



# Health Sciences

## SUITABLE FOR MASTER OF RESEARCH

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Physical Activity Promotion in Western Sydney Early Learning Services: Investigating Early Learning Staff and Parent Practices and Perceptions

Dr Amit Arora: [a.arora@westernsydney.edu.au](mailto:a.arora@westernsydney.edu.au)

Research area: Public health

The current project is a project of the Western Sydney University and Population Health Partnerships, Healthy Lifestyle Group. In 2012, Western Sydney University and NSW Health Executive signed a memorandum of understanding aimed at increasing the health and wellbeing of staff, students and the community of Western Sydney University. UWSELL are a part of this community.

The project aims are:

- 1) To conduct a formative evaluation of current physical activity promotion practices and perceptions within early learning settings;
- 2) To establish a collaboration between university, health district and educational sectors; and
- 3) To increase opportunities for efficacious mandatory student placements for Western Sydney University students.

In brief, the project will contain the following components:

- UWSELL staff survey - All staff members of UWSELL will be given the opportunity to complete a 20-minute survey that examines current beliefs, practices and experiences regarding young children's physical activity.
- UWSELL parent survey - All parents of children who are independently mobile will be given the opportunity to complete a 20-minute survey that examines current beliefs, practices and experiences regarding young children's physical activity.
- Children's physical activity assessment – Children's physical activity will be assessed using accelerometers, small matchbox sized devices that are worn on an elastic belt around the hip. These devices are non-invasive and have been used in studies involving thousands of toddlers and preschool aged children.

The proposed outcomes of the project include:

- 1) Improved understanding of current physical activity promotion practices and perceptions within early learning settings;



- 2) Develop partnerships across organisations/disciplines to increase all members' knowledge and skills; and
- 3) Provide efficacious workplace placements for Western Sydney University students.

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### Motivations of Animal Therapy Handlers

Dr Nicole Peel: [n.peel@westernsydney.edu.au](mailto:n.peel@westernsydney.edu.au)

Research area: Health science

This project will explore the motivations, meaning and experiences of animal-assisted activities for dog handlers engaging in an animal-assisted activity program.

We are seeking a motivated candidate to undertake a small research project working with animal therapy organisations where you will research animal dog handlers. You will be expected to undertake a literature review, data collection and data analysis for the project, using either qualitative or quantitative methods.

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### **SUITABLE FOR MASTER OF RESEARCH OR PHD**

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### Enablers and Barriers to Accessing and Implementing Bright Smiles Bright Futures Program in NSW Primary and Preschool Settings

Dr Amit Arora: [a.arora@westernsydney.edu.au](mailto:a.arora@westernsydney.edu.au)

Supported by: Dr Rhiannon White

Research area: Public health, Education

Dental caries (tooth decay) is one of the most prevalent non-communicable diseases of global public health concern affecting children. A recent global burden of disease survey reported an estimated 530 million children had tooth decay in their primary (baby) teeth. According to Australian National Child Oral Health Study (NCOHS) 2012-2014, more than 25% children aged 5-10 years had untreated dental caries in their primary teeth and approximately one in ten children aged 6-10 years had dental caries in the permanent teeth. Untreated dental caries impacts child quality of life (including overall health and wellbeing, growth and development, social interaction ability and poor school attendance).

Despite the high burden of dental caries in Australian children, it is worthy to note that dental caries is preventable. Effective preventive measures for dental caries in children require adoption of good oral hygiene and dietary practices such as a low sugar diet,



regular toothbrushing with age-appropriate fluoridated toothpaste and regular dental visits.

In 1991, Bright Smiles Bright Futures (BSBF) program was initiated by Colgate-Palmolive Pty. Ltd. to serve underprivileged children worldwide. The main goal of the program has been to equip children and their families with basic good oral health sustainability and oral disease prevention techniques. The program provides free educational materials in 30 different languages, served over 80 countries, and has impacted the lives of over a billion of children. In the United States, BSBF Colgate's classroom curriculum has been distributed to 40 million children, in all 50 states. In Oceania, the BSBF program has successfully reached over 8.9 million children in Australia and 2.9 million children have been contacted in New Zealand.

