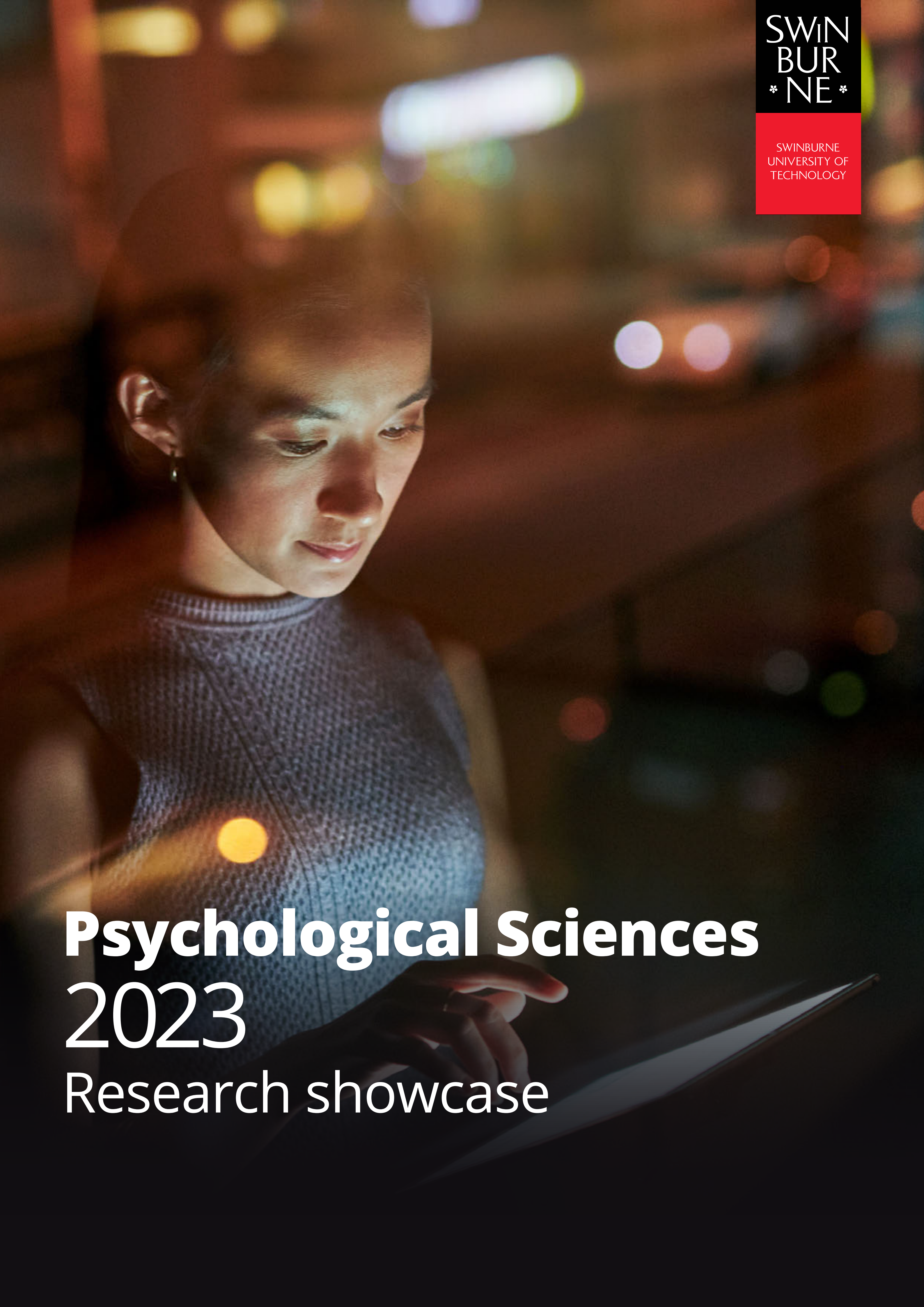

SWINBURNE
UNIVERSITY OF
TECHNOLOGY

Psychological Sciences

2023

Research showcase

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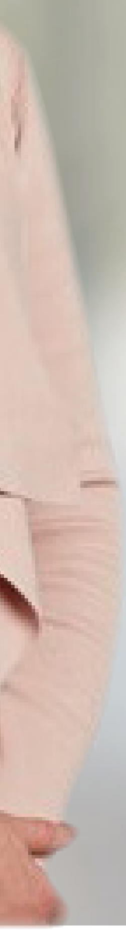


It is an honour to lead the Department of Psychological Sciences at Swinburne University. Our researchers are among the best in the world, producing life changing evidence to improve our understanding and treatment of psychological disorders, improve wellbeing, and bridge the human-technology interface by providing cutting-edge person-centred research of the human potential and interface with digital and technological innovations.

Our achievements are due to the combined research outputs of our research active staff, who are practicing psychologists and psychological scientists who collaborate with students and industry to translate knowledge into action, create social impact and develop new and innovative psychological theories and solutions to real-world problems.

After reading the magazine, there will be no doubt in your mind that the Psychological Sciences at Swinburne is an important STEM discipline, that contributes to the success of national efforts to drive innovation and change across a range of social and environmental issues. Psychology, as celebrated by the American Psychological Association, contributes significantly to direct scientific and technological innovations, and makes indirect contributions to education and learning in science and technology. The achievements of psychological science include designing new technologies for greater effectiveness, promoting public safety, improving public health, introducing new statistical techniques and developing educational innovations to improve scientific literacy – to name a few.

As a thriving group of psychological scientists, the Department of Psychological Sciences takes pride in the contributions we are making to Swinburne's vision to be the University of choice to provide evidence and expertise to support society's increasing need for transformative technology and for the human capital and talent to leverage it. We are also proud of our Excellence in Research Australia five-out-of-five ranking of research excellence, placing us at the top level of research excellence: above world standard, and our many national and international Awards for our outstanding research and development initiatives.

On behalf of the Department, I am proud to present the 2023 Department of Psychological Sciences Research Magazine which showcases a snapshot of our work. Enjoy.

Enjoy.

Best regards,

Associate Professor Monica Thielking
Chair of the Department of Psychological Sciences
Swinburne University of Technology
mthielking@swin.edu.au

Applying Patient-centred Behavioural Change Approach: Motivational Interviewing to Improve Medication Adherence in Cancer

- Penelope Schofield (Dept of Psychology)
- Thu Ha Dang (Dept of Psychology)
- Chris Ludlow (Dept of Psychology)

Sub-optimal medication adherence negatively impacts the health outcomes of patients and healthcare costs. Studies have shown that poor adherence to prescribed regimens can significantly relate to low survival rates, disease progression, and low quality of life.

Medication non-adherence can be classified into two broad categories: intentional and non-intentional. Intentional non-adherence, which leads to about half of non-adherence cases, is a result of patients' conscious decisions. Changing intentional non-adherence behaviour is a big challenge for oncology clinicians, requiring new psychological approaches that go beyond the traditional consultation style. Motivational Interviewing (MI) is an evidence-based collaborative counselling style that aims to strengthen a patient's motivation and commitment to change, and can potentially improve patients' abilities to self-manage long-term conditions and adhere to medication

Penelope is a Professor in psychology and one of the first Australian scholars to apply MI in promoting medication adherence. Chris is a clinical psychologist with over 10 years of practising MI skills in patients' consultations, both in Australia and the UK. Thu Ha Dang is a medical doctor by training and a digital health PhD candidate. Her research focuses on a patient-centred comprehensive digital intervention solution to improve medication adherence among adults with cancer (SAMSON), in which the MI training platform is one of two research components.

An innovative feature of our research is applying the co-design and design sciences research methods in the development of the training platform and the strong collaboration and endorsement of Peter MacCallum Cancer Centre (Peter Mac) in this project. The co-design focuses on challenges and issues from end-user's perspective to develop designing solutions to enhance desirability, acceptability and usability of the solutions in iterative cycles, thus increasing the quality and applicability of the research. Peter Mac is a leading reputable oncology institution in Australia and worldwide. The involvement of leading experts in the disciplines of digital health, oncology and psychology guarantees our solution is based on up-to-date evidence and rigorously tested. In addition, it will ensure the MITP 'buy-in' at Peter Mac, which is critical for the success and sustainability of the project in the future.

To date, the MITP has been co-designed through iteratively processes and includes core modules of medication adherence, communication skills, MI and applied examples of these skills in practice. The platform initially received positive feedback and endorsement from Peter Mac clinicians. In the next few months, the MITP will be officially uploaded to Peter Mac learning management system for testing among healthcare professionals. In 2023, a pilot randomized controlled trial will be conducted to test the acceptability, usability and potential efficacy of the SAMSON in people with cancer.

The project is co-funded by Digital Health Cooperative Research Centre, Peter MacCallum Cancer Centre and Swinburne University of Technology.

MI - summary of key elements

R	**Resist** telling patients what to do
U	**Understand** patient's motivation
L	**Listen** with empathy (Reflective listening)
E	**Empower** patients

For further information about this research please contact Penelope Schofield, pschofield@swin.edu.au

Hallucinations: Beyond voices in the psychotic disorders

■ Wei Lin Toh (Centre for Mental Health)

The experience of hallucinations refers to sensory events perceived in the absence of corresponding external stimuli, and can involve one or more of our basic senses. For example, this can include seeing images or hearing sounds that others do not. Most studies to date have focused on understanding auditory hallucinations in the context of psychotic disorders, where up to 80% of those diagnosed with schizophrenia report hearing voices. Yet despite being a characteristic symptom of the psychotic disorders, hallucinations are also experienced across a range of other psychiatric and neurological conditions.

