



# RCCM Annual Conference 2024: ABSTRACTS

<b>Oral 1: Research methods in IM - embracing complexity &amp; Systematic reviews</b>	<b>3</b>
<b>1.1 "Thursday afternoon in clinic": Why complementary therapies are truly complex interventions, and possible strategies for investigational research</b>	<b>3</b>
1.2 Examining a protocol of electroacupuncture as a complex intervention for sciatica through scoping review, expert practices, and case study vignettes.	3
1.3 Reflexology Specific Guidance for using the Template for the Intervention Description and Replication (TIDieR): a Delphi study	4
1.4 The effectiveness of L-methyltetrahydrofolate versus folic acid supplementation in reducing the risk of adverse pregnancy outcomes in women carrying MTHFR polymorphisms experiencing ongoing fertility issues. A Systematic Review with Meta-analysis	5
<b>Oral 2: Providing and researching IM in NHS settings</b>	<b>6</b>
<b>2.1 Carrying out an Observational Mixed-Methods Case Study within a busy NHS service - challenges, outcomes and next steps</b>	<b>6</b>
<b>2.2 Evaluating the outcomes and patient experience of group and individual acupuncture in and NHS cancer care setting: a mixed methods study</b>	<b>7</b>
2.3 The provision of Traditional, Complementary and Integrative Medicine for adults at end-of-life care in Hospices in England: a mapping exercise	7
2.4 Perceptions of yoga as a wellbeing intervention for UK healthcare professionals: A mixed methods study	9
<b>Oral 3: Feasibility and pilot studies of interventions</b>	<b>9</b>
3.1 Wearable Technology for Promoting Physical Activity in Middle-Aged Adults with Chronic Musculoskeletal Pain.	9
3.2 Understanding how online Solution-focused hypnotherapy can support the wellbeing of police personnel and treat symptoms of anxiety and depression	10
3.3 A feasibility trial of Self-Acupuncture for patients with Migraines (SAM) protocol	11
3.4 Supporting women after pregnancy termination for medical reasons: a pilot randomised controlled trial of a Sophrology wellbeing intervention	12
<b>Posters</b>	<b>14</b>
<b>P1 Being Treated in an Open Setting Reminds Us That We All Have Problems: Experiences and Self-Reported Clinical Outcomes of Service-Users in a Multi-Bed Acupuncture Teaching Clinic</b>	<b>14</b>

P2 Pilot research study to investigate the efficacy of a specific reflexology sequence for chemotherapy induced peripheral neuropathy pain in cancer survivors.	15
P3 THE STATE OF THE EVIDENCE ON THE EFFECTIVENESS AND THE SUBJECTIVE PATIENT EXPERIENCE OF LESSERIAN CURATIVE HYPNOTHERAPY, COGNITIVE BEHAVIOURAL THERAPY AND MEDICATION IN TREATING ANXIETY DISORDERS AND POST-TRAUMATIC STRESS DISORDER	16
P4 A case study into a Sophrology intervention to promote wellbeing among individuals in recovery from alcohol use disorder.	17
P5 Does Facial Cosmetic Acupuncture Improve the Appearance of Wrinkles? A Narrative Review of the Literature	17
P6 Acupuncture or nutritional therapy for atrial fibrillation: a mixed methods case series study	18
P7 Evaluating the impact of a 14-day food programme on emerging adults (18-24 year-old) University students on subjective health measures (emotion, sleep and energy) food literacy and culinary aptitude.	19
P8 Nutritional interventions for long-COVID: a systematic quantitative literature review	20
P9 Feasibility study: Effect of virgin coconut oil in older adults diagnosed with mild to moderate dementia.	20
P10 Pharmacological Properties and Ethnomedicinal Uses of Rosa damascena (Rose) Flowers a sustainable approach -	21
P11 Mushrooms, Gut Microbiota and Cancer: a scoping review with qualitative synthesis	21