Although, the BSBF program has been implemented worldwide, there is a limited data available from Oceania on perceptions of primary school and preschool teachers, children, and parents on the program content, and implementation strategies to embed the BSBF program in pre-schools and primary schools in Australia. To ascertain the effectiveness and success of the BSBF program, their perceptions act as a key influencer and therefore need to be evaluated. This project in partnership with Colgate Palmolive Pty. Ltd. will address this gap.

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The Role of Oral Health Care Professionals in Preventing and Managing Obesity

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Research area: Public health

The increased burden of obesity threatens the existing healthcare system in both developed and developing countries. Therefore, tackling obesity through innovative health policies, multidisciplinary health care interventions, and environmental and behavioural changes is crucial.

In recent years, primary health care providers have been encouraged to integrate anthropometric assessments and health promotion advice on nutrition and physical activity, into their routine scope of practice. However, compliance to such recommended practices receives a lower priority, primarily because of health care providers' time constraints. Lately, there has been a renewed interest in expanding the role of oral health care professionals (OHCPs) in anthropometric assessments and obesity management. Therefore, primary healthcare professionals such as dietitians, nutritionists, and OHCPs have a significant role to play in the prevention and management of public health issues such as obesity.

To date, studies have examined obesity-related formal training for OHCPs, skills and tools that OHCPs require to promote dietary changes, as well as their efforts both at the policy and practice level, to provide health assessment and patient counselling services for various medical conditions including obesity. A large proportion of people visit



dental practices annually in many countries, and OHCPs are already actively involved in providing nutritional advice in their routine scope of practice. Hence, utilization of OHCPs in identifying individuals at-risk for obesity, and providing healthy weight interventions, can potentially support the primary health care providers in reducing the burden of obesity and its subsequent comorbidities.

Few studies conducted worldwide have assessed the current practices of OHCPs relating to anthropometric assessment, and weight management counselling and specialist referrals services specific for patients with overweight and obesity. However, no studies have been conducted in Australia to explore current practices and barriers in this area. Therefore, this study aims to explore current practices of OHCPs for anthropometric assessment and management of overweight and obesity in dental settings, and perceived barriers against such practices.

The aims of the study include:

- To explore current practices of OHCPs for prevention and management of obesity including the activities of anthropometric assessment;
- To identify facilitators and barriers in carrying out these obesity preventive services in oral health settings; and
- To identify strategies that engage and motivate OHCPs for offering these services at their oral health clinics.

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Healthy Smiles Healthy Kids Birth Cohort Study

Dr Amit Arora: [a.arora@westernsydney.edu.au](mailto:a.arora@westernsydney.edu.au)

Research area: Public health

The Healthy Smiles Healthy Kids Project is high quality, multi-centre, birth cohort study in Greater Western Sydney, with an aim to address socio-economic inequality in health among children. Over 1000 mother-infant pairs in the former Sydney South West Area Health Service were recruited to this study in 2010 and have been followed up at regular intervals since then.

The project has a wealth of life-course data on socio-economic, behavioural, psychosocial, bio-medical determinants on children and their siblings over the 10-year period. Data includes information on infant feeding, diet, health service use, residential movements, environmental exposure, physical activity, sedentary behaviour, quality of life, health literacy, and child health outcomes at several time-points over the 10-year study period.

Our work focuses on those with disproportionately high rates of obesity, dental decay, poor nutrition, low socioeconomic groups, migrant populations and those with low levels of health literacy. Expertise within our team spans chronic disease epidemiology, nutrition, integrated care service development, lifestyle behaviour change and



monitoring, maternal and child health, cultural tailoring of interventions, community-engaged research, and health services research.

A number of existing and new opportunities are available that can be determined in consultation with the supervisory panel and is subject to research interest of the potential student given the wide scope of the data. The candidate will work with a multi-disciplinary team and maintain partnerships with research participants, University of Sydney, University of Technology Sydney, University of New South Wales, University of Adelaide, Curtin University, Sydney Local Health District, and South Western Sydney Local Health District.

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"Teaching an old dog new tricks": Revamping Education for People with Chronic Respiratory Disease

Dr Clarice Tang: [clarice.tang@westernsydney.edu.au](mailto:clarice.tang@westernsydney.edu.au)

Research area: Chronic disease management, Education

Patient education is a key to chronic disease management, with the aim to impart knowledge to patients so as to help them establish positive lifestyle changes and better managed their health condition. Health professionals have developed many resources to improve patient education. Using pulmonary rehabilitation as an example, an-hour patient education session is scheduled weekly as part of the 8-week program for people with chronic respiratory diseases. Despite the amount of effort health professionals dedicated to patient education, effect of education on chronic disease management remains to be minimal.

