my children have seen that they can do anything they set their hearts and minds to, despite the circumstances they might find themselves in.

What were the highlights and key findings from your PhD studies?
My research used a mixed approach to data collection and analysis, allowing me to develop skills in both quantitative and qualitative methods. My research revealed that the clinical teacher is a key socialising agent for student nurses. This is particularly the case for mature students and students from faith-based backgrounds. The main highlight for me was simply completing my study, especially as I was employed full-time and also had a young family. But I was also very excited to publish both my qualitative and quantitative results in *Nurse Education Today* during my candidacy; this has generated enquiries from around the globe about my work.

What advice would you give to a newly enrolled PhD student?
Newly enrolled students should attend the higher degrees orientation, form a peer support group and maintain a good relationship with their supervisors. Remember, doing a PhD is like eating an elephant, one bite at a time. Just focus on the next thing that needs to be done. At the beginning it’s your proposal and then ethics. Towards the end it’s one chapter at a time. Eventually, you get over the line. The other piece of advice that I have is to factor in more time than you think you need, especially for ethics and for examination. And go to graduation! It was a great way to cap off seven long and hard years.

What have you been up to since graduating? And what’s next?
I’m now living in Perth and working at Curtin University as the Director of Teaching and Learning in the School of Nursing, Midwifery and Paramedicine. I am also working at the St John of God Subiaco Hospital in the role of Nursing, Midwifery and Allied Health Research Nurse. My research areas of interest include the scholarship of teaching and learning, nursing in the acute setting with a focus on safety and quality, and nursing workforce. I hope to continue to work in leadership and research roles in higher education. Perth provides a wonderful opportunity to live a great lifestyle in a metropolitan city. My kids and I travel a lot, we spend many hours at Cottesloe beach, we enjoy living in very close proximity to the city and I have a great work/life balance (especially without a PhD hanging over my head).
A standout event on the School of Health and Human Sciences’ Psychology calendar is the Annual Honours Psychology Research Conference. This forum convened for the 11th time in September this year at Coffs Harbour campus, and was considered as one of the most successful conferences to-date.

Over two days, students completing their 4th year (Honours) in the Bachelor of Psychological Science each delivered an 11 minute presentation on their research projects, with additional time reserved for answering questions from their audience, building integral skills in orally disseminating and defending their findings in a public forum. Dedicating a tremendous amount of work in the lead-up to the conference, 40 students in all demonstrated their emerging research expertise on the day, with presentations at an international conference standard.

Feedback from some of the 150 participants, including family and friends, students, academics, plus professional, industry and community members was overwhelmingly positive, with particular praise for the ‘diverse, dynamic and engaging’ research topics. The Honours students themselves also commented that this event ‘made the whole year worthwhile’.

The conference culminated in the presentation of the following awards:

- **Best Conference Presentation**: Shannon Lang, ‘The Effect of Orientation on Perceived Facial Dominance’
- Coffs Harbour Student Association **Highly Commended Awards**: Hannah George, ‘Why good people do bad things? The role of State Empathy’ and Joshua Dooner, ‘What Lies Beneath: Assessing ultrasound based arthritis intervention’

Primrose Hall award for **The Most Publishable Conference Presentation**: Lydia Barnes, ‘Seeing what matters: Familiarity, adaptation and how we read’

And as voted by the cohort, Zeb Caslick-Waller and Hannah George were awarded the Kylie Wilson Award for the support they offered to other Honours students.
The School also commends the Psychology Honours student conference committee, responsible for organising such a successful event and raising significant sponsorship (all in their own time), the hard work and dedication of the Honours supervisors involved, particularly conference organiser Dr Gail Moloney, as well as the generous event sponsors. And of course, we congratulate all the Honours students who participated with such enthusiasm and finesse, making this event, as described by Dr Moloney, ‘the jewel in the crown that is our Honours year’.
Vale, Dr Sonya Brownie

From Professor Colleen Cartwright

Dr Sonya Brownie, a much-loved and highly respected colleague, and friend to many, died suddenly in November. Her total commitment to her work was balanced by her love and dedication to her family. Becoming a grandmother for the first time in 2013, with the birth of Tilly, was a major joy in her life. Sonya had a delightful sense of humour and always used it in a positive way. She was an elegant woman of high intellect and personal integrity, an excellent researcher, a supportive teacher, mentor and supervisor who brought out the best in her students and co-researchers.

Sonya was a qualified naturopath before becoming a staff member of Southern Cross University in 1998, first in the Department of Natural and Complementary Medicine and then in the School of Health and Human Sciences. Her background formed the basis for her research in nutrition and healthy ageing, which then broadened to include aged care and the rights of terminally ill people. Sonya was very well-respected in the healthy ageing and aged care areas of gerontology and had a growing reputation for her research in this field. An indication of this was her invitation to be a keynote speaker at the International Natural Medicine Summit in Sydney in 2013, where she gave two keynote presentations: Optimising Nutritional Wellbeing, and Promoting Elder Rights. The respect of her professional peers outside SCU is evidenced by invitations to be on conference planning and scientific committees. In addition, her ageing-related expertise was receiving recognition in the broader community, with government departments and non-government organisations seeking her advice and input to policy development and strategic thinking.

Sonya was a passionate advocate for the Eden Alternative model of aged care, a client-centred philosophy of care which aims to treat older people with respect and dignity, and help them to find meaning in their lives, even at the very end of life. She was a Board member of Eden Alternative in Australia and New Zealand, and a committee member of the Eden Alternative Research Committee.

Sonya’s other passion, linked to the above but of particular relevance for well older people, was Active Ageing and Lifelong Learning, which is regionally relevant and consistent with international trends in ageing. She developed a well-researched concept paper on this initiative and was working towards its implementation at SCU.
Sonya had over 40 publications and two commissioned reports. Her research output since gaining tenure in 2011 was well above the University and School average and her H Index (an indication of external research recognition) exceeded that of many more senior staff in the School.

Sonya held a number of administrative positions in the School, including the development of the SASS/SHSS Bachelor of Ageing in the Community award, Course Coordinator for the Master of Clinical Sciences award (in which she supervised, supported and encouraged a 97-year-old student to complete his degree). She also served on many other committees and working groups in the School, and always made a significant contribution to discussions and ideas, while always being respectful of other people’s views and opinions. Sonya was the School’s representative on Academic Board and Deputy Chair of the Higher Degree’s Research Training sub-committee.

In addition to her immense professional contribution, Sonya was respected for her straight-talking, for setting high fashion benchmarks for the female staff at the Lismore campus (including encouraging the wearing of shoes, and establishing “skirt Wednesdays”), and her strong sense of nutritional integrity. Sonya volunteered at the Winsome Soup Kitchen for many years on a Friday morning before work; it was not a commitment she easily altered, and was a bit of a balance to skirt Wednesdays – she always dressed down on Fridays! Everyone who came to the soup kitchen, got a smile and a hug from Sonya.

Sonya has left a gap in the lives not only of her family but also of her many friends, colleagues, students and the organisations for which she worked. As one of her colleagues recently said: “I grieve, I cry and I also laugh at the joys she has shared with so many of us.”
Publications


Hutchinson, M. (2014). Around half of nurses and midwives report workplace aggression in the past month: 36% report violence from patients or visitors and 32% report bullying by colleagues. *Evidence-Based Nursing, 17*(1), 26–27.


Webb, G. J., & Egger, G. (2014). Obesity and climate change: Can we link the two and can we deal with both together? *American Journal of Lifestyle Medicine, 8*(3), 200–204.