## Oral 1: Research methods in IM - embracing complexity & Systematic reviews

10.00- 11.00

### 1.1 "Thursday afternoon in clinic": Why complementary therapies are truly complex interventions, and possible strategies for investigational research

**Dr Karen Charlesworth, University of York and Northern College of Acupuncture**

**Presenting: Karen Charlesworth**

The latest NIHR/MRC guidance on complex interventions (Skivington et al., 2021) goes further than any of its predecessors to provide a framework for investigating complex interventions; it now incorporates complexity science and widens out the types of methodology recommended to investigate complex interventions. But the framework is still essentially based on the principles of reductionist scientific method and it therefore fails to allow for properly representative investigations of most complementary therapies as practised in the real world. In this presentation, complementary therapies will be interpreted as "truly" complex interventions, dynamically adapting to the needs of the individual patient at a specific point in time, in contrast to the constrained adaptations of a so-called complex intervention as envisaged by the NIHR framework. The problems of investigating "œtruly" complex interventions using reductionist scientific principles will be discussed and illustrated using examples from acupuncture and other complementary therapies. Strategies will be suggested for investigating a full scope of the "real world" effects of complementary therapies, including extensions to the scope of existing investigational methodologies, and recommendations will be made for future methodological development.

### 1.2 Examining a protocol of electroacupuncture as a complex intervention for sciatica through scoping review, expert practices, and case study vignettes.

**Rick Sorensen Scott - Northern College of Acupuncture, Dept. of Advanced Oriental Medicine; Ava Lorenc, PhD - Northern College of Acupuncture, Research Supervisor**

**The study has been submitted for publication and is in the pre-publication stage.**

**Presenting: Rick Sorensen Scott**

Background

Sciatica affects a significant population of adults, with conventional treatments providing limited relief. Acupuncture is a Complex Intervention (CI) that presents promising alternatives for sciatica. Literature on electroacupuncture (EA) sciatica protocols often omits comprehensive details required for rigorous testing and replication.

Study Aim

The study aims to build a foundation for subsequent CI phases by examining the author's sciatica protocol, identifying potential areas for refinement and study, and filling a gap in EA CI Phase-I (design) sciatica literature.

Methods

This Phase-I CI study explores the author's pre-defined EA sciatica protocol, guided by the Medical Research Council's (MRC) framework and the Criteria for Reporting the Development and Evaluation

of Complex Interventions in Healthcare (CReDECI 2) guidelines. The study's objectives were to detail the protocol's theoretical foundation, analyse components, justify the selection and function of these components, investigate component synergies, and examine contextual factors through case studies.

## Results

A scoping review was selected, and an analysis of 593 records identified 25 relevant studies (n=71 articles). Experts (n=4) provided practical insights, and textbooks (n=24) provided acupoint data. Data demonstrated concordance in the theoretical foundation (Traditional Chinese Medicine), components (acupoints=71.67%, DeQi=52.47%), and adverse events (vignettes=16.67%, review=16.67%). Findings from case studies (n=3) demonstrated the protocol's potential to provide pain relief with minimal adverse events (suggesting synergy) and potential applicability across diverse patient demographics (providing context). Synthesis examined the alignment between findings and the author's protocol, identifying areas of concordance and using areas of discordance as potential future refinements and research directions.

## Conclusion

This appears to be the first Phase-I CI study for electroacupuncture sciatica treatment using STRICTA, MRC and CReDECI 2, addressing knowledge gaps. Key divergences in technique (acupoint combination, electroacupuncture settings, needle insertions, decreasing treatment frequency) and broader outcome measures were identified as potential areas for future refinement and study. This study recommends a CI Phase-II (feasibility) study to conduct pilot testing where the protocol is tested "as-is" before exploring refinements. Subsequent phases would use randomised and comparative studies to validate and assess efficacy against refinements and address the current limitations before further effectiveness testing.