The lack of patient input and the didactic modes of delivery of education may be reasons why the effect of education has been minimal. More importantly, the education is often not tailored to the individual resulting in poor engagement with the overall curriculum.

The project will present an opportunity to explore how we can apply adult learning theories to revamp education for patients with chronic respiratory disease. More importantly, it presents new opportunities to evaluate innovative educational strategies that have never been applied to patient education. The results of this project has the potential to be a game changer in improving the effect of education on chronic respiratory disease management. To do so, you will have the opportunity to be well supported by a team of academics and clinicians that are passionate in patient education.

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## Supporting People from CALD Communities to Access Virtual Care

Dr Clarice Tang: [clarice.tang@westernsydney.edu.au](mailto:clarice.tang@westernsydney.edu.au)

Research area: Telerehabilitation

COVID-19 has resulted in the rapid transition in delivery of healthcare services, giving rise to the significant shift of using telerehabilitation. While telerehabilitation has been found to be a useful alternative to traditional face-to-face model of care, there are ongoing concerns that this shift in model of care will leave some vulnerable populations such as people from CALD communities behind.

Anecdotal observations from clinicians have raised concerns that people from CALD communities do not participate in telerehabilitation. However, reasons as to why this may be the case remains unclear. Considering the overwhelming support for telerehabilitation to continue as part of health service delivery, there are growing concerns that this push will further widen the existing health disparities for the various CALD communities.

This project offers an exciting opportunity for a student to make a difference through exploring new ways of supporting people from CALD communities to access virtual care. You will have an opportunity to work closely with a team of academics within the School of Health Sciences and health professionals.

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## Sports Stars: Developing Pathways for Children with Disabilities to Enter into and Sustain Participation in Community Sport

Dr Georgina Clutterbuck: [g.clutterbuck@westernsydney.edu.au](mailto:g.clutterbuck@westernsydney.edu.au)

Research area: Disability, Physical recreation and sport, Physical activity, Participation

The Sports Stars project is a global, multidisciplinary project investigating the effect of a practitioner-led, peer-group sports intervention to support the transition of children with disabilities from receiving individual allied health interventions, to participating in long-term, enjoyable community sport and physical recreation.

Sports Stars was initially researched in QLD Australia for ambulant children with cerebral palsy, however is currently undergoing investigation in rural/regional Australia for children with a range of disabilities, and in Brazil for children with cerebral palsy, and children with Autism. In addition to direct research on the effectiveness of the Sports Stars intervention, our research group is working on projects to develop a comprehensive assessment of sport and physical recreation participation, and validating tools to measure physical literacy in this context.

There is enormous scope for a PhD or MRes project to investigate the effectiveness of Sports Stars in other populations, such as children with spina bifida, or children who are semi-ambulant or non-ambulant. There are also a number of opportunities to



investigate the cost-effectiveness Sports Stars considering long-term benefits of participation in physical activity, the role of practitioner-led sports groups as a transition between the sport and health sectors and the psychometric properties of new assessments designed to measure change in this field.

In this research project the candidate will have the opportunity to work with a global, multidisciplinary team and to impact the long-term health and well-being of children with disabilities.

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Creativity, Movement, and Sport. Can they be friends?

Dr Kylie Steel: [k.steel@westernsydney.edu.au](mailto:k.steel@westernsydney.edu.au)

Research area: Motor learning, Skill acquisition

Creativity is a term often used within the arts, but rarely in sport. However, creativity simply refers to finding unique solutions to unique problems. Sport certainly provides many unique situations for tactics and movement that need to be solved in short time periods.

Can diverse training and learning experiences increase the creative movement abilities of athletes? This project will explore this question using a mixed method approach.

