

Wolfson Research Institute for Health and Wellbeing



FIFTH ANNUAL ECR CONFERENCE 21ST JUNE 2022

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PROGRAMME

Welcome and Introduction: Professor Amanda Ellison, Executive Director, WRIHW

10:00-10:15

Presentation Session #1: Leanne Trick (Chair)	
	10:15-11:15
10:15	Massage ethnography: a novel research method to address epistemic injustice in palliative care research Andrea Lambell
10:30	Parental views on the acceptability and feasibility of measurement tools used to assess movement behaviours of pre-school children: a qualitative study. Sophie Phillips
10:45	Does what the mother eats during pregnancy affect fetal and infant behaviours? Beyza Nur Ustun
11:00	"You're like a salesman, or a saleswoman, you're trying to sell that person exercise": How the socioeconomic position of an area influences General Practitioners' engagement with physical activity as a treatment pathway for mild to moderate mental health conditions Patrick Eveleigh

Comfort Break	
11:15 – 11:30	

Presentation Session #2: Zach Lee (Chair)	
11:30 – 12:30	
11:30	'Being diagnosed': Women's experiences of obtaining a diagnosis of chronic pain in North East England Lucy Johnson
11:45	Increasing Physical Activity in a Medium Secure Service: (IMPACT) Gloria Man Yee Lui
12:00	A simulated method study of head impact forces during common contact events in rugby union Thomas Goodbourn
12:15	"A different voice" Nicola Jane Kendall

Lunch Break

12:30 - 13:10

Afternoon Session Introduction: Professor Amanda Ellison, Executive Director WRIHW

13:10 - 13.15

Keynote Presentation: Professor Jane Macnaughton Research Culture and Interdisciplinarity

13:15 - 14:00

	Presentation Session #3: Andrea Lambell (Chair)
	14:00-14:45
14:00	Measurement of breath acetone in the detection of low carbohydrate availability following implementation of 'train low' strategies Isaac Eastham
14:15	Leading a Shadow Life: Disorientation Felt Whilst Waiting Through Furlough Victoria J E Jones
14:30	Resting and post-sport neurocognitive performance in athletes at risk of concussion Daniel Glassbrook

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14:45-15:00

	Flash Presentation Session: Leanne Trick (Chair)
	15:00 – 15:30
15:00	The Impact of Milk Protein Ingestion on Resistance Exercise-Induced Muscle Damage in Untrained Males and Females Alice Grace Pearson
15:05	Belonging, mental health, and help-seeking at Durham University Rosie Harris
15:10	The Cost of Caring for Others and Yourself: Personal Motivation Predicts Compassion Fatigue among Pro-Refugee Allies Olivia Grace Buckley

15:15	Anorexia Nervosa and The Legislative Conflict of Governance: Should the Law Make you Eat? Rachel L Jenkins
15:20	Exploring trauma and distrust with criminalised women Fleur Riley
15:25	The effect of water versus a sports drink on aerobic performance of female athletes: an experimental randomised cross over trial. Bethany Fitzsimmons

Closing Remarks, Awards and Thank You: Zach Lee, ECR Director, WRIHW

15:30 - 16:00



EARLY CAREER RESEARCHERS

At the Wolfson Research Institute for Health and Wellbeing (WRIHW) we include a focus on the importance of nurturing its early career researcher (ECR) community. Our ECR community mirrors the interdisciplinary commitment of the WRIHW, with PhD students in anthropology illuminating a brighter side to ayahuasca tourism in South America, peers in bioscience ironing out some truths about dementia, and a wide variety in-between. Improving health and wellbeing is not restricted to a particular academic discipline, and neither are we.

The main goals of the ECR committee are:

- To increase the sense of community between ECRs within the WRIHW
- To increase the visibility of ECRs within the WRIHW, and to wider audiences

 To offer ECRs within the WRIHW opportunities to develop their research, CV, and understanding of what a career in research can look like

If you are interested in joining our ECR committee please contact Dr Zach Lee (zach.lee@durham.ac.uk)

If you are interested in becoming a Postgraduate Associate of the Institute <u>please</u> register here.



THE ECR CONFERENCE

This conference aims to showcase the wide range of Health and Wellbeing research at Durham University and promote interdisciplinary work amongst early career researchers. The conference will feature an introduction by Professor Amanda Ellison, Executive Director of the Wolfson Research Institute for Health and Wellbeing as well as a keynote by Professor Jane Macnaughton, Deputy Pro-Vice-Chancellor (Research). There will be presentations and flash talks by fellow ECRs.

Although this year's conference is over zoom and not in person, we have taken the liberty of sending out wellbeing boxes to be enjoyed on the day.

So sit back and enjoy.