Existing studies examining hallucinations in neurological disorders have mostly focused on visual hallucinations (analogous to the emphasis on voices in schizophrenia), to the exclusion of other sensory domains. We thus attempted to achieve a more inclusive understanding of hallucinatory experiences in two neurological conditions – Parkinson’s disease (degenerative) and migraine (non-degenerative).

Our systematic review examining non-visual hallucinations in Parkinson’s disease found that these were prevalent to varying extents (auditory 1.5-72.0%, olfactory 1.6-21.0%, somatic-tactile 0.4-22.5%, gustatory 1.0-15.0%). Phenomenological inquiries revealed descriptions of vivid, consuming events replete with elaborate detail, adversely affecting Parkinson’s patients in different ways. Overt experiences of multisensory hallucinations were also common. We concluded that their prevalence coupled with phenomenological descriptions implicating distress denote that non-visual and multisensory hallucinations in Parkinson’s disease are of clinical significance, necessitating more research and clinical attention for their study and management.

Our online empirical study investigating multisensory ‘aura’ experiences in migraine as well as their phenomenological and clinical correlates also yielded notable findings. Prevalence of non-visual hallucinations were heightened (auditory 11.0%, olfactory 18.6%, somatic-tactile 32.0%, gustatory 21.9%). Furthermore, somatic-tactile and gustatory hallucinations exhibited significantly greater duration and negative emotional valence relative to experiences in other sensory modalities. These results tentatively indicate that non-visual hallucinations in migraine are common, and benefit from being recognised as ‘aura’ symptoms. Increased clinician-patient awareness and effective management are essential for a holistic therapeutic approach to migraine.

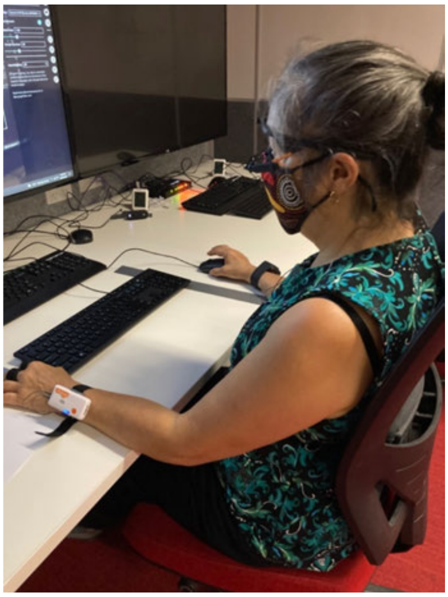
Taken together, these studies suggest that hallucinations research needs to move beyond a focus on voices in the psychotic disorders to encompass broader anomalous perceptual events across other conditions, as there is much that we still need to discover and learn.

For further information about this research please contact Wei Lin Toh, wtoh@swin.edu.au

Artificial Intelligence as the Most Valuable Player: enabling cyber-human teams to achieve decision superiority

■ Dr Lisa Wise (Department of Psychological Sciences)
■ Professor Christopher Fluke (Centre for Astrophysics and Supercomputing)

Human performance in time-critical decision making is influenced by a combination of mental workload, stress, situational awareness and expertise. Decision-making processes in high-risk, time-pressured scenarios are now regularly supported by artificial intelligence (AI), however, the integration of computational support through the inclusion of one or more AI team members needs to be approached thoughtfully.

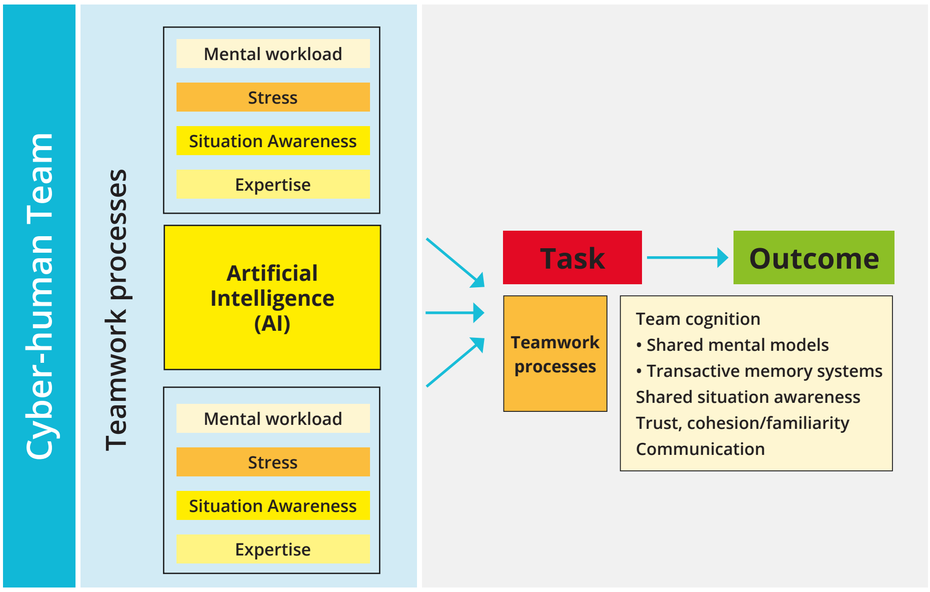


This project aims to:

- investigate the role of an AI team-member as a monitor of individual decision-making performance
- study the characteristics of effective cyber-human teams through the integration of an AI team-member
- explore the role of an AI team-member in human-machine teams where the AI is the most valuable player (MVP).

In a partnership between Swinburne University and La Trobe University, that has been supported by the Next Generation Technologies Fund since 2020, this project takes a deliberate transdisciplinary approach. Led by Professor Christopher Fluke of Swinburne's Centre for Astrophysics and Supercomputing, the team includes Dr Lisa Wise, from the Department of Psychological Sciences, along with La Trobe University colleagues Dr Lucy Parrington and Associate Professor Clare MacMahon (project co-lead) to provide expertise in cognition and human performance. The project brings together additional expertise from across Swinburne in data analysis, data science and machine learning (Dr Sara Webb, Sarah Hegarty), human factors (Dr Matt Ebbatson), human-computer interaction (Prof Jeni Paay), artificial intelligence (Prof Ryszard Kowalczyk, now at UniSA) and computer vision (A/Prof Chris McCarthy). An early phase of the work benefited from contributions by former Swinburne Babylab postgraduate student Dr Brittany Huber.

If successful, this research could provide methods for designing intelligent agents that are not only human-centred but are team-centred, supporting human and AI teams that are able to achieve decision superiority by enabling Human-AI to function at greater scale and operational complexity.



For further information about this research please contact Dr Lisa Wise, **cfluke@swin.edu.au**

Brainwaves: Broadcasting our research to the community

- Julian Oldmeadow (Department of Psychological Sciences)
- Bill Paige, the presenter of Brainwaves

Scientific knowledge, whether in psychology or any other discipline, is and should be for the benefit of the public. It is therefore important that our research findings and insights get out there to the general public. This is one of the goals of this magazine. However, this year we have taken our public outreach activities to another level with *Brainwaves*, a collaboration between the Department of Psychological Sciences at Swinburne and Radio Eastern FM, one of the largest community radio stations in Victoria.

Brainwaves is a fortnightly program hosted by Bill Paige on Thursday evenings (6pm), focusing on psychological science. Each show features a researcher, either an academic or research student, speaking about their research. Topics range from mental health to neuroscience and everything in between.

One of the key benefits of Brainwaves is providing our research students with training and experience in talking about their research to a general audience. This is an important skill and one which requires practice. Brainwaves provides an opportunity for our research students to gain valuable experience speaking live on-air, to a large audience of interested listeners.

Brainwaves has been a great success in its first year and we hope to continue the program into 2023 and beyond, perhaps even expanding it to include other health sciences.

To listen to past episodes or to catch the next one, head to https://www.radioeasternfm.com.au or tune in to 89.1FM.

I liked the ability to have a conversation about my research to a public audience, answering questions and engaging in a community forum. It also increased my confidence in communicating my research to a wider audience.

Presenting on Brainwaves was great - the presenter made me feel at ease, and I got the opportunity to talk about my research to the public. Some of the questions phoned into the radio show were insightful and helped me direct my own research.

For further information about this research please contact Julian Oldmeadow, **joldmeadow@swin.edu.au**

MAGNET: A New Network to Support Australian Mental Health Researchers

■ Stephanie Miles (Centre for Mental Health)
■ Susan Rossell (Centre for Mental Health)

The Mental Health Australia General Clinical Trial Network (MAGNET) aims to support mental health researchers and improve clinical trial quality. Funded by a 2020 MRFF Million Minds Mission MHR grant, MAGNET is a collaboration between Deakin University, Swinburne University of Technology, and over 30 other institutions around Australia.

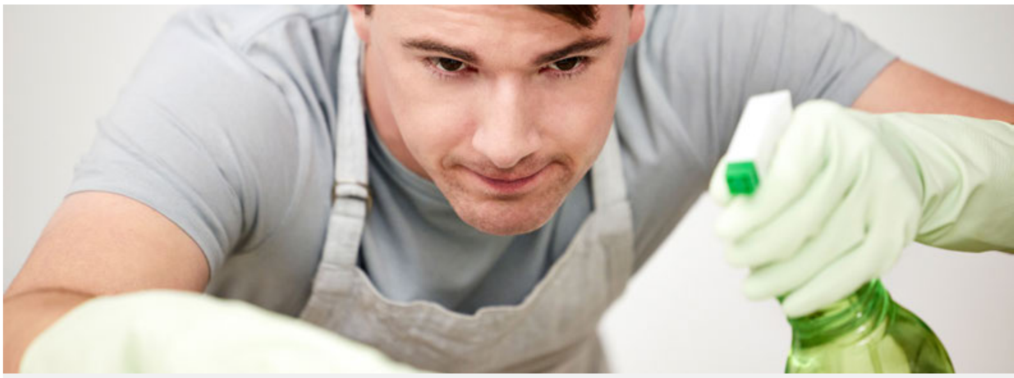
In 2022, MAGNET launched their six platforms– Assessment, Biostatistics and Data Management, First Nations Wellbeing and Governance, Governance and Policy, Health Economics and Knowledge Transformation, and Lived Experience Research Partners. These platforms are designed as reusable resources. They will help establish, coordinate, and standardise clinical trials across Australia and globally.