This study meets its objectives and builds a foundation for future Phase-II (feasibility/pilot) testing of potential refinements, effectiveness, adaptability, and generalisability in clinical practice. Advocating for future research, this study emphasises the importance of design stage (Phase-I) research in building solid foundations for subsequent phases using MRC and CReDECI 2's emphasis on developing evidence-based, patient-centred CIs.

## 1.3 Reflexology Specific Guidance for using the Template for the Intervention Description and Replication (TIDieR): a Delphi study

**1. Jacqueline James, Professional Doctorate student, c/o Dr Amy Drahota (supervisor), School of Health & Care Professions, University of Portsmouth** **2. Joseph T. Costello, School of Sport, Health and Exercise Science, University of Portsmouth,** **3. Sally Edwards-Price, University of Wolverhampton;** **4. Tracey Smith, Association of Reflexologists (AoR);** **5. Amanda McAuley, Reflexologist and Reflexology tutor at Jubilee College;** **6. Barbara E. Scott, University Of Wales;** **7. Spyridon Dimitrakoulas, Reflexologist and Reflexology tutor;** **8. Marcia Edwards, Pathway2Wellbeing;** **9. Dorothy Kelly, Reflexologist and Reflexology tutor;** **10. David L. Wayte, Jubilee College, Hunters Moon;** **11. Andrea F. Porritt, Reflexologist;** **12. Amy K. Drahota, School of Health & Care Professions, University of Portsmouth**

### Presenting: Jacqueline James

Background: Reflexology, is a holistic, complementary therapy, carried out on the feet, hands, ears or face. There is no single accepted definition of reflexology, as it encompasses various practices making it important that research studies articulate exactly what the reflexology intervention entailed.

**Aims and objectives:** This presentation will highlight the importance of good intervention documentation for research-informed practice, study replication, and systematic reviews. The presentation will describe the reflexology-specific guidance which has been produced for researchers and practitioners, as part of this project.

**Methods:** The reflexology guidance was produced by a multi-national team of experts who took part in a three-round Delphi process. The panel (n=43) consisted of reflexology practitioners (n=29; median years' experience = 10), researchers (n=12; median number of studies = 2, range 1 to 18) and methodologists experienced in producing reporting guidance (n=2). The panel had representatives from England (n=33), Scotland (n=1), Northern Ireland (n=2), Wales (n=1), Greece (n=1), America (n=1), Taiwan (n=1), Australia (n=2) and New Zealand (n=1). Two online consolidation meetings (n=22 panel members) were then held to agree the wording and examples for the guidance document.

**Results:** The guidance expands on the Template for Intervention Description and Replication (TIDieR) reporting checklist, with reflexology-specific explanation and illustrations across 12 domains: (1) brief title; (2) why; (3) what materials; (4) what procedures; (5) who provided; (6) how; (7) where; (8) when and how much; (9) tailoring; (10) modification; (11) how well planned; (12) how well actual. The guidance has been produced and submitted for publication.

**Conclusion:** Using the reflexology-specific guidance for intervention studies when authors report on their studies will ensure that the studies are usable, replicable, and able to be combined productively within systematic reviews.

## 1.4 The effectiveness of L-methyltetrahydrofolate versus folic acid supplementation in reducing the risk of adverse pregnancy outcomes in women carrying MTHFR polymorphisms experiencing ongoing fertility issues. A Systematic Review with Meta-analysis

**Charlotte Cliffe ANutr 1, Miranda Harris MSc 1,2**

**1 School of Allied Health and Community, University of Worcester, UK.**

**2 Corresponding author: Miranda Harris, Senior Lecturer**

**Presenting: Miranda Harris**

**Background:** Miscarriage, one of the most common adverse pregnancy outcomes, affects 10-30% of all pregnancies with recurrent pregnancy loss (RPL) affecting 1-5% of pregnancies. MTHFR gene variants, essential to folate metabolism, contribute to adverse pregnancy outcome risk. Involved in converting folic acid to the biologically active 5-methyltetrahydrofolate (5-MTHF), MTHFR is crucial to mitigating homocysteine-related pregnancy complications. Defected MTHFR genes produce 17%-75% less 5-MTHF than healthy genes. Controversy persists regarding the efficacy of folic acid vs 5-MTHF supplementation in those with MTHFR polymorphisms.