SESSION 1

Chaired by Leanne Trick



1

Massage Ethnography: A novel research method to address epistemic injustice in palliative care research

Andrea Lambell

Anthropology

Palliative care research raises important ethical and practical considerations, but preventing people with deteriorating cognitive capacity and physical resources from participating in research denies them the opportunity to inform practice with their knowledge. As a result, people are frequently excluded not only from palliative care research but from the palliative care for which they are eligible. Massage ethnography is a novel means for researchers who are suitably qualified in touch therapies to use massage sessions to observe and communicate in ways that do not impact on participants' dignity and resources. Touch and the therapeutic relationship facilitates communication through mechanisms that can adapt to the diverse circumstances and environments of vulnerable people, including those with neurodegenerative conditions. This study of eight people with life-limiting conditions, including six participants with Parkinson's Disease,

considers the appropriateness of using massage ethnography as a research method for people whose physical and cognitive capacities are deteriorating. It considers the circumstances in which massage ethnography might meet the ethical and practical requirements necessary to address the epistemic injustices which arise when people with reduced capacity are excluded from research. Massage ethnography offers functional mechanisms counteracting some of the physical, psychosocial, emotional and spiritual issues faced by people with declining cognition. The study shows massage ethnography has the potential to transform the evidence base for palliative care development, while at the same time offering something to enhance the lives of those who participate.

Parental views on the acceptability and feasibility of measurement tools used to assess movement behaviours of pre-school children: a qualitative study.

Sophie Phillips

Sport and Exercise Sciences

Introduction: Movement behaviours (physical activity, sedentary behaviour, and sleep) are important for health and development of preschool-aged children (3-4 years). There is limited qualitative research examining the acceptability and feasibility of measurement tools (e.g. accelerometers, diaries, questionnaires) used to assess movement behaviours in pre-schoolers. This study explored parental views on various measurement tools in three deprived areas in England, UK (West Yorkshire, County Durham and Northumberland).

Methods: The study consisted of a group demonstration of different measurement tools (three types of accelerometer, accompanying accelerometer instructions and logs, a questionnaire and a diary), directly followed by focus group discussions (n=3). Discussions were transcribed verbatim and analysed using thematic analysis.

Results: Findings revealed four main themes: 1) importance of contextual information when using measurement tools (e.g. child illness, capturing different routines); 2) practical issues associated with devices (e.g. aversion to devices being attached directly to the skin of their child; concern of larger devices during sleep time; durability of devices during child play); 3) encouraging children to wear a device (e.g. making devices attractive to children- 'superpowers'); 4) presentation of diaries and questionnaires (e.g. ageappropriate movement activities, preference for real-time recording vs recall).

Conclusion: Based on the findings of this research, a series of recommendations have been developed (e.g. modifying tools including using stickers and colourful belts to make devices 'childlike') that may be used in the design, development and implementation of studies measuring movement behaviours of pre-school aged children.

Funding: This work was funded and supported by the National Institute for Health Research (NIHR) School for Public Health Research (SPHR), Grant Reference Number PD-SPH-2015.

Does what the mother eats during pregnancy affect fetal and infant behaviours?

Beyza Nur Ustun

Psychology

Background: Throughout pregnancy, a fetus is exposed to a range of flavours in the amniotic fluid which contains maternal dietary aromas. This prenatal flavour experience provides continuous sensory information from prenatal to postnatal life and equips fetuses to adapt to the world outside of the womb. There is a growing body of evidence investigating the effects of prenatal flavour exposure in neonates or infants; however, direct evidence of fetal reactions to flavours in humans has to date been lacking. This study aims to fill this gap by using a longitudinal examination of the influence of prenatal flavour exposures on behaviour from fetal to neonatal life.

Methods: 100 healthy mothers participated in three different groups; two exposed to either sweet (n = 35) or bitter taste (n = 35), and a non-exposed group (n = 30). To observe fetal reactions, all mothers underwent a 4D

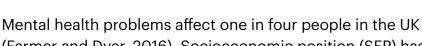
ultrasound scan at 32 and 36 weeks of gestations. From 36 weeks gestation until birth, fetuses in the experimental groups were exposed to sweet or bitter tastes repeatedly. New-borns' reactions to prenatally exposed flavours were tested by using a validated smell test.

Results: The findings of the study showed that fetal reactions differ depending on the flavour profile. Fetuses exposed to bitter taste showed a higher frequency of cryface-like reactions whereas fetuses exposed to sweet taste showed a higher frequency of laughter-face-like reactions in comparison to the other two groups. The smell test indicated that infants who were exposed to bitter taste prenatally liked the bitter smell more than the infants whose mothers did not have this exposure.

Conclusions: The findings have important implications for understanding the earliest evidence of fetal responses to different flavours regarding discriminating abilities that have the potential to shape postnatal taste preferences. "You're like a salesman, or a saleswoman, you're trying to sell that person exercise": How the socioeconomic position of an area influences General Practitioners' engagement with physical activity as a treatment pathway for mild to moderate mental health conditions

Patrick Eveleigh

Sport and Exercise Sciences



(Farmer and Dyer, 2016). Socioeconomic position (SEP) has been seen to impact both lifestyle and the quality of general healthcare (ONS, 2016). This study was the first to specifically explore how SEP of the GP practice, impacts the use of physical activity (PA) as a treatment for mental health conditions. It aimed to (I) Explore GP's experiences of physical activity and other provision for mental health, in their local area, (II) Understand perceived problems regarding access to physical activity to support mental health, and (III) Understand how existing socioeconomic inequalities may impact the treatment approach of GPs.