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Culture Clash? An Investigation of the Constructions, Understandings and Experiences of Sexual and Reproductive Health from the Perspective of 1.5 Generation Migrants in Greater Western Sydney

Dr Tinashe Dune: [t.dune@westernsydney.edu.au](mailto:t.dune@westernsydney.edu.au)

Supported by: Dr Zelalem Mengesha

Research area: Health sociology, Health psychology

This project aims to define the key aspects of culture and its messages about sexuality which help to shape how people who left their country of origin and migrated to Australia before completing puberty/adolescence (1.5 generation migrants) understand and experience SRH. Further, this project will explore the cohort's SRH help-seeking behaviours, utilisation of SRH services as well as the barriers and facilitators to access and utilisation of SRH services. In doing so the project seeks to make recommendations about the development and delivery of culturally-appropriate SRH services towards increasing help-seeking and overall population health.

The cohort of interest is referred to as the 1.5 generation migrants as they are not the conventional first generation migrant, who are old enough to emigrate on their own,



nor are they the conventional 2nd generation migrant, the offspring of the 1st generation migrant born in the country of emigration.

Greater Western Sydney is the key area of focus in this study as more than 50% of its, approximately, 800 000 people are migrants or their descendants (Australian Bureau of Statistics (ABS), 2011). Further, Greater Western Sydney has been found to have pockets of cultural concentration which allows migrants to stay connected to key aspects of their culture such as their ethnicity, community, language and religion. To that effect it is likely that the cultural and religious norms of their country of origin remain strong and may therefore have a significant influence on how 1.5 generation migrants construct, experience and understand various aspects of SRH. In addition, 1.5 generation migrants have entered a new cultural environment, with its own set of constructs of SRH, at a crucial time in their psychosexual development - puberty/adolescence. This may result in having learnt and being expected to uphold (by other members of one's cultural community) the norms about SRH (see Minnis et al., 2010) from their culture of origin while at the same time adopting and enacting Australian constructions of SRH (see Dune et al., 2015). As such, 1.5 generation migrants may have to contend with constructions of SRH from at least two cultures which may be at conflict on the matter - a culture clash.

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Foster Carers Digital Literacy

Dr Nicole Peel: [n.peel@westernsydney.edu.au](mailto:n.peel@westernsydney.edu.au)

Research area: Health, Education

Young people in foster care are reported as one of the most vulnerable and disadvantaged social groups. This project will start to review the information and digital literacy of foster carers.

This project is part of a larger project aiming to make a change in the pre and post-transition of children and young people in foster care to an independent life. This study will involve a literature review and/or data collection on the use of digital technology by foster carers towards health outcomes.

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Greater Western Sydney Workforce Project

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Supported by: Professor Andrew Page

Research area: Health service, Health workforce, Primary health

The aim of this project is to plan for the primary health workforce in the Greater Western Sydney areas for the next decade. You will be working with a multidisciplinary





team from School of Medicine, WentWest, South Western Sydney PHN, Nepean Blue Mountain PHN, and other stakeholders.

The project can be scoped to suit the candidate's career aspiration and strengths.

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Nature-based Solutions for Health and Wellbeing

Dr Arianne Reis: [a.reis@westernsydney.edu.au](mailto:a.reis@westernsydney.edu.au)

Supported by: Dr Nicole Peel and Professor Tonia Gray

Research area: Nature-based recreation

With an ever growing demand for mental health services and a sector that struggles to have the available resources to meet this demand, there is a pushing agenda to ensure that we review all approaches that may be available to improve individuals' mental health and wellbeing.

There is burgeoning interest in the benefits of being in nature within the literature; however, studies are limited and dependant on individual interventions. There is a need to undertake a larger scope and analysis of the wider benefits for health and wellbeing that nature immersive activity brings.

This project is part of a larger collaborative project between the School of Education and the School of Health Sciences as a foundation for a repository and dissemination of research on the connections between nature and health to assist practitioners who work in this space. The study will involve a comprehensive audit of tools used to assess the effectiveness of nature-based activities/interventions on improving mental health and wellbeing, as well as primary data collection surveying researchers and practitioners on their views of these tools and associated interventions.

The methodology adopted will depend on the level of the project (i.e. PhD or MRes).

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Value for Whom?

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Supported by: Dr Stewart Alford

Research area: Health service, Health policy, Health management

There is much interest in value-based healthcare as a better way of funding and structuring health services, and better health outcomes for the consumers. The concept of 'value' or health outcome that matters to the consumers is multi-dimensional as it encompasses not only clinical indicators but may also include other factors such as quality of life, productivity, consumer's experience, and meaningful engagement which



can and do change throughout the course of a consumer's life and care journey. This program of research aims to evaluate this popular contemporaneous health system theory. The project will be scaled to the candidate's ability and career intention.