Over the past eight months, we have been developing resources for the MAGNET Assessment Platform. Through the Assessment Platform, we hope to reduce researcher burden and simplify clinical trial design and start-up. Finding appropriate assessments for a study is time consuming, so we have developed a searchable assessment repository. This repository includes information on assessment format (e.g., self-report, clinician interview), administration time, reference details, reliability and validity, licencing and cost information, normative scores, and more. The repository already includes 88 assessments, with a goal to add another 300 over the next few years. If you want to a clinician-rated interview for depression, and are not sure which ones are available, now you know all the information is available on the MAGNET repository.

Undertaking staff training is complex and often inconsistent across research groups. To improve team training quality and standardisation, we have developed training resources for some key assessments. These resources include training guidelines, introduction and training videos, mock case examples for role play, demonstration videos with gold-consensus scores, materials to assess inter-rater reliability, and more.

MAGNET is growing, and over time we hope to develop more resources and meet the needs of researchers around Australia and globally. If you want to learn more about MAGNET, please email: magnet@deakin.edu.au

For further information about this research please contact Stephanie Miles, **smiles@swin.edu.au**



Development of clinical guidelines for a neurostimulation therapy for treatment refractory obsessive-compulsive disorder

■ Nicola Acevedo (Centre for Mental Health)

Chronic, severe, treatment-refractory Obsessive Compulsive Disorder (OCD) is experienced by around 10% of individuals who are diagnosed with OCD. This leads to severe distress, isolation, guilt, shame, anxiety, and poor quality of life. These individuals are unable to benefit from available therapies, thus left with no treatment options.

Individuals with treatment-refractory OCD may benefit from an emerging investigational therapy, deep brain stimulation (DBS). DBS involves implanting electrodes within the brain through a neurosurgical procedure. The electrodes deliver stimulation to brain regions that underlie the development of symptoms, allowing the brain connectivity associated with OCD pathology to 'reset'. We recently reviewed all previous OCD cases worldwide receiving DBS and showed that it is a safe and effective treatment option. Significant improvement in symptoms is experienced by at least 60% of cases, and improvement in overall functioning can be even greater. For example, DBS leads to profound and widespread changes to an individuals' symptoms, mood, anxiety, social and occupational functioning and overall quality of life (Acevedo et al., 2021). However, there are no treatment guidelines available for individuals with OCD undergoing DBS therapy. In collaboration with the University of Queensland, we developed a clinical guideline published in the Australian and New Zealand Journal (Acevedo et al., 2022) of Psychiatry for managing this patient group. The guideline implemented a patient- centered and bio-psycho-social approach, with the goal to consider personalized goals and deliver personalized therapy.

Key recommendations from the clinical guidelines include:

- An individual's symptoms can guide how likely they are to benefit from DBS and should be discussed openly with individuals
- Establishment of national referral guidelines will provide greater access to care
- The surgical and stimulation approach should consider various networks of the brain rather than a single region in isolation
- Follow up therapy should be provided by an experienced and multi-disciplinary team, to ensure the patient engages in psychotherapy and psychosocial support, which are critical to DBS mediated recovery
- Development of peer support services will provide greater social resources for patients, and hope that recovery is possible

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For further information about this research please contact Nicola Acevedo, **nacevedo@swin.edu.au**

Wellbeing among young adults who have endured child maltreatment: Betrayal trauma and the protective role of post-traumatic growth

- Dr Jessica Sharp (Dept Psychological sciences)
- Professor Monica Thielking (Swinburne)
- Cassandra Jankovic (Swinburne)

Child maltreatment includes neglect, witnessing family violence, and/or physical, psychological, or sexual abuse before age 18. Recent reports of suspected maltreatment in Australia increased by 37% between 2015 and 2020, indicating the pervasiveness of this issue among young Australians. Research demonstrating the potential long-term implications of child maltreatment indicates trauma from child maltreatment can impede mental health and well-being during later stages of life.

Young adults experience unique challenges in becoming autonomous and establishing stability in self-identity and intimate relationships as they transition from adolescence to adulthood. Alongside the usual developmental challenges young adults encounter, many young adults face additional adversities such as having experienced child maltreatment. Promisingly, post-traumatic growth (PTG) may protect against the adverse outcomes associated with child maltreatment, for instance, through gains in personal strength or deeper connections and empathy for others. However, there is a paucity of research examining the relationship between maltreatment experienced during childhood and well-being as young adults and, until recently, none exploring the potentially protective role of post-traumatic growth in this cohort.

Professor Monica Thielking, Dr Jessica Sharp and honours student Cassandra Jankovic investigated the implications of maltreatment experienced as a child on young adults' well-being in a large community sample of young adults from across Australia. We know from the literature that parents, caregivers, or other adults can all be perpetrators of child maltreatment, and prevalence research indicates that parents are more likely to be perpetrators of most types of child maltreatment than another adult. The team therefore investigated child maltreatment in terms of experiences of neglect, and sexual, physical and psychological abuse and differentiated whether this maltreatment was perpetrated by the child's mother, father, or another adult. Importantly, this may inform best practices for supporting trauma-exposed young adults and help clinicians identify growth mechanisms and key points of intervention to promote wellbeing.

The research indicated child maltreatment remains a considerable influence in the lives of young adults, despite the range of factors which may affect well-being during the transitional phase of young adulthood. Interestingly, child maltreatment by the young adults' mother or father was associated with poorer current well-being, but not child maltreatment by another adult. Children subjected to maltreatment by their parents may experience a violation of trust and therefore, more betrayal trauma, and subsequently poorer wellbeing than those who had been maltreated by another adult. The finding highlights the importance for clinicians to address the potential betrayal trauma that clients might have endured as part of their maltreatment; for instance, through building rapport and establishing a therapeutic alliance to model a trusting relationship.

Appreciation of life, new possibilities and personal strength dimensions of PTG were effective in buffering the effects of child maltreatment by one's father on current well-being and PTG more generally was associated with better wellbeing among young adults with a history of child maltreatment. PTG might therefore be central to understanding the well-being of young adults, which may depend on child maltreatment being processed effectively for them to cope with psychological challenges post-trauma. Clinicians may support clients to constructively process their trauma by validating their experiences and challenging distorted cognitions. Clinicians may also consider using techniques that foster PTG, such as positive psychology techniques that encourage clients to recognise their capabilities to cope post-trauma, by nurturing clients' strengths and encouraging them to engage in activities that promote meaning and connection.

For further information about this research please contact Dr Jessica Sharp, **jsharp@swin.edu.au**

Improving neurofeedback methodologies

- Celeste Tipple (Centre for Mental Health)
- David White (Psychological Sciences, SNI)
- Joseph Ciorciari (Centre for Mental Health, Psychological Sciences)

Neurofeedback (NF) is developing as a novel neuromodulation technique that is used to investigate endogenous and naturally occurring brain activity within a closed-loop system -- which starts and ends with the user. One of the major advantages of using NF is that users can learn to control their neurobiological signal, which in effect, allows brain or nervous system activity to form the target for experimental manipulation in cognitive neuroscience experiments. NF is a flexible technique that allows researchers and clinicians alike to choose and specify training parameters based on target outcomes and the option to provide standardized or individualized training protocols based on participant's unique brain activity.

However, major methodological issues prevent the widespread adoption of the NF technique, as literature lacks consistent and reliable methodologies and approaches to protocol design, with many variations in studies limiting the ability to evaluate and determine the technique's efficacy.

One pertinent limitation involves the amount of total exposure to NF training (dose) as existing literature often involves an extended amount of training time over multiple sessions without a clear, data-driven rationale. Furthermore, critical issues within the NF technique include the lack of appropriately designed control methods. Existing literature often reports negligible effects in sham groups; however, the inclusion of an appropriate sham/control group is a contentious issue in NF as limited studies to date have utilized active control procedures. Compounding this issue are suggestions that NF may not even demonstrate efficacy over a control or placebo group.

Celeste Tipple, a PhD student at Swinburne University of Technology, supervised by Dr. David White and A/Prof. Joseph Ciorciari designed a single session NF protocol targeting increases in theta activity (4-8Hz) with an active sham group who were provided with a real time recording of offline EEG activity as they attempted to similarly increase theta. It was suggested that a single, 30-minute exposure to NF training is sufficient for inducing brain changes, with this effect also evident in participants allocated to the sham group. The implication of these finding may lead to more accessible and less demanding NF training paradigms to ensure that participants are receiving the highest amount of NF training benefits within the shortest time frame possible. As there was evidence of brain changes during sham training, it is strongly suggested for future researchers to implement an active sham group to provide a suitable baseline for comparison and thus determine whether NF is efficacious over sham training.

The work is currently being prepared for multiple publications and to be presented at the International Organization of Psychophysiology (IOP) Conference in Geneva in 2023.