Participants (n=6) were recruited using convenience sampling. The inclusion criteria for this study were that GPs had to be based in England and currently working in general practice. The participants represented different socioeconomic areas, allowing a comparison and contrast across findings. Interviews focused on the provision of and access to mental health treatment pathways, barriers that GPs encountered and the healthcare inequalities that exists. A thematic analysis was undertaken (Braun and Clarke, 2019).

Results: The first theme, 'Precedence of pharmaceutical and psychological approaches as treatment pathways', focused on the growing mental health cases that GPs are experiencing. There were narrow treatment options for GPs, despite acknowledgment of PA benefits. The 'Insufficient implementation of PA schemes' theme identified perceived problems with PA schemes and the multifaceted reasons for patients' lack of engagement. The SEP was perceived to influence the GPs' and patients' attitude to treatment pathways. The 'Complexity of barriers to PA for GPs and patients' theme outlined difficulties that lead to restricted PA engagement, with COVID-19 exacerbating these. There was also inadequate interaction between GPs and stakeholders.

Conclusion: GPs working in lower socioeconomic areas experienced greater difficulties in referring and engaging patients in PA; challenges were complex and differed across localities. Findings highlight a training need around PA for GPs who work in higher socioeconomic areas and a need for improved communication between GPs, external healthcare professionals, providers and patients.

SESSION 2

Chaired by Zach Lee



'Being diagnosed': Women's experiences of obtaining a diagnosis of chronic pain in North East England

Lucy Johnson

Anthropology

'Being diagnosed' with a chronic health condition is an event which has both explanatory and predictive potential. It can explain 'what has happened' to a person, while also holding some prognostic potential about 'how things may be' in the future.

This presentation will use data from ethnographic fieldwork carried out with women who live with chronic pain in North East England, to discuss the impact diagnosis has had on the lives of those who took part in my research. I argue that, as well as doing many other things, diagnosis acts as a temporal marker in people's lives; there is life before being diagnosed, and then there is life 'living under diagnosis' (Martin, 2009).

This presentation will discuss how the act of diagnosis, or 'being diagnosed', facilitates the crossing of a threshold between 'real' and 'unreal' pain. Furthermore, I will

demonstrate how the process of being diagnosed becomes deeply entwined with an individual's illness narrative and personal history, while impacting the way they move through the present and perceive a potential future.

Increasing Physical Activity in a Medium Secure Service: (IMPACT)

Gloria Man Yee Lui

Psychology

It is known that people with severe mental health problems have poorer health outcomes and shorter life spans, compared to the general population. This significantly applies to service users residing in psychiatric hospitals, as their environmental factors can add to the difficulties in achieving a healthy lifestyle. This project is looking into coproducing an evidence-based intervention to increase physical activity, for service users residing in medium secure psychiatric hospitals, through four phases. Two NHS sites, in the North of England, are currently involved in this project. This project uses a mixed-method analysis, with both qualitative and quantitative outcomes, based off the COM-B/Behavioural Change Model.

Phase 1 looks to identify the barriers and facilitators that service users may experience, in relation to increasing their physical activity levels. Questionnaires and focus groups with service users and hospital staff are currently being conducted, to explore this.

Phase 2 looks to investigate the views on designing a physical activities intervention, that can be maintained and delivered in a medium secure psychiatric hospital. Focus groups between service users and key stakeholders will be conducted to explore this aspect further.

Phase 3 will look to create an intervention development group between service users, patient, and public representatives from the community with lived experiences and staff. The aim of this phase is to co-produce a facilitation guideline for a physical activity intervention, that can be delivered and replicated in the two NHS sites and with hope, the wider NHS mental health services.

Phase 4 will be a feasibility study, to investigate the physical activity intervention, based on information such as medication, physical health, state of the service users' mental health and motivation. The data will be collected at intervals during this feasibility study. Further data sets, that will help interpret the feasibility of the physical activity intervention, are retention rates, drop-out rates, reasoning for dropping out and how well the two NHS sites have accepted the physical activity intervention. Phase 4 will hopefully inform the feasibility for a future pilot study and potential NHS involvement in promoting the physical activity intervention nationwide.

A simulated method study of head impact forces during common contact events in rugby union

Thomas Goodbourn

Sport and Exercise Sciences

There is growing interest in the use of wearable telemetry for quantifying head impact forces sustained by rugby players during training and match play. However, few studies have examined methodological aspects of this technology.