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The Same But Not Quite... Biosimilars Awareness in Australia

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Research area: Health law, Health services, Health policy

Biological medicines are pharmaceuticals containing one or more active substances made by a biological process or derived from a biological source rather than by chemical synthesis. They have been in existence for several decades and some examples are vaccines, blood components, hormones, and antibodies. The global biologics market is estimated to be worth some US\$400 billion by 2025.

Biosimilars are biologics that have been able to demonstrate a high enough degree of similarity to an originator (or "reference") biologic to achieve market approval. Biosimilars have the potential to bring great savings to consumers, but uptake has been slow for a range of reasons.

This program of research is brand new in Australia. The candidate will work with an international expert supervisory panel, the scope of work will be scaled to suit the candidate's abilities and career intention. Outcomes from the preliminary work have already informed policies and practice.

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Australian Rural Training Hubs

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Research area: Health service, Health economic, Workforce development, Evaluation

The Australian Government has invested in the creation of rural training hubs across Australia so as to increase the size and distribution of a well-trained rural and remote medical workforce. This research aims to evaluate the effectiveness and economic benefits of this initiative.

The candidate will be working with a multidisciplinary team, based across different jurisdictions to complete this important health service and health policy research.

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Dispensing Dentist

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Research area: Health policy, Health service

The separation of prescribing and dispensing pharmaceutical benefits by medical practitioners has been entrenched in the European healthcare system since the 13th century. However, the practice of pharmacist prescribing, doctor dispensing and dentist dispensing remains. This brand new program of research aims to inform the Government policy and the Australian Dental Association's position on the dentist dispensing medicines in their dental practice.

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Reach for the Stars: Factors that Sustain Indigenous Youth Mentoring Programs

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Research area: Indigenous health, Health service, Adolescent health

The United Nations has garnered a global action to address Indigenous youth suicide and suicidal behaviour. Indigenous youth mentoring programs aimed at improving mental health and reducing suicide rates have been conducted at smaller scales worldwide. Mentoring is culturally appropriate as it empowers communities and aligns with the principles of community, teaching and learning, kinship, and holistic health. There is a gap in the understanding of what the barriers and enablers of mentoring are in addressing Indigenous youth mental health and, ultimately, Indigenous youth suicide.

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Avoidable Emergency Department Presentation and Hospitalisation for Individuals Living with Disability

Dr David Lim: [david.lim@westernsydney.edu.au](mailto:david.lim@westernsydney.edu.au)

Research area: Emergency medicine, Health service, Health management, Disability

Persons with disability seek more health care than people without disability, and are consistently over-represented in hospital admissions and face undesirable situations. This proposed program of research is an extension and combination of an existing staff specialist project examining the appropriate use of the Emergency Department, and an Honour project on health and support service needs of individuals with disability.

A number of existing and new opportunities are available in consultation with the multi-jurisdictional supervisory panel, subject to the research interest and career intention of the potential applicant. The candidate will explore a real-world problem, gain experience in working with diverse stakeholders and generate evidence to influence policy change.



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Ethical Courage and Resilience: Caring and Leading in Complex Healthcare Environments

Dr Belinda Kenny: [b.kenny@westernsydney.edu.au](mailto:b.kenny@westernsydney.edu.au)

Research area: Ethics in health professional practice

Health professionals are constantly making decisions that involve ethical reasoning. They need to decide which clients will be prioritised and the critical ingredients for quality health services. Sometimes, health professionals do not have resources available to provide optimal intervention or they are working with individuals or families whose values may be quite different to their own. Finding a balance between safety and supporting informed choice may be another challenging area of practice. These are examples of ethically troubling aspects of professional practice.

When health professionals are equipped with the skills to manage ethical issues, a strong ethical culture guides workplace decisions. However, when ethical dilemmas remain unresolved, health professionals may experience moral distress and there may be negative consequences for client care. We need to find ways to help health professionals raise ethical concerns and support team members who are managing ethical conflict.

This project will focus on developing ethical reasoning skills and resilience within healthcare teams. During this project, you will work with your supervisor and a health care team to develop ethical decision making strategies to manage complex ethical dilemmas and build proactive approaches to ethical practice.