For further information about this research please contact Celeste Tipple, **ctipple@swin.edu.au**

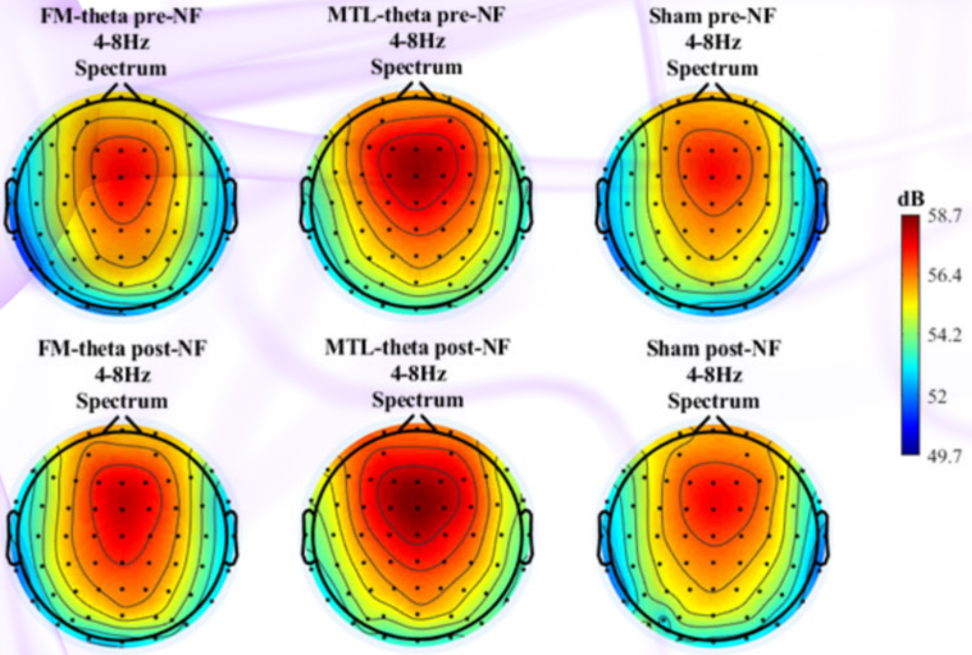

Image by Alexandra Haynak from Pixabay

What does it mean to be Neurodiversity Affirming...? We don't really know.

- **Rachel Jellett (Swinburne University - Psychology)**
- **Rebecca Flower (La Trobe University - Psychology)**

Imagine you realise you're not feeling OK, and you need to talk to someone, so you start searching for a psychologist. Yet, you get distracted part way through (by an email, call, text). You find 15 options and don't have the spoons* to evaluate who to choose. You're not really sure how to tell if the psychologist will be suitable, and can't figure out the best way to make an appointment. It's overwhelming. You decide to come back to it later. You somehow manage to sort this part out and turn up to a psychology clinic for your appointment. There is a bright geometric rug on the floor, looking at it makes you nauseous. It's hard to filter out the low-pitched hum of the heating, and listen to the receptionist at the same time, you're not sure you're heading in the right direction, and feel awkward. You find yourself in a waiting room and with the strong fragrance of an oil diffuser, fluorescent lights glaring down, and the sound of traffic and trams passing by. Your nervous system is on high alert.

You finally make it into the room and meet your psychologist, and you don't know what to expect. They're nice, but they don't seem to notice how overstimulated you are. It's hard for you to listen to everything they say while trying to smile and make eye contact with them. They say something you didn't expect and you're thrown, you make eye contact and smile politely. Sometimes, they ask questions that seem kind of on track, but you don't feel entirely understood or validated. You wish they'd ask you about your indoor plants, offer you something to do or fidget with, or that you could tell them all the amazing things about your pet, but it doesn't come up and you're not sure if you can raise it. It's not until you're back home, in your own space, that you can decompress from the sensory and social experience of attending the appointment. When reflecting about the appointment, you feel upset and frustrated.

For autistic clients, this scenario is often the reality of engaging with health services. Replace the fairly standard psychology clinic in this scenario with a hospital emergency department or ward and imagine the difference in the sensory overload you'd face. Add in the communication differences between the autistic client and (as is often but not always the case) the non-autistic psychologist. These are some of the barriers autistic clients face when engaging with health services and contribute to what Mandy (2022) has described as an "autism mental health crisis". Autistic adults are more likely to experience mental health concerns than non-autistic adults (Lai et al., 2019), and less likely to be able to access help (see Mandy, 2022). When autistic people do access healthcare, they often feel their needs are not met (Nicolaidis et al., 2013).

Given the high proportion of autistic (whether self-identified, formally diagnosed, or unaware) clients within the mental health system, it is essential for psychologists to adapt the care they provide to match their clients' needs. This is particularly important where there is a mismatch in best practice approaches (e.g., promoting more activity might be suggested for depression, but can worsen autistic burnout; Higgins et al., 2021). Adapting healthcare service provision to meet the needs of neurodivergent clients is beginning to be referred to as neurodiversity affirming practice and encapsulates work with a range of minds that fall within the neurominority (e.g., autistic, ADHD'er, dyslexia). With workshops, seminars, podcasts, and practitioners advertising that they are "Neurodiversity Affirming", we decided to start researching what this actually means. We are currently collecting data from autistic adults, autistic psychologists, and non-autistic psychologists to work toward a consensus definition of "affirming practice" in the context of psychologists working with autistic adults. Watch this space as we continue to work through the Delphi rounds with an expert panel and refine our definition and description.

*See "Spoon Theory" by Christine Miserandino

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For further information about this research please contact Rachel Jellett, **racheljellett@swin.edu.au**

Fair Sex?

■ Dr Simone Buzwell
(Psychological
Sciences/ CMH)

Low sexual desire is a commonly reported sexual problem for women (Hayes et al., 2008) and is resistant to treatment (Brotto, 2017). While low sexual desire is not a problem for all, Frost and Donovan (2015) suggest approximately 16% of women experience distress due to low desire indicating it is an issue for many. When desire-related distress exists, it manifests in relationship concerns, decreased sexual pleasure and frequency, reduced intimacy, and partner frustration (Stephenson & Meston, 2012) suggesting a need to examine this concern.

However, exploring sexual desire is complicated as it is a construct that has evaded precise conceptualization. Recently, it has been suggested that desire consists of solitary [feeling 'sexy'] and dyadic [desire for a partner] constructs, although it has remained unclear how to enhance these dimensions to positively benefit women's desire.

To explore this complex issue, Dr Simone Buzwell and her postgraduate students Eva Johansen, Astrid Harkin, Amelia Sanchez and Fionna Keating, conducted a study investigating the associations between relationship equity, relationship satisfaction, and dyadic and solitary female sexual desire [FSD] https://doi.org/10.1080/00224499.2022.2079111. We included relationship equity given the ABS indicates women conduct substantially more house and relationship tasks than their partners.

Perhaps- we reasoned- women are simply too tired to have sex?

The results of our cross sectional study, with 299 Australian women aged 18 to 39 years, showed three groups:

- relationships where women perceived the work as equally shared (the "equality" group),
- when the woman felt she did more work (the "women's work" group),
- when women thought their partner contributed more (the "partner's work" group).

When exploring the link between these groups and sexual desire, we found equality in relationships predicted relationship satisfaction, which subsequently, was related to higher levels of dyadic sexual desire. Not surprisingly, no significant mediation was found for solitary desire indicating relationship factors did not play a critical role in this domain. This result also demonstrates a divergence between the two domains of desire and solidifies the notion of FSD as a multifaceted construct.

Other interesting results included that the same pattern [albeit not as strong] was found in same-sex attracted women as for heterosexual women. In addition, the presence of children was found to exacerbate the relationship; while the partner's work group was too small to obtain significant results.

As we considered the results to have important implications - we published the article as a Conversation piece https://theconversation.com/dont-blame-women-for-low-libido-sexual-sparks-fly-when-partners-do-their-share-of-chores-including-calling-the-plumber-185401 which has been read more than 286,000 times to date. Clearly alleviating problematic FSD is important to many.

Our next project will replicate the study with men to see if the pattern is repeated and we are looking forward to discovering if equity is as stimulating to men as it appears to be for women.

For further information about this research please contact Dr Simone Buzwell, **sbuzwell@swin.edu.au**

Examining Predictors of Burnout in Residential Aged Care Staff

- Yin Siu (Jane) Low (Department of Psychological Sciences)
- Prof Sunil Bhar (Department of Psychological Sciences)
- Dr Won Sun (Sharon) Chen (Department of Health Sciences and Biostatistics)

Have you ever wondered that most people of today are living past the age of sixties and over? Older adults are classified as those above the age of 65 years old. With the growing number of older adults in the society today, some of them may need more full-time care, especially those who can no longer look after themselves or live independently. These older adults will live in residential aged care facilities and more residential aged care staff are needed to help look after their needs.

In Australia, approximately 3.5 million people will have to depend on aged care services for support by 2050. Almost one million aged care staff are needed in order to sustain this growth (Productivity Commission, 2011). Therefore, residential aged care staff are prone to feeling burnout because of increasing demands and workloads within the residential aged care facilities.

Imagine a burning fire weakening over time. This image aptly describes the slow depletion of energy levels in staff members which make it difficult for them to continue in their jobs over a period of time.

According to burnout researchers in the US, burnout is the feeling of being emotionally drained, feeling cynical about one's job and the lack of accomplishment in one's job.

Residential aged care staff who are feeling burnout tend to have poor job satisfaction, be absent on the job and eventually quit their jobs. Research about the drivers for burnout among residential aged care staff are not well known. It is important for us to find out what drives burnout in these staff members in order to develop programs that can help them to prevent burnout.