This study identified and characterised head impact telemetry outcomes and patterns resulting from simulated rugby union contact events. Male rugby union players completed the following phases on a grass pitch: non-contact (running), one-on-one tackling, the ruck, and double tackles involving one ballcarrier and two tacklers. Linear and angular forces were recorded from head mounted units containing triaxial accelerometers and gyroscopes.

There were 198 impacts with the following median (IQR) head impact accelerations: side below waist tackle (Linear = 11.6(10.8) G, Angular = 11486.5(17651.1) rad/s2), side above waist tackle (Linear = 12.3(7.7)G, Angular = 9057(20152.9)rad/s2), front below waist tackle (Linear = 11.99(6)G, Angular = 8359.6(18332.6)rad/s2), behind below waist tackle (Linear = 10.68(8.9)G, Angular = 6028(16712.8)rad/s2), rucks (Linear = 12.3(9)G, Angular = 12729.6(26011.7)rad/s2), and double tackles (Linear = 12.9(7)G, Angular = 8378.7(17351.5)rad/s2).

Impacts with the greatest initial linear or angular magnitude were shorter in duration, except rucks. There are distinct differences in the magnitude and duration of accelerations between impact events. Rucks had the greatest variation in angular magnitude and the below waist side tackles had the greatest variation in linear magnitude. Impact events with a higher magnitude of acceleration were typically shorter in duration.

The data from this study can be used in pattern recognition and for input data in a machine learning tool to guide further analysis on larger data sets. 4

'A different voice'

Nicola Jane Kendall

Biosciences

How do we enable people living with advanced dementia to have a voice and give direct feedback about their experience? How do we support people living with advanced dementia to take an active part in research?

Namaste Care is a sensory approach to sharing time with someone living with advanced dementia and those who are at the end of their life. Evaluation of Namaste Care has so far relied on observational feedback from caregivers about whether the intervention has improved the person's wellbeing, principally based on perceptions of behaviour change. It has also shown a decrease in agitation, falls, chest infections and use of anti-psychotic medication, therefore improved wellbeing can be inferred.

This three phase study will explore whether gathering physiological data from participants can enable people living with advanced dementia who are unable to verbalise feedback to tell us directly how they feel following a Namaste Care session. To approach this in the most respectful and sensitive way, a careful consultation will first take place to inform the most appropriate and acceptable approach to data gathering in phase two. Lessons learned so far with regard the the NHS ethics process can be shared at this point.

Using a mixed methods approach, this research aims to inform national policy about the effectiveness of Namaste Care and to create an observational measure which has been validated against the physical data. Drawing together themes of dementia rights, the nature of consent, multimorbidity, ageing and frailty, as well as end of life care and the needs of family carers, this study will inform a study area which has been avoided due to issues of consent and concern about approaching fragile individuals for research purposes.

KEYNOTE

Research Culture and Interdisciplinarity

Professor Jane Macnaughton
Deputy Pro-Vice-Chancellor (Research)



SESSION 3

Chaired by Andrea Lambell



1

Measurement of breath acetone in the detection of low carbohydrate availability following implementation of 'train low' strategies

Isaac Eastham

Sport and Exercise Sciences

An endurance athlete's fuel metabolism is an essential component for endurance performance. Endurance performance is intellectually interesting because of the range of physiological (e.g., cardiovascular and muscular capacity) and genetic (e.g., cell adaptability capacity) components that are required to work in unison to optimise performance. The manipulation of an athlete's diet with an acute reduction in carbohydrate ingestion whilst training at low intensity (known as 'training low') has shown to elicit positive physiological adaptations, which could benefit endurance performance.

However, the extant evidence remains limited and equivocal. The present proof-of-concept study aims to develop systematic understanding of varying reduced carbohydrate diets and their effects on physiological

adaptation for endurance performance. Specifically, the research will investigate whether measuring breath acetone (BrAce) (a ketone present when fat is being used) is an accurate measure of carbohydrate availability to help endurance athletes obtain the maximum performance and health benefits of training low. Measuring BrAce contrasts the current method of assessing carbohydrate availability – a muscle biopsy, which involves the removal of muscle tissue and a lengthy amount of time to process and analyse.

This work will provide a less invasive, evidence-based process through which to explore fundamental biological mechanistic elements with newly available and cutting-edge technology (BrAce detection). The BrAce will be compared between four different 'train low' strategies, where there are varying amounts of carbohydrate availability during low-intensity exercise. Results should elucidate varying concentrations of BrAce following the different 'train low' strategies and subsequently enable optimisation of physiological performance adaptations.

Through combining biological theory and innovative technology, this study will provide foundational evidence to provide athletes with bespoke and specific carbohydrate measurements, in contrast to the current vague recommendations within restricted carbohydrate diets.