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Rehabilitation to Promote Daily Functioning in People with Brain Cancer

Professor Karen Liu: [karen.liu@westernsydney.edu.au](mailto:karen.liu@westernsydney.edu.au)

Research area: Brain cancer, Daily functioning, Rehabilitation

Depending on the area of the brain affected, individuals with brain cancer can experience changes in their cognitive and/or motor abilities, impacting their ability to engage in daily functioning. Rehabilitation strategies such as self-regulation and mental imagery have been shown to improve functional performance for individuals post stroke.

This project will investigate the rehabilitation strategies and develop a rehabilitation program that are useful to enhance the functioning of people with brain cancer.

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## Changing Lives for Children and Families in Foster Care

Dr Nicole Peel: [n.peel@westernsydney.edu.au](mailto:n.peel@westernsydney.edu.au)

Research area: Public health, Health science

When young people in foster care in Australia reach the age of eighteen years their supporting family ceases to be eligible for any financial assistance and guardianship responsibility ends because the fostered adolescent is removed from the care system at that age and becomes known as a care leaver. The foundations for behaviours that continue into adulthood occur during childhood and adolescence. Adolescence is an ideal time to ensure good foundations and behaviours with the assistance of supportive adults and mentors (Steinberg, 2015). Adolescence is a time in life that can be most challenging for individuals and those involved with them. Adolescence is a period for not only physical and sexual maturation, but the opportunity for experiences that move individuals toward social and economic independence, with the development of identity and the acquisition of skills needed to be an adult. It is also a time when considerable risk may be taken during social situations (World Health Organisation, 2016). For the majority of adolescents in foster care who must leave at age 18 familial support will be forfeited.

Osborn and Bromfield (2007) reported that young people in care are one of the most vulnerable and disadvantaged social groups. Care leavers are more likely to be negatively involved with the justice system, be a young parent and to experience mental health issues or undertake risky behaviours (Courtney, Dworsky, Cusick, Havlicek, Perez & Keller, 2007). Young people who have been transitioned from care are at risk of social exclusion, poverty and poor outcomes in later life (Munro & Stein, 2008). One of disadvantages and vulnerabilities noted above is an underrepresentation in vocational and higher education with care leavers entering higher education later than their peers; they are also known to have poorer educational outcomes compared to their peers (Cashmore & Paxman, 2006).

This project is suitable for you to choose your own research outcome or take up a component of an ongoing larger project for children, young people, their birth families and foster families to understand their wellbeing and how this can be of benefit for changes in their future.

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## Health Promotion through Sport Coaching: An Aboriginal and Torres Strait Islander and Coach Mentoring Project

Dr Andrew Bennie: [a.bennie@westernsydney.edu.au](mailto:a.bennie@westernsydney.edu.au)

Research area: Aboriginal and Torres Strait Islander sport and health

This research project will involve the design and delivery of an innovative mentoring program that takes a unique approach to Aboriginal and Torres Strait Islander



community development by educating sport coaches to promote health within their communities through their sporting contexts.

For many years, sport has been used as a tool to connect Aboriginal and Torres Strait Islander communities with health, social, education, and employment opportunities. Currently, there are a broad range of worthwhile sporting programs delivered within Aboriginal and Torres Strait Islander communities that focus on youth development, elite athletic performance, and school to work transition. However, there are no programs that utilise sport coaches as health promoting agents within Aboriginal and Torres Strait Islander communities.

Informed by the Ngaa-bin-ya health and social program evaluation framework (Williams, 2018), this study will take place within and with the support of various Aboriginal and Torres Strait Islander sporting clubs across a sports season. The coaches will receive formal coach accreditation training alongside a series of educational workshops related to Aboriginal and Torres Strait Islander socioemotional wellbeing. They will then be mentored by Indigenous and non-Indigenous sports coaches to develop their coaching capacity across a season.

Data will be collected via mixed methods including interviews during and post-season, observations of coaches during training and competition fixtures, as well as post workshop surveys so as to gather data about the program's impact on the coaches, their players, and local community.

This research will consider multiple team and individual sports, working with community based and professional sport organisations. Existing relationships include Netball Australia, Netball NSW, AFL NSW/ACT, National Rugby League, Australian Rugby Union, Athletics Australia, Football NSW, Football Federation Australia.