In our research study, we investigated the idea of what predicts burnout at an individual level so that these factors can be addressed by burnout prevention programs in the future. We recruited one hundred and thirty residential aged care staff (who identified as a paid employee and provides direct care to residents) across Australia. Our participants completed an online survey measuring three dimensions of burnout using the Maslach Burnout Inventory Human Services Survey (MBI-HSS) which are emotional exhaustion, depersonalisation and personal accomplishment. They also completed an online survey which measured individual factors such as perceived support, personal confidence and adaptive coping skills.

This research suggests that individual factors contributed to staff burnout. More specifically, higher levels of support contributed to lower emotional exhaustion scores and lower depersonalization scores; this prediction was not significant for personal accomplishment scores once demographics, organisational climate and work patterns were controlled. Higher levels of confidence also contributed to lower emotional exhaustion scores, lower depersonalization scores and higher personal accomplishment scores once all other variables were controlled. Higher levels of adaptive coping contributed to lower emotional exhaustion scores; the prediction was not significant for depersonalization and personal accomplishment scores once all other variables were controlled.

Our findings suggest that lower personal confidence is the most widespread predictor of burnout. Perceived support and adaptive coping skills remain important predictors but of more limited dimensions of burnout. Each factor needs to be incorporated in burnout prevention programs to address the different dimensions of burnout in Australia's residential aged care staff.

For further information about this research please contact Yin Siu (Jane) Low, **jlow@swin.edu.au**

Keeping Tabs on the Human Side of Technology: The Social Psychology of Innovation Research Group

The Social Psychology of Innovation (SPI) research group has continued to spearhead cutting edge research on the social psychology of technology and innovation. The group, consisting of social psychologists from across the university, has been very active in 2022, conducting research, writing papers and grants, and forging partnerships with industry.

Key research foci include technology and social change (led by Dr Julian Oldmeadow), trust in science and technology (led by Dr Brad Elphinstone), the ethics of innovation (led by Dr Melissa Wheeler), the psychology of sustainability (Dr James Williams), and public interest technology (led by Associate Professors Diane Sivabubramaniam and Sam Wilson).

Here are some of our highlights from 2022.

A new PhD student, Rob Hamilton, commenced this year looking at social representations of hydrogen energy technologies. His PhD, funded by the Victorian Hydrogen Hub and supervised by Dr Julian Oldmeadow, Associate Professor Sam Wilson, and Dr James Williams, aims to examine the development of public understandings and acceptance of hydrogen energy within Australia.

SPI has been collaborating with Associate Professor Carla Ferarro and Dr Jason Pallant from the *Customer Experience and Insight Research Group* to write a paper on digital trust. The paper, titled "Not so trustless after all: The significance of trust in web 3.0 technology and opportunities for brands", has recently been submitted to *Business Horizons*.

We have conducted a nationally representative survey of public attitudes towards hydrogen energy. This project, led by Dr James Williams, tracks the Australian public's current understanding or and attitudes towards hydrogen energy technologies. Results were presented at the *Public Acceptance of Hydrogen* event, hosted by QUT and Swinburne, and attended by over 70 representatives from academia, policy, and the hydrogen industry.

In 2022, SPI welcomed two new members. Dr Taylor Gogan completed his PhD early this year and took on a Level B position in the Department of Psychological Sciences. His research expertise is in face perception and he plans to explore social psychological issues in the use of face recognition technology. Ilona McNeill is another new lecturer in the Department of Psychological Sciences and an expert in the social psychology of digital health.

For more information about our group visit:
https://www.swinburne.edu.au/health-arts-design/research/social-psychology-of-innovation-research/

Retribution and restoration: Studying the psychology of justice

- **Stacey Politis (Swinburne University)**
- **Diane Sivasubramaniam (Swinburne University)**
- **Nina Papalia (Swinburne University)**

Child protection services are a crucial sector aimed at protecting vulnerable children from harm. However, they also make decisions that are highly contentious – practitioners in this context have the power to disrupt a family unit and remove children from their homes. Globally, there are low levels of public trust and confidence in child protection systems – yet, few researchers have investigated the mechanisms driving this, despite the impact of those public perceptions on both child protection policy and frontline practitioners, who experience very high levels of burnout, vicarious trauma, and abuse. Our research draws on social psychology theory to investigate the factors driving these negative perceptions of child protection services.

Research in other contexts has shown that heinous transgressions provoke a strong desire in observers to see the wrongdoer punished. In child protection cases, the public are usually exposed to only the most severe cases through media reports, often after a child death has occurred, which causes public outrage and prompts a desire for punishment of wrongdoers. However, in the cases they manage, child protection practitioners are not tasked with punishing parents who harm children – instead, they aim to help them, collaborate with them, and to reunify separated families. This creates a psychological tension between the public's expectation of punishment in this highly emotive context, and the non-retributive purpose of child protection.

In a series of studies across this doctoral research project, we explore this tension between the community's retributive impulses and child protection services' restorative goals. In our first study, using mixed methods, we showed that people articulate a strong desire for restoration in child protection contexts, but their decisions about a child protection scenario (gauged using an experimental design) are instead impacted by knowledge of adverse case outcomes and a desire to punish an offender who harmed a child. Planned studies include interviews with child protection practitioners, to understand their perspectives on restorative practice. This line of work has implications for child protection services, as we seek to provide recommendations for practitioners to more safely and effectively carry out their non-retributive purpose.

For further information about this research please contact Stacey Politis, **spolitis@swin.edu.au**

Investigating Racial Bias in Facial Recognition Technology

▪ Dr Taylor Gogan (Swinburne University of Technology)

Facial recognition technology (FRT) is becoming increasingly prevalent in the modern world. Despite the recent surge in the use of FRT, little is known about public perceptions of this technology, particularly in light of its potential racial bias.

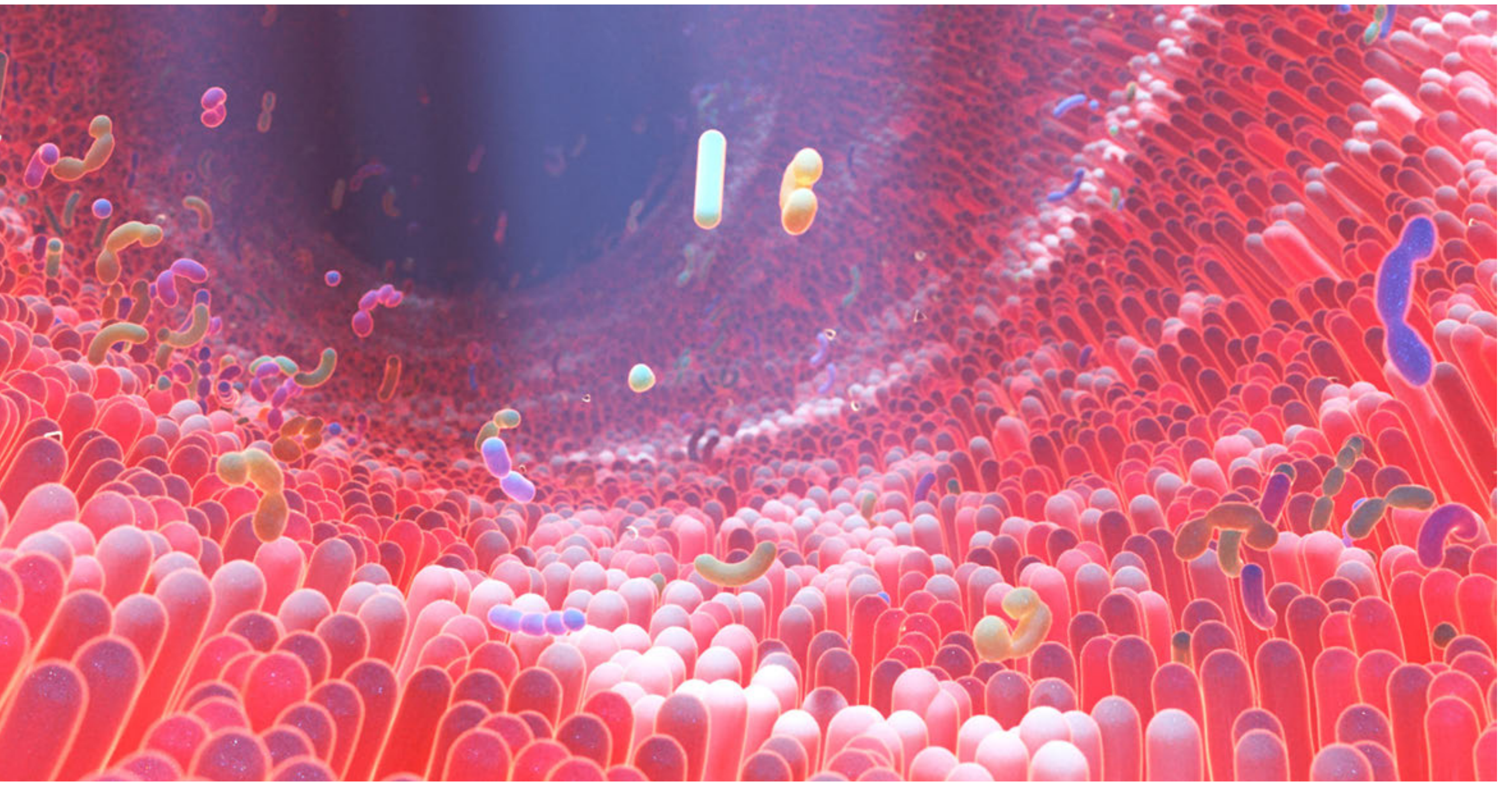
Facial recognition technology is becoming increasingly evident in our lives, from airport security, unlocking smart-devices, and even retail stores (e.g., Bunnings and Kmart). In some countries, FRT is also becoming increasingly relied upon by police to identify perpetrators.