Leading a Shadow Life: Disorientation Felt Whilst Waiting Through Furlough

Victoria J E Jones

Geography

This paper presents the affective dimensions of waiting through furlough for those with an attachment to work life, who found the experience disorientating. Furlough was one of the multiplicity of new situations and interruptions to work and home life that the COVID 19 pandemic opened. The suspension of work life for some came as a result of the UK government initiative, the Coronavirus Job Retention Scheme. The scheme enabled employers to retain jobs, and for staff to be kept on the payroll and be paid not to work or furloughed. It was an unusual state intervention for a UK government. As such, this new world of paid non-work instigated new forms of feeling with the potential for new epistemological opportunities and implications that we are as yet to fully comprehend.

The paper draws on thirty-five in depth interviews towards building a conceptualisation of disorientation during

furlough as a bodily and relational intensity felt emotionally, sensorially, temporally and spatially within the familiar surroundings of the home. Waiting through furlough appears to have been a disorientating period for some of those that experienced it.

The paper's outlining of feelings of spectatorship, disconnection, and anxiety might suggest that furlough was felt negatively by those disorientated by it. And yet, despite the furloughed's descriptions of feeling "weird" "surreal" and "odd", they demonstrated that waiting whilst feeling disorientated can lead to better understandings of ourselves and self in relation to others.

Resting and post-sport neurocognitive performance in athletes at risk of concussion

Daniel Glassbrook

Sport and Exercise Sciences

Cognitive decline is a troubling consequence of normal ageing, however, people who play contact sports may be at a higher risk of sustaining a mild traumatic brain injury (mTBI) (La Fountaine et al., 2016). In fact, sports-related mTBI is one of the highest reported injuries in rugby union players in the UK (Hume et al., 2017).

Evidence has demonstrated links between mTBI, persistent cognitive decline and long-term neurodegeneration (Hume et al., 2017; Johnson et al., 2010; McKee et al., 2009). A mTBI is commonly known as a concussion, and is the result of a sudden movement of the brain within the cranium, and can arise from rapid rotational or linear acceleration or deceleration of the head (Jordan, 2013).

A person with a concussion can experience symptoms such as loss of consciousness, altered mental state, nausea,

headaches, vertigo and amnesia (Sharma et al., 2020). However, concussion is currently difficult to objectively assess. The Integrated Cognitive Assessment (ICA) is a newly developed method for the assessment of brain function, and may be applicable to the assessment of concussion in athletic populations. The ICA is a short test of cognitive function via an assessment of information processing speed, and is completed on a handheld device such as an iPad.

The aims of this study are 1) to establish precision of ICA results, and 2) to establish ranges of resting and post-sport participation ICA scores. Participants are being recruited from a variety of contact and non-contact sports, and to date 71 participants from six sports have completed testing. Data collection is ongoing and will be completed early June 2022, prior to analysis of results. It is hypothesised that ICA scores will improve after participation in sport, where there has not been a concussion.

FLASH PRESENTATION SESSION

Chaired by Leanne Trick



The Impact of Milk Protein Ingestion on Resistance Exercise-Induced Muscle Damage in Untrained Males and Females

Alice Grace Pearson

Sport and Exercise Sciences

Introduction: Whole-food sources of milk protein, such as cow's milk and dairy yoghurt, are an easily accessible and affordable dietary staple that have shown beneficial for exercise recovery by means of enhancing rehydration, carbohydrate storage, and protein synthesis. Milk protein also has been implicated in the management of exerciseinduced muscle damage (EIMD). EIMD is marked by loss of muscle function and increased soreness, which may delay exercise recovery and, over time, limit muscle mass and strength gains. However, the majority of research to date has been conducted with males and apparent sex differences in EIMD prevent the application of study outcomes to females. Therefore, the present doctorate study aims to address this underrepresentation by examining the impact of milk protein ingestion on resistance EIMD in males and females.

Methods: In a randomised, single-blind, parallel group design, 21 healthy untrained volunteers (n = 7 males, 14 females) completed baseline assessments of maximal leg strength and body composition with dual-energy X-ray absorptiometry before being randomly assigned to a milk protein (dairy yoghurt, n = 11) or control (oat-based yoghurt, n = 10) condition. Following a ≥3 wk washout period, participants performed a resistance exercise bout comprising 3 sets to volitional failure of leg extension and leg curl. Participants consumed 4 doses per day of the allocated yoghurt for the subsequent 4 days and EIMD was assessed. Measurements of muscle soreness, muscle swelling, flexibility, and blood markers of cell membrane damage were taken before, after, and 24, 48, 72, and 168 h after exercise, while maximal leg strength was assessed at 72 and 168 h post exercise.

Results: Data collection is ongoing until July 2022 (n = 21 to date).

Anticipated impact: This research will shed light on potential sex differences in EIMD and inform sex-specific nutritional recommendations for EIMD management and exercise recovery.

Belonging, mental health, and help-seeking at Durham University

Rosie Harris

Anthropology

Previous research has suggested there is a positive correlation between sense of belonging and mental health. This mixed methods research project explores student sense of belonging at Durham University, as well as student mental wellbeing and resultant help-seeking.