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The Relationship Between Different Types of Physical Activity and Mental Health

Dr Rhiannon White: [rhiannon.white@westernsydney.edu.au](mailto:rhiannon.white@westernsydney.edu.au)

Research area: Physical activity, Mental health

The mental health benefits of physical activity are well established. However, it is important to understand how context may influence the relationship between physical activity and mental health so that interventions and policy guidelines can be tailored to maximise positive effects. Current evidence suggests that leisure-time physical activity is associated with stronger mental health benefits than some other types of physical activity (e.g., household physical activity, work physical activity, and sometimes active transport) however, very little is known about work-related physical activity and, why some types of physical activity are more beneficial.

There are numerous project possibilities within this area of research including for example:



- Examining the relationship between work-related physical activity and mental health among people with different types of occupations to identify which occupations have a positive relationship between physical activity and mental health.
- Investigating whether motivation influences the relationship between different types of physical activity and mental health.
- Examining a range of factors that explain the varying strengths of association between physical activity and mental health.
- Determining whether indoor (e.g., cleaning and parenting) and outdoor (e.g., gardening) household physical activity have the same, or different, relationships with mental health, and why.

This area of research helps to identify the types of physical activity that are likely to be the most effective in promoting mental health and preventing mental ill-health.

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Motivation, Physical Activity, and Embarrassment in School Physical Education

Dr Rhiannon White: [rhiannon.white@westernsydney.edu.au](mailto:rhiannon.white@westernsydney.edu.au)

Research area: Exercise psychology, Physical education

Not only does school physical education provide children and adolescents with opportunities to engage in physical activity, but positive physical education experiences contribute to positive attitudes towards physical activity more generally. However, despite the great potential that physical education occupies, many students report negative attitudes towards, and experiences of, physical education. This area of research attempts to understand how motivation leads to more active and more enjoyable physical education experiences, and better mental wellbeing. This area of research also includes examining factors that contribute to poor experiences of physical education, such as embarrassment and poor competence, and trying to determine the different peer and teacher behaviours that lead to these negative experiences.

There are numerous project possibilities within this area of research including for example:

- Examining whether embarrassment is associated with reduced physical activity during physical education lessons.
- Qualitatively investigating student perceptions on the causes of embarrassment within physical education.
- Assessing whether competence and levels of fundamental movement skills predict lower levels of embarrassment.
- Examining whether higher autonomous motivation is associated with lower embarrassment and improved wellbeing.
- Examining motivational and psychological differences between different sports and activities that are common in physical education.



Understanding how to reduce embarrassment, increase motivation, increase physical activity within PE, and improve adolescents' attitudes towards physical activity by providing positive emotional experiences in PE, has the potential to immensely improve both physical and mental health.

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Modification of gait biomechanics improves patients with hip osteoarthritis

Professor Roy Cheung

Supported by: Associate Professor Rosa Chan

Research area: Walking gait retraining, Wearable sensors

This project is a natural extension of Professor Cheung's previous work on patients with knee osteoarthritis (OA). The core objective of this study is to conduct a proof-of-concept study for the gait retraining program for patients with hip OA. The student is also expected to design a biofeedback device for training outside the laboratory environment.

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The Effect of Smoking and Alcohol Intake on Breastfeeding Outcomes in Australian Women

Dr Amit Arora: [a.arora@westernsydney.edu.au](mailto:a.arora@westernsydney.edu.au)

Research area: Public health

There is overwhelming evidence to support the benefits of breastfeeding. The World Health Organisation states that all mothers should only feed their infant breastmilk until six months of age and that mothers can introduce solid food around six months and can continue to breastfeed up until 2 years of age.

This project will use existing data from a longitudinal study in South West Sydney to assess the impact of behavioural risk factors such as smoking and alcohol consumption on breastfeeding outcomes for Australian women. It will also identify the patterns of infant feeding behaviours in mothers who smoke or consume alcohol and mothers who did not smoke or consumed alcohol during pregnancy and after giving birth. Students will be trained on how to use statistical software such as SPSS and/or STATA.

The findings will be important to the state and federal government to identify policies that governments should adopt on smoking cessation and safe alcohol consumption when mothers are breastfeeding. Students should also have an interest in women's health and children's health.

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**SUITABLE FOR PHD**

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N/A - Visit our [find a supervisor page](#) for further advice.

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