**Aim:** This study aims to investigate the effectiveness of these interventions in reducing the risk of adverse pregnancy outcomes in those carrying MTHFR polymorphisms.

**Methods:** Following PRIMSA, a systematic review with meta-analysis was carried out searching MEDLINE, PubMed, PsycINFO, CINAHL. Two meta-analyses were carried out on primary: miscarriage risk, and secondary outcomes: total adverse pregnancy risk - a composite of non-pregnancy, PE, PTL and miscarriages. The dichotomous data was analysed using a random-effects model assessing risk ratio (RR) at 95% confidence intervals (CI).

Results: Four studies were included in the meta-analyses. The first analysis revealed a non-significant relationship between 5-MTHF and miscarriage risk ( $Z = 1.69$ ,  $P = 0.009$ , (95% CI)  $RR = 0.45$ ,  $I^2 = 86\%$ ). Subgroup analyses revealed a significant effect in RPL populations only ( $Z = 1.96$ ,  $P = 0.05$ ) and comparing 5-MTHF to high-dose FA ( $Z = 2.22$ ,  $P = 0.03$ ). A second meta-analysis revealed 5-MTHF to significantly reduce ( $Z = 2.49$ ,  $P = 0.01$ ,  $RR = 0.57$ ,  $I^2 = 85\%$ ) the risk of total adverse pregnancy outcomes ( $RR = 0.57$ ). GRADE analysis revealed both analyses to be very low quality.

Conclusion: 5-MTHF demonstrates a potential to reduce adverse pregnancy risk in those with MTHFR, especially for miscarriages in those experiencing RPL. However, the results are tempered by high heterogeneity, warranting caution over the uncertainty of findings. The study highlights the need for further research to address gaps, scrutinise heterogeneity and produce more robust findings for tailored guidelines in individuals with MTHFR polymorphisms.

## Oral 2: Providing and researching IM in NHS settings

14.00- 15.00

### 2.1 Carrying out an Observational Mixed-Methods Case Study within a busy NHS service - challenges, outcomes and next steps

**Julie Cosgrove - Guys and St Thomas NHS Trust**

**Presenting: Julie Cosgrove**

#### Summary

Patients accessing the Complementary Therapy Service at Guys Cancer Centre presenting with Chemotherapy Induced Peripheral Neuropathy (CIPN) and choosing the bodywork pathway were offered four sessions of an aroma-reflex protocol (as per the standard service) but also invited to provide additional information as part of a service evaluation.

The practicalities of collecting additional information within the busy service provided lessons on the pragmatics and constraints surrounding "real world research" as well as a glimpse at the benefits of working in a more reflective manner with patients.

The intended data gathering included quantitative data and qualitative patient feedback. Time constraints (both within and external to clinic time) and patient complexity meant that the initial plans for data gathering were over-ambitious and the resulting information less rich than intended. However, the number of participants was sufficient to provide a good indication of the range of patient presentations and benefits both from objective and subjective sources. This has enabled a re-scope of the intended project outcomes.

#### Results

In total 21 pts were recruited and received an aggregate of 76 treatments. The majority (13) of patients had finished their chemotherapy regimes, four were still in active treatment and four were on a treatment break.

Initial MYCAW questionnaires were completed with the majority of patients, but it was found challenging to also complete EORTC surveys. Some of the planned tools (hand and foot maps and the Likert Scale) were found to be useful to draw out patient experiences but were not suitable to be used consistently across all patients: some engaged with them better than others.

Pt outcomes were grouped in seven classes from the combination of feedback and observation. This categorisation was found to be useful and will be carried forward in further evaluations.

There were several positive unforeseen consequences including wider discussions with other NHS staff, increased requests from patients for external referrals and an increased therapist awareness of both the complexity of patient presentations and longer-term outcomes.