Facial recognition technology is an efficient means of obtaining biometric data. For instance, FTR can be used to compare a given face image against large databases to find a potential match (e.g., using CCTV footage to find potential suspects on police watchlists). The algorithms provide an estimate of the degree of similarity between two face images to help inform human decision makers.

The accuracy of FRT has been steadily increasing over the years, with many algorithms now outperforming even the best human recognisers. However, there is some evidence that FRT is often prone to racial bias, whereby the algorithms tend to show higher accuracy for Caucasian compared to non-Caucasian faces. This has raised concerns that use of this technology might reinforce and exacerbate existing racial disparities.

Although the use of FRT can have important consequences, little is currently known about public attitudes towards this technology in Australia. Therefore, the aim of this project will be to investigate public perceptions of racial bias in FRT. Specifically, we are interested in unveiling beliefs about the nature of the algorithmic racial bias and whether differences in the believed source of this bias can predict attitudes towards the technology. An additional objective will be to test whether informing people about different possible explanations for the racial bias can influence their attitudes towards FRT.

For further information about this research please contact Dr Taylor Gogan, **tgogan@swin.edu.au**



Developing Online Resources for Gastrointestinal Conditions

- Simon Knowles (Department of Psychological Sciences)

Simon is a recognised leading expert in the field of Psychogastroenterology, which is the application of psychological science and practice to gastrointestinal health and illness. Simon has attained AUD$4 million in competitive funding, published over 100 peer reviewed publications, and edited three books.

Gastrointestinal problems are common, with around half of the Australian community experiencing at least one gastrointestinal problem each year. On average, 30 percent of individuals living with gastrointestinal problems also report significant psychological distress which has been shown to promote non-optimal illness management strategies and lead to the exacerbation of physical symptoms. Given this, identifying optimal health strategies to promote well-being in individuals living with gastrointestinal problems is essential.

The internet is becoming an increasingly important part of clinical practice as a tool to facilitate patient well-being. Up to 93% of individuals with a gastrointestinal condition consult the internet to attain information about their condition. Research indicates that both now and in the future, the internet and eHealth resources will be increasing utilised by individuals with GI conditions to attain information about conditions and to seek support.

Despite the clear demand, Simon's research identified a lack of evidence-based and reliable sources of information about gastrointestinal conditions and psychological well-being on the internet. Further, access to gastrointestinal-specific psychological support services around the world was also found to be lacking.

To address this, Simon developed five online resources that provide expert-developed, evidence-based, reliable sources of information for Irritable Bowel Syndrome (IBS; www.IBS.mindovergut.com [formally www.IBSclinic.org.au]), Inflammatory Bowel Disease (www.IBD.mindovergut.com [formally www.IBDclinic.org.au]), Gastroparesis (www.Gastroparesis.mindovergut.com, [formally www.gastroparesisclinic.org]), Coeliac Disease (www.Coeliac.mindovergut.com), and bladder and bowel anxiety conditions (www.BBA.mindovergut.com [formally www.toiletanxiety.org]). In addition, these eHealth platforms also provide gastrointestinal condition-specific resilience programs to promote optimal psychological well-being.

Simon's websites are now cited by leading government (e.g., https://www.healthdirect.gov.au/) and patient peak bodies (e.g., https://www.crohnsandcolitis.com.au/) as providing high quality trusted content.

To date over 500,000 individuals across the world have accessed these eHealth resources.

For further information about this research please contact Simon Knowles, **sknowles@swin.edu.au**

Exploring the Lived Experiences of Psychologists with a History of Non-Suicidal Self-Injury

- Samantha Dax (Department of Psychological Sciences)
- Dr Jessica Mackelprang (Department of Psychological Sciences)

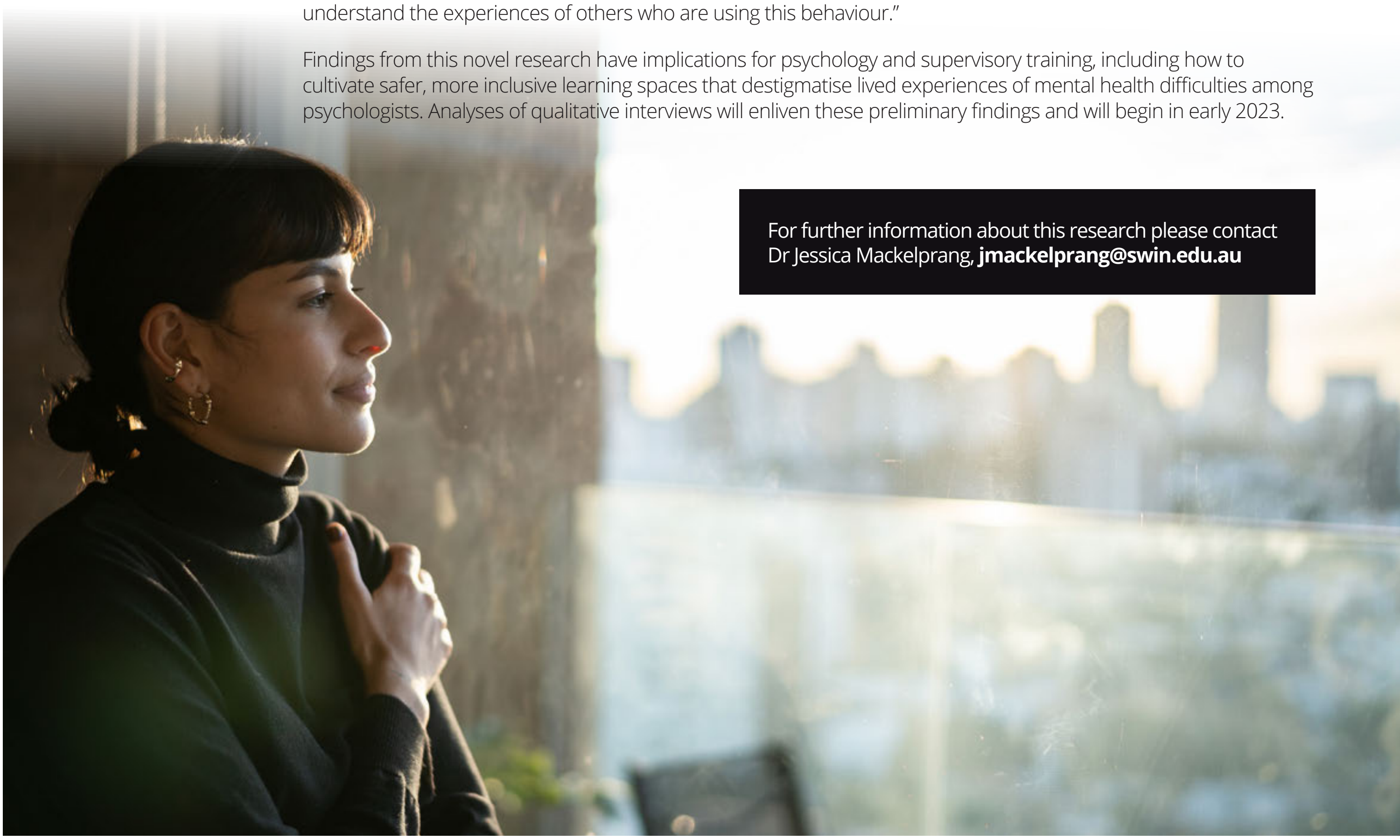
Despite longstanding recognition that many people who enter helping professions have lived experience of mental health difficulties, stigma surrounding mental illness among mental health professionals persists. Stigma may explain in part why there is but a modest body of research exploring the lived experiences of mental illness amongst mental health professionals, including psychologists. In a recent study conducted in the United States, the prevalence of self-reported mental health difficulties amongst academics and postgraduate students in psychology was similar to or greater than the general population, depending on diagnosis. In particular, 10% of participants reported a history of non-suicidal self-injury (NSSI).

Compelled to learn more about the experiences of psychologists who have a history of NSSI and to combat mental health stigma among psychologists more broadly, Samantha Dax, a Master of Psychology (Clinical) student, is leading a mixed-methods study under the supervision of Dr. Jessica Mackelprang to investigate the lived experiences of psychologists in Australia who have a remote history of NSSI. They are using a combination of surveys and qualitative interviews to learn more about how lived experience of NSSI impacts psychologists' work, their decisions about disclosure to supervisors, colleagues, and clients; and their choices related to scar concealment.

Preliminary analyses of anonymous survey data from 90 psychologists (65 provisional, 25 general) indicate that regardless of registration status, few psychologists with a history of NSSI have disclosed their lived experience of NSSI to colleagues (29.1%), supervisors (7.8%), or clients (2.2%). Among those who have NSSI-related scarring, intentional concealment in a variety of professional contexts (e.g., client work, supervision) is common. Reflexive thematic analysis is being used to analyse responses to open-ended survey questions. Initial findings suggest that psychologists view NSSI as just one part of their history; however, they fear that if this history, no matter how remote, became known, they would be vulnerable to judgement or deemed unfit to practice. This fear is a barrier to disclosure, particularly to supervisors. For instance, one provisional psychologist expressed worry that they might be viewed in "a different light" or seen as "less stable/capable" by supervisors if their NSSI history was known. Fears about repercussions of disclosure were sometimes exacerbated by stigmatising discussions about mental health during psychology training. Still, many psychologists described ways in which their NSSI history provided value to their practice by increasing their understanding and empathy for clients engaging in NSSI. One provisional psychologist concluded, "Having the lived experience of NSSI, how it feels, and how it functions, really helps me to understand the experiences of others who are using this behaviour."