The research aims to explore links between these concepts, as well as investigating whether experiences vary based on sociodemographic factors, such as gender, ethnicity, sexuality, international student status, socioeconomic status etc.

A quantitative survey and qualitative interviews will be completed by Durham University students. Durham University was selected as it has been found to lack diversity and inclusivity, therefore it is a pertinent location for the study of belonging and mental health. The sample will be selected using maximum variation purposive

sampling to ensure it is diverse and captures a range of views. The survey will consist of scales that measure belonging, mental wellbeing, and help-seeking intentions. The semi-structured interviews will allow for detailed answers, from which prominent themes will be identified. Some university wellbeing staff will also be interviewed to provide insight from those involved in support provision.

A critical medical anthropological lens will be used to analyse and discuss the research, with the intention of understanding structural factors that might affect student experiences. The research will contribute detailed insight about student wellbeing and suggest recommendations for further study and action.

The Cost of Caring for Others and Yourself: Personal Motivation Predicts Compassion Fatigue among Pro-Refugee Allies

Olivia Grace Buckley

Psychology

As the common idiom teaches us, you cannot pour from an empty cup. 'Compassion fatigue' (CF), the depletion of motivational resources following occupational stressors and vicarious traumatisation, arises when caregivers try to do just that. Pro-refugee allies are structurally vulnerable to CF because they form a distinct minority of individuals advocating for refugees in overstretched services, whose work often lies at the mercy of grand necropolitical actions. They work alongside refugees who are often victims of immeasurable trauma and political hostility in societies in which refugees are publicly stigmatised.

Since CF is characterised by amotivation, this study examined how the nature of allies' motivation (egoistic vs altruistic), and self-efficacy beliefs, predict allies' propensity to experience this phenomenon. In light of the working culture of extreme selflessness within activism, it was hypothesised that pro-refugee allies motivated by personal gain may be at particular risk of CF (H1), which the data supported. Exploratory analysis found the desire for direct, hands-on experience to be the main driver of this effect. Conversely, activists have been reported to derive emotional energy from moral conviction, hence moral motivation was predicted to decrease CF (H2).

Similarly, past research suggests high self-efficacy allows activists to handle stress and trauma, so self-efficacy was hypothesised to negatively predict CF (H3), and positively moderate motivation-CF relationships (H4 and H5). However, hypotheses two to five were not supported by the data. Nonetheless, by unifying allyship and burnout literature, this study has revealed that egoistic motives, particularly the desire for person-facing work, predispose CF.

This study proposes that activists motivated by personfacing work may undertake more work of this nature, thus be more trauma-exposed and more prone to interpersonal tension, known to exacerbate CF in the activist community. It hopes to be the first of many investigating the motivational contributions to CF, a line of enquiry which can inform CF-prevention interventions and pay dividends to academics, organisations, and movements alike. 4

Anorexia Nervosa and The Legislative Conflict of Governance: Should the Law Make you Eat?

Rachel L Jenkins

Law School

Since it first appeared in the legal sphere in 1992, the condition of Anorexia Nervosa (AN) has faced considerable nosological turbulence, proving troublesome for medical practitioners and judicial figures alike. This has been somewhat compounded by the 'conflict of governance' between the Mental Capacity Act (MCA) and Mental Health Act (MHA), which both pertain to interrelated clinical populations.

AN treatment can be sanctioned under both pieces of legislation notwithstanding their competing aims of empowerment on one side, and compelled care on the other. Resultantly, it is apparent that the law can make an anorexic eat, but whether or not it should and how this is authorised will be the focus of this talk.

This will fall within both Mental Health and Women's Academies, as treatment compulsion is frequently gendered and considered to be a feminist issue. Following the recent discovery of AN's genetic underpinnings, this will provide a basis from which to suggest that MCA application is most applicable legislative framework, with aberrations in the brain circuitry of anorexics rooting the condition in the sphere of biology.

It is therefore arguable that the law should reflect this to provide greater consistency and Parity of Esteem.

Trauma and distrust in criminalised women

Fleur Riley

Psychology

Trust is central to social cooperation and vital for prison functioning and offender rehabilitation. Trusting relationships between prisoners and staff encourage cooperation, healing and engagement in rehabilitative programs. Most women in prison have histories of severe and protracted trauma, abuse and gender-based sexual violence, often perpetrated by known others such as fathers or other close caregivers.

This high-betrayal trauma acutely impedes women's ability to develop trusting relationships. Furthermore, extremely low reporting and conviction rates of gender-based crimes suggest that women's own perpetrators are rarely brought to justice. Little is known, however, about the impact of past trauma and potential injustice on women's trust (or distrust) in the criminal justice system, its officials, laws and practices.

This is a question of particular pertinence to women who are themselves subjected to imprisonment, often for comparatively minor non-violent and non-sexual offences.