#### Conclusion

Data gathering should be cut back, and more patient led and 'smarter' (e.g. using voice recording) within the service evaluation framework. Within the NHS there is the opportunity to move towards wider collaboration and data gathered can be used as a springboard to develop awareness of the service and its function within the package of care offered to patients.

“Insanity is doing the same thing again and again and expecting different result” Albert Einstein

## 2.2 Evaluating the outcomes and patient experience of group and individual acupuncture in and NHS cancer care setting: a mixed methods study

**Mandy Brass, Northern College of Acupuncture, Guy's and St Thomas' NHS Foundation Trust**

**Karen Charlesworth, Northern College of Acupuncture**

#### Presenting: Mandy Brass

Background: Acupuncture for cancer care is safe and effective and can be provided in group or individual settings. Previous literature has compared group acupuncture (GA) with individual acupuncture (IA) for specific cancer-related symptoms or patient experience, but has not correlated symptoms with patient experience between GA and IA. This service evaluation, using a mixed methods design, aims to compare GA with IA for symptom-related outcomes and patient experience and explore their inter-relationships, in order to inform future development of the service.

Methods: Cancer patients referred to the acupuncture service in a UK NHS hospital received six treatments of GA or IA. Outcomes were gathered using Measure Yourself Concerns and Wellbeing (MYCaW) questionnaires pre- and post-treatment. Experience of acupuncture was gathered post-treatment using an open-ended questionnaire.

Results: 48 participants' data were analysed using mixed methods. There were statistically significant improvements in outcomes overall, with no difference between GA and IA. Experience of acupuncture was analysed using reflexive thematic analysis. Three themes were identified; physical and emotional change versus expectations, the gift of time and the clinical environment. Most participants had a positive experience; IA participants focused more on the relationship with their acupuncturist whilst GA participants focused more on environmental factors. For a few GA participants, the group experience was negative, but data synthesis revealed this did not impact outcomes. Being a researcher-practitioner impacted all stages of the research.

Conclusion: In both GA and IA arms, symptom-related outcomes mostly improved alongside a positive experience. For those participants for whom GA was not an ideal setting, there was no effect on symptom-related outcomes.

## 2.3 The provision of Traditional, Complementary and Integrative Medicine for adults at end-of-life care in Hospices in England: a mapping exercise

**Charlotte Gray, Liverpool John Moores University**

## Presenting: Charlotte Gray

**Background:** The UK hospice movement recognises TCIM as part of a holistic approach to an individual's end-of-life care (EoLC) [1]. However, no national framework supports its integration [2]. The NHS led a collaboration of 34 EoLC organisations to produce "Ambitions for Palliative and End-of-Life Care: A National Framework for Local Action 2021-2026". However, TCIM was omitted, and TCIM practitioners were not represented [3]. In 2022, the UK National Health and Social Care Act created 42 local Integrative Care Boards (ICBs) nationwide, divided into seven areas [4]. The reform included an amendment to make Palliative and EoLC services a legal requirement for ICBs to deliver upon.

**Aim:** To map the current provision of TCIM for adults at EoLC in Hospices in England in each ICB. The research will inform part of a Doctorate at Liverpool John Moores University.

**Methods:** Hospices in England were identified in each of the 42 ICBs [5], and exclusion criteria were applied. Literature available in the public domain was reviewed from the eligible hospices, and the Virtual Health Library's (VHL) thematic structure for classifying TCIM modalities [6] was used to categorise each hospice's TCIM provision. The VHL framework has three categories: Traditional Health Systems (THS), such as acupuncture; Complex Non-Traditional Medical Systems (CNTMS), such as homeopathy; and Therapeutic Methods, including massage, reflexology and reiki. Additional analysis was undertaken to understand any correlations between ICB data and the provision of TCIM.