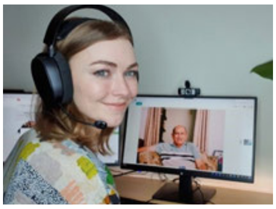
Findings from this novel research have implications for psychology and supervisory training, including how to cultivate safer, more inclusive learning spaces that destigmatise lived experiences of mental health difficulties among psychologists. Analyses of qualitative interviews will enliven these preliminary findings and will begin in early 2023.

For further information about this research please contact Dr Jessica Mackelprang, **jmackelprang@swin.edu.au**



Psychologists meeting the needs of older adults

- **Dr Deborah Koder (Department of Psychological Sciences)**
- **Professor Sunil Bhar (Department of Psychological Sciences)**
- **Dr Monica Cations (Flinders University, College of Education, Psychology and Social Work)**



The proportion of people aged over 65 is steadily growing but are we prepared to meet the demand for mental health services?

Unfortunately, mental health practitioners including psychologists, social workers and counsellors traditionally rate working with older people far down the list of preferred client groups. Past Australian surveys indicate that only 6% of psychologists specialise in working with older adults. The low rate of specialisation exists despite the ongoing need for psychological support with issues such as loneliness, adjusting to life transitions and loss. The impact of COVID-19 has accentuated this need.

However, there are now increased employment opportunities to work with older adult clients, such as in residential care and rehabilitation settings, as well as seeing older clients in private practice through government partial remuneration. The Swinburne Wellbeing Clinic for Older Adults has been training post-graduate students in mental health, including psychologists, to work in this specialised area through placements in residential care facilities. Structured educational webinars complement their clinical learning.

We are committed to promoting working with this age group to mental health practitioners. Among our research projects is a study in collaboration with Flinders University specifically examining the status of geropsychology in Australia and the effects of clinical placements on work patterns. Are these formative clinical experiences having an impact on the number of mental health professionals delivering mental health services to older adults? Our research aims to identify factors that predict the extent to which professionals provide these services to older adults.

To find out more about this research, as well as education and training resources in geropsychology, go to Wellbeing Clinic for Older Adults | Swinburne.

For further information about this research please contact Dr Deborah Koder, **dkoder@swin.edu.au**

Investigating Gender Disparities in Authorship of Invited Submissions in High-Impact Psychology Journals

- Dr Jessica Mackelprang (Department of Psychological Sciences)
- Eva Johansen (Department of Psychological Sciences)
- Dr Catherine Orr (Department of Psychological Sciences)

Women comprise the majority of graduates from psychology doctoral programs and have for several decades, but equity is yet to be achieved in the professoriate. Publication drives career advancement, which underscores the importance of studying publication-based metrics of eminence. One proxy of research esteem that has yet to be the focus of any psychology studies is authorship of an invited submission in a high-impact journal. To address this gap in the literature, Dr Jessica Mackelprang, Dr Catherine Orr, and Eva Johansen conducted a study on authorship of invited submission(s) in five elite psychology journals over the 5-year period. They hypothesised that women would be underrepresented.

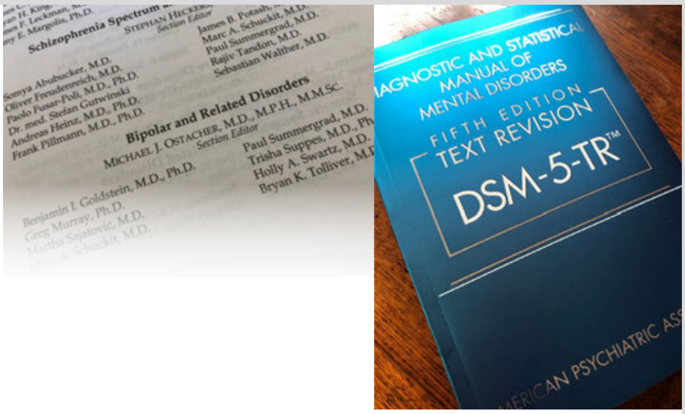
They classified the gender of authors who published papers in Psychological Science in the Public Interest, Annual Review of Psychology, Trends in Cognitive Sciences, Annual Review of Clinical Psychology, and Annual Review of Organizational Psychology & Organizational Behavior between 2015 and 2019 using publicly available details (e.g., pronouns on professional websites). They also extracted authors' retrospective h indices from Scopus for the year prior to publication (i.e., the year the paper was presumably solicited/ written) and year of first publication, which enabled them to calculate authors' professional age.

Relative to the proportion of women full and associate professors in psychology at R1 institutions (42.3%), women were disproportionately underrepresented. Of 1,828 authorship positions (713 articles) they analysed, 35.6% were occupied by women. When the likely invited author on a multi-author publication was a woman, the first author was a woman on 51.0% of papers; when the likely invited author was a man, the first author was a woman on 34.1% of papers. Women also allied with all-women authorship teams less often than men co-authored exclusively with other men. These findings align with prior studies and extend this body of research by demonstrating that the gender publication gap in psychology is exacerbated in invited submissions and driven by particular subfields.

Journals that publish invited submissions have a responsibility to increase the visibility of research produced by women and other minoritised groups equitably and should be held accountable for doing so. Transparent, systemic action is needed to ensure that women publish invited submissions in elite psychology journals proportional to their representation in the upper ranks of academic psychology. This study has recently been accepted for publication in American Psychologist, the flagship journal of the American Psychological Association. Next steps in this line of research will involve partnering with the Annual Reviews family of journals to expand the study of invited submission equity beyond psychology.

For further information about this research please contact Dr Jessica Mackelprang, **jmackelprang@swin.edu.au**

Editing the bible: An inside look at the DSM project



■ Greg Murray (Psychology)

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is arguably the most influential and contentious document in mental health. Developed and regularly updated by the American Psychiatric Association, it is known as 'the bible of psychiatry' because it contains a listing of the recognised mental health diagnoses (Major Depressive Disorder, Schizophrenia, PTSD, etc.). DSM is used to teach diagnoses to psychologists, psychiatrists and GPs. It also provides the framework for most research into the causes and treatments of mental health disorders.

The DSM project is highly contentious. In particular, many researchers, clinicians and consumers are concerned about the dubious validity of the diagnoses. Specifically, the boundaries between disorders, and the relationship between disorders and normal experiences are unclear. Likewise, while DSM is a medical textbook, there remains no laboratory test for any specific psychiatric diagnosis. More political criticisms argue that the DSM medicalises (and thus stigmatises) human experience, and that DSM's medical approach to distress helps maintain unhealthy power imbalances in mental health. Indeed, many reputable professionals and organisations explicitly reject DSM because of its limitations.

There are also many people (myself included), who see DSM diagnoses as limited but invaluable tools. For clinicians, the diagnoses provide an accepted, clearly defined set of terms to facilitate professional communication. The diagnoses also contain probabilistic information about prognosis and treatment options for an individual client. For patients, diagnoses provide an acceptable, non-judgmental explanation for their feelings and behaviours. But it's critical that we all hold the diagnoses lightly. A diagnosis is just one piece of information in a case formulation of a particular client (see https://youtu.be/1onBvCdpACg). It's also important for clinicians to remember the validity issues mentioned above: The DSM is more like a dictionary (a set of definitions) than an encyclopedia (a set of discoveries).

In 2019, I was invited onto the working group revising the Bipolar and Related Disorders chapter for the latest DSM manual, the DSM-5 Text Revision (DSM-5-TR). Published early in 2022, the DSM-5-TR does not contain major revisions to the diagnoses themselves, but does completely revise and update the manual's associated text. For example, DSM-5-TR contains revised descriptions of the disorders' presentations, updates about risk factors, comorbidities, prevalence estimates, etc. I have written critically about and taught the DSM for a long time, but my involvement in the DSM-5-TR development process highlighted four interesting issues.