This study aims to explore issues of interpersonal and institutional distrust with women who have experienced trauma and incarceration, with a view to better understanding traumatised women's rehabilitative needs. Adopting a feminist methodology, qualitative data will be gathered in semi-structured interviews that prioritise the women's own words, experiences and opinions. Data will be analysed inductively using thematic analysis, and common themes and latent meanings identified.

Findings will inform gender-sensitive policy and practice in women's prisons and provide evidence for trauma-informed trust-based interventions. The effect of water versus a sports drink on aerobic performance of female athletes: an experimental randomised cross over trial.

Bethany Fitzsimmons

Sport and Exercise Sciences

Sports drinks are used by many people, from elite athletes to general fitness enthusiasts. In the literature, there have been many studies assessing the effectiveness of sports drinks compared to water. However, there are very few studies which focus specifically on female athletes. The present study was to assess the effectiveness of sports drinks compared to water for female athletes exercising continuously for 60 minutes. The effectiveness will be assessed by hydration levels and Rate of Perceived Exertion (RPE).

Methods: A within-in subject, single-blind randomised cross over trial with 11 female athletes (aged 20.91 \pm 2.11 [2dp] years; height 167.27 \pm 6.77 [2dp] cm; body mass 65.54 \pm 6.76

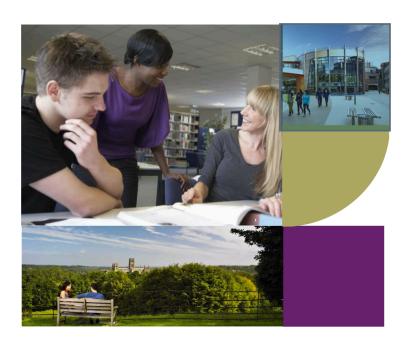
[2dp] kg), was used. The participants cycled for 60 minutes in a temperature-controlled laboratory at 70% of their VO2Max. Each participant attended two trials with a different drink each time. They received 250ml of the drinks at 20-minute intervals starting at 0 minutes. Their pre and post body weight and urine osmolality were recorded. During the trial, RPE was recorded for their whole body, lower legs and gastrointestinal at 15-minute intervals, starting at 0 minutes. This distance they cycled was recorded at the end of the trial.

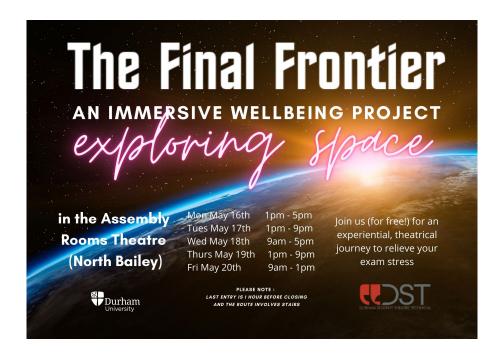
Results: The only significant result was the interaction of time for the RPE results, with the significant difference as follows, whole-body (P= 0.039), legs (P= 0.000) and gastrointestinal (P= 0.001). There was no significant difference (P= 0.184) between the distance travelled (P= 0.184), body weight (P= 0.379), urine osmolarity (P= 0.482), RPE whole body (P= 0.600), lower limbs (P= 0.686) or gastrointestinal (P= 0.145) in each of the drink's trials.

Conclusion: This study indicated there are no significant differences between sports drinks and water on female athletes' hydration status or RPE when exercising for 60 minutes at 70% of their VO2Max.

POSTER PRESENTATION

James Fox Robinson





The brainchild of James Fox Robinson, Durham University's Lead Theatre Technician, The Final Frontier began as a project to combat student's exam anxiety but grew into an experience enjoyed by students, staff and the general public.

An immersive, theatrical journey around the Assembly Rooms Theatre, participants explored different aspects of the theme 'space'. The project was a collaboration between the theatre, student technicians, the physics department and student wellbeing.

After an introductory video voiced by a student and picking up headphones, participants made their way into the

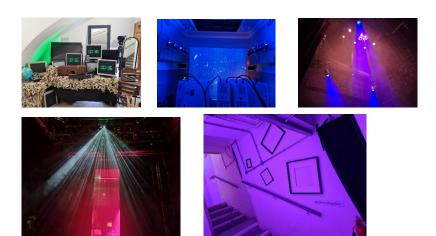
Auditorium for an audio-visual presentation exploring the theme of 'beauty' within astrophysics. The Stage was an immersive area exploring the idea of traveling through the cosmos using projection, lighting and sound. Continuing down the stairs, participants explored a physics student's sonification project and how we frame ourselves before heading into the 'woods' to find some tips on headspace. The project closed with 2 other areas. Firstly, a representation of Mars with a series of reflections based on the names of NASAs robotic vehicles. Lastly, a glow in the dark space with further reflection activities, information and wellbeing freebies from the Student Welfare team.