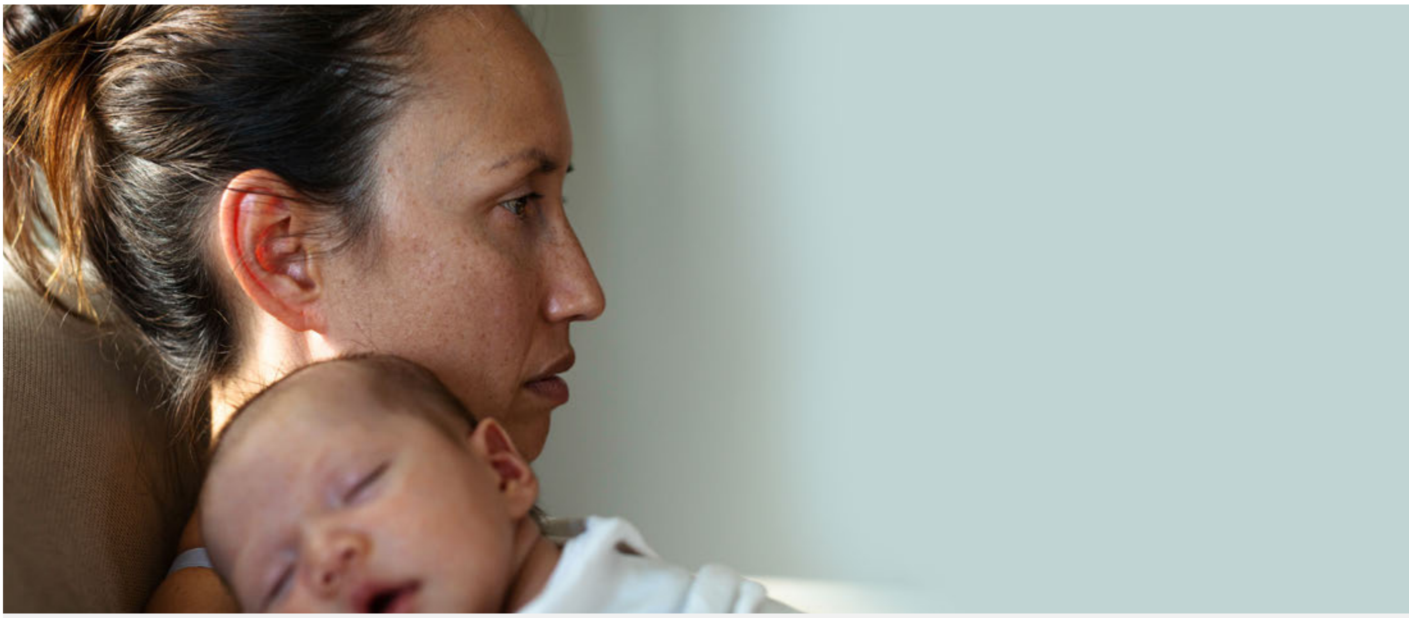
In contrast to the physical sciences, the data of psychiatry and clinical psychology rarely speak for themselves. Consequently, social processes have a significant impact on the DSM classification. An infamous example is the changing status of homosexuality across editions. Homosexuality was a diagnosed mental disorder in DSM-I and early printings of DSM-II (having for decades been an important deduction from psychodynamic theory). A strong political lobby in the early 1970s led to its being removed in later printings of DSM-II. In DSM-III, homosexuality appeared in the form of 'ego-dystonic homosexuality' (the person's sexual arousal pattern causes them distress), and in DSM-III-R, homosexuality was removed altogether. The DSM-5-TR is also visibly influenced by current social trends in the US. For example, 'racialized' has replaced 'race/racial' to underscore that race is a social construct. When discussing gender dysphoria, 'desired gender' has been reworded to 'experienced gender'.

A camel is a horse designed by committee. Each DSM manual is a complex human project, developed by a large number of volunteer professionals. The manual itself is a complex document: the DSM-5-TR contains some 300 mental disorder diagnoses, grouped into 22 distinct chapters written by separate groups of experts. Each group proposes updates and additions for their chapter, and drafts are then iterated through forensic experts (DSM plays a very significant role in legal settings), and the Chairs and Vice-Chairs of the project. It is easy to understand how meaning is lost in this process, and how inconsistencies arise across different parts of the text. One longstanding logical problem in DSM-5 is the role of life events in mental disorders. Many people believe that an understandable response to a life event is not a mental disorder; others hold the alternative view that if a patient is showing the symptoms of a disorder (such as depression), the presence of a significant life event (such as grief or other losses) is irrelevant to the diagnosis. Different editions of DSM (and different parts of the same edition!) take different positions on this fundamental question about the nature of mental disorders.

People are just people. My experience of working on DSM-5-TR reminded me that there is a large community of people of many different professions and nationalities, all of whom share a commitment to assisting people when they are at their most vulnerable. I learned that, like me, many of the authors of DSM-5-TR have experience of 'living, loving, learning and labouring' in mental health. We are not dispassionate scientists or arrogant clinicians, and often have personal experience of the challenges people face with our feelings and behaviours.

In the area of bipolar disorder, our working group (eight US psychiatrists and myself) achieved some significant evidence-based shifts in the text of the Bipolar and Related Disorders chapter of DSM-5-TR. These included a new emphasis on the importance of childhood adversity as a risk factor for bipolar disorder, and introduction of a nuanced description of the gene-environment interplay involved in its heritability. We even added (I think for the first time in DSM) mention of a genuine strength that is an associated feature of a mental disorder - DSM-5-TR now recognises that bipolar I disorder is associated with the strength of creativity. I'm particularly proud of this update, because creativity is a trait highly valued by people living with bipolar disorder. Our revision also reminds the millions of readers of DSM-5-TR that mental disorders happen to people, not just to nervous systems.

For further information about this research please contact Greg Murray, **gwm@swin.edu.au**



The impact of COVID-19 on Obsessive Compulsive symptoms among expecting and new parents

- A/Prof Maja Nedeljkovic (Department of Psychological Sciences)
- Samuel Hoppe (Department of Psychological Sciences)
- Raina Walker (Department of Psychological Sciences)
- Dr Chris Ludlow (Department of Psychological Sciences)

The impact of the COVID-19 pandemic on mental health has been well documented with worsening outcomes for a range of disorders including obsessive-compulsive disorders (OCD). New and expecting parents have been considered to be at a particular risk of disorders such as perinatal obsessive-compulsive disorder (pOCD) due to increased stress during this period.

Perinatal Obsessive-Compulsive Disorder is an obsessive compulsive and related disorder that is defined by the occurrence or exacerbation of obsessive-compulsive symptoms during the perinatal period (pregnancy and 12 months post-partum). Obsessive-compulsive symptoms consist of obsessive thoughts (e.g., fear of contamination) which are persistent, can create distress, and lead to a compulsive behaviour (e.g., handwashing) to reduce this experienced distress. Obsessive thoughts are usually experienced as unwanted, often repugnant and ego-dystonic (contradicting one's sense of self and values) and highly distressing, while the compulsive behaviours tend to be excessive, time-consuming and significantly impact on one's functioning. In pOCD, obsessive thoughts are experienced in the form of intrusive thoughts, impulses or images relating to harm towards the new or unborn infant (e.g., suffocation, intentional harm, sexual thoughts and contamination of the infant), and are often accompanied by compulsive behaviours such as checking, self-reassurance, and sometimes avoidance of the child in an effort to ensure their safety. If left untreated, these symptoms can result in significant mental health problems (e.g., co-morbid depression, anxiety) for the parent, and potentially developmental problems for the child.

The COVID-19 pandemic has exacerbated stressors resulting in increased vulnerability and poor mental health outcomes for this at-risk population. Stressors compounded for parents as they manage pregnancy, childbirth and unexpected pandemic-related stressors. Studies during the COVID-19 pandemic have found parents experienced limited social interactions, financial stress, limited health resources, all of which were associated with worsening mental health outcomes.

Although the literature is still emerging, our recent systematic literature review found increased pOCD prevalence and symptoms during the COVID-19 pandemic. Specifically, we found that pOCD symptom prevalence increased considerably from between 7%-14% before COVID-19 to between 10% and 22% since the start of the pandemic. In a more recent study, we surveyed 299 expecting and new parents and found significant associations between COVID-19 stress and obsessive beliefs and OCD symptoms. Importantly, our results demonstrated that COVID-19 stressors affected both parents, which is noteworthy considering that nearly all of pOCD research during the COVID-19 pandemic focused on childbearing mothers. Fathers have reported feeling 'left out', because they could not attend hospital and support their partner due to health orders. Therefore, it is likely that COVID-19 stressors affect fathers and other non-birthing parents differently compared to pregnant mothers, indicating the need for differential interventions. Furthermore, these results show the importance of psychological factors in symptom development over hormonal and biological changes seen in the mother, indicating the potential effectiveness of psychological interventions.

For further information about this research please contact A/Prof Maja Nedeljkovic, **mnedeljkovic@swin.edu.au**

Co-parenting and Parenting Behaviour: The Role of Parent Mental Health for Mothers and Fathers in the Postnatal Period

- Madison Schulz (Swinburne University and Murdoch Children's Research Institute)
- Catherine Wood (Swinburne University of Technology)
- Rebecca Giallo (Murdoch Children's Research Institute and Deakin University)

Co-parenting refers to the way parents relate to one another in their roles as parents, including their ability to display supportive communication and agreement regarding parenting practices. Co-parenting is central to family functioning and is related to parents' mental health and parenting behaviour.

Much of the co-parenting research has focussed on mothers of school-aged children. There is a need to focus on co-parenting in the postnatal period, and in particular to understand fathers' experiences of co-parenting and how it relates to their mental health and parenting. Our research was conducted in partnership with the Murdoch Children's Research Institute (MCRI) and Merri Health, a community health service in Melbourne. The study drew on data collected from 138 mothers and 138 fathers participating in Family Foundations delivered by Merri Health in Melbourne. Family Foundations is an evidence-based program to strengthen co-parenting relationships during the perinatal period, and was developed by Professor Mark Feinberg from Pennsylvania State University.

Our findings showed that for mothers a more supportive co-parenting relationship was associated with fewer mental health difficulties, which was in turn associated with low parenting hostility and high parenting warmth. For fathers, a more supportive co-parenting relationship was associated with fewer mental health difficulties, which in turn was associated with low parenting hostility but not parenting warmth. Importantly, co-parenting was also directly associated with parenting warmth and hostility for fathers. The findings highlighted some key differences between mothers and fathers, particularly the importance of a supportive and cooperative co-parenting relationship for fathers' parenting behaviours. Programs to strengthen co-parenting relationships are important because of the potential flow on effects for parent mental health and parenting behaviours. Interventions targeting the co-parenting relationship during early childhood may be particularly important in improving fathers' mental health and reducing hostile parenting.

For further information about this research please contact Madison Schulz, **mschulz@swin.edu.au**

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