Thanks to all the Collaborators for their generosity of time and energy: The Assembly Rooms Team, James Goodall, Peter Noble, Anna Hayward, Rhiannon Morgan, Dragos Farcas, Fionagh Thomson, Samuel Kirkman, The AV Team, Michael Crilly & Collingwood College, Harry Clipston & Butler College, Matt Townson, Cyril Bourgenot, Valentina Sulis, DST Exec, Rachel Welch, Wrong tree, The Music Department, Library Staff, Paula Chadwick, Richard Massey, Mark Swinbank, Leah Morabito, Richard Bower and others from the Physics Department.









The project had over 150 visitors during the week and we had some very positive feedback.

What were your key take aways from this event?

- Immensity of space, ideas for meditation
- Even though life seems large and overwhelming, everything will be okay
- See beauty everywhere you go
- Life is for living
- Everything is going to be okay, I'm in control and have a lot to be grateful for even on bad days
- Take a deep breath, it's ok, it's going to be alright

- This was a great de-stress
- It's good to spend time thinking with some atmospheric music away from other technology
- That taking time to relax and have fun still is very important during exams
- It was so nice having time to relax and take in art created by others while reflecting on my current situation
- The universe and the world is beautiful, and I'm so happy that I'm alive to see it
- Space is really cool. Durham is great

Any overall feedback for the event?

- I was a huge fan overall, thanks for hosting!
- Great initiative, loved it!
- Such an immersive experience! Really loved it. Space is so awesome.
- I'm so relaxed. I can't think of words to describe how I feel

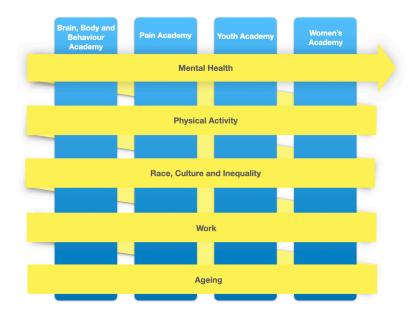
- Really pleasantly surprised! Experienced the whole thing on 3 hours sleep and it was just what i needed
- A wonderful sensory and cerebral distraction. Thank you!
- A really creative and immersive project, It felt so completely different to the AR I'm used to and that in itself was incredibly relaxing and calming
- An excellent idea and much appreciated
- I really enjoyed it, it was clear that a lot of care and attention had gone into it!

"I felt peaceful for the first time in two weeks. Completely taken out of the library into a space where I found freedom and play. I was allowed to have a laugh and explore the space in a way that was beneficial to me. There was no pressure to be calm, or to feel a particular way. The space was my own and I'm so grateful I had this opportunity."

ABOUT THE WOLFSON RESEARCH INSTITUTE FOR HEALTH AND WELLBEING

The Wolfson Research Institute for Health and Wellbeing, established in 2001, is a major interdisciplinary unit within Durham University that fosters research on human health and wellbeing in both developed and developing countries.

Our mission is to encourage and support high calibre interdisciplinary research to understand and address human health challenges.



We do this through our **Challenge Academies**. Each has been carefully built to address local and global unmet need in health-related issues. Closely aligned with the Sustainable Development Goals, these Academies have the interdisciplinary approach unique to Durham University built in. In this way, each Academy can address major problems in health and wellbeing, but also be responsive to new challenges as they arise.

We help our Challenge Academies grow, fostering networking, identifying and assisting with funding opportunities, expanding their internationalisation and ensuring impact through clinical, industry or policy collaboration. This approach is central to our core ethos

where our Academies address **the beginning** (identifying the correct question), **the middle** (understanding who the problem affects and how) and **the end** (how we can use this knowledge to create purpose built solutions that don't just help some of the people some of the time but all of the people, all of the time).

So, what is it that we do?

When we think about the health of humanity, we often think about ill-health. Traditionally, many approaches to ill health are rooted in a biomedical model (what are the symptoms, what is wrong with the body and how do we fix it). This is central to pathogenesis (the study of how we get ill). However, we believe that salutogenesis (the study of what keeps us well) is of equal if not greater importance. We sit at the very confluence between pathogenesis and salutogenesis.

By investigating all of the factors that can affect human health, from socio-economic status, to psychosocial factors, through the environment, faith, familial structure, dependants and so many more issues, we can build a picture evidencing the role that each of these have in "the Picture of Health" of individuals, communities and societies. We can look for malleable factors and track how making small and big changes to how we live impacts our collective health and wellbeing. Further still, by understanding how our place in the world and our experience of health affects our bodies, we can begin to predict individual and societal

health issues, with the ultimate aim of arresting their progress.

Finally, in cases of ill-health, we can evidence the efficacy of treatments not based merely on the biomedical model but also the socio-environmental model we have built through our understanding of people, their place, and how they live. By targeting treatments to those for whom they will work, we provide an evidence base to assist in clinical or policy decision making, improving efficacy, and process in a purpose-built manner.

For more information please visit https://www.durham.ac.uk/research/institutes-and-centres/wolfson/