**Results:** In England, 151 hospices provide TCIM, with many offering multiple therapies. Hospices collaboratively offer at least 419 incidences of Therapeutic Methods; 23 provide one THS modality of acupuncture, and 2 provide modalities from a CNTMS, one of Osteopathy and one of Homeopathy. England's three most deprived ICBs are in the North West and the Midlands [4]. Acupuncture, the only TCM offered in some hospices, is least prevalent in these areas. The lowest prevalence is in the North West, at 4.7%, followed by the Midlands, at 10%.

**Conclusion:** Some TCIMs are already widely offered within hospices in England. Most hospices provide multiple therapeutic methods, but there is a distinct lack of THS and CNTMS modalities. The World Health Organisation recognises these modalities despite their limited use in English hospices but adoption among the general UK population [7]. Without a framework to facilitate TCIM provision, patients may be unable to access its benefits as part of their healthcare, creating disparities in health access.

### References

1. St Helena Hospice., (2022). Complementary Therapies [online] Available at <https://www.sthelenahospice.org.uk/how-we-can-help-you/for-patients-and-families/complementary-therapies> [Accessed November 2022]
2. Stanley, S. (2003). Conversation with Sarah Stanley, Marie Curie Research nurse, December 11
3. National Health Service England. (2021-2022). Ambitions for Palliative and End of Life Care "a National Framework for Local Action 2021-2026 [online] Available at <https://www.england.nhs.uk/publication/ambitions-for-palliative-and-end-of-life-care-a-national-framework-for-local-action-2021-2026/> [Accessed July 2022]
4. The Health Foundation, 2022. Integrated Care Systems: what do they look like [online] Available at <https://www.health.org.uk/publications/long-reads/integrated-care-systems-what-do-they-look-like> [Accessed May 2024]
5. Hospice UK. (2023). Hospice Care Finder [online] Available at [www.hospiceuk.org](http://www.hospiceuk.org) [Accessed 17 December 2023 & 8 May 2024]
6. Virtual Health Library TCIM Americas. (2018). Thematic Structure for Traditional, Complementary and Integrative Medicine [online] Available at <https://mtci.bvsalud.org/en/thematic-structure-for-vhl-tcim> [Accessed April 2024]
7. World Health Organisation. (2019). WHO Global Report on Traditional and Complementary Medicine [online] Available at <https://www.who.int/news/item/20-05-2019-the-who-global-report-on-traditional-and-complementary-medicine-2019-is-released> [Accessed September 2022]



## 2.4 Perceptions of yoga as a wellbeing intervention for UK healthcare professionals: A mixed methods study

**Lucy Doyle, University of Westminster, UK; Dr Tina Cartwright, University of Westminster, UK; Dr Tom Nadarzynski, University of Westminster, UK; Professor John Golding, University of Westminster, UK**

**Presenting: Lucy Doyle**

**Background:** Healthcare workers (HCWs) in the UK and around the world experience high levels of stress and burnout and often experience poorer wellbeing than staff in other sectors. Whilst controlled trials show evidence of short-term yoga interventions being beneficial for supporting HCW wellbeing, it is important to understand perceptions, acceptability, and feasibility of it within this group if such interventions are to be successful in practice in an increasingly strained healthcare system.

**Study aim:** This research was conducted to capture UK HCWs' perceptions of yoga as a workplace intervention to support their wellbeing, with the intention of tailoring an online yoga programme for staff in the National Health Service (NHS).

**Methods:** 288 HCWs responded to an online survey capturing demographic information, mental wellbeing, experiences of wellbeing support at work, and perceptions of yoga. Open-ended questions assessed perceptions and experiences of yoga. Initial qualitative analysis of open-ended answers was conducted using thematic analysis and is presented here.

**Results:** Respondents were primarily female (81%), white (84%), and NHS workers (79%). Analysis of open-ended responses resulted in the development of four themes pertaining to perceptions of yoga and implicit factors impacting uptake. These were: 1) Critical deciding factors (time; cost; flexibility); 2) Perceived limitations and drawbacks (yoga can become "just another commitment"; individual-focused interventions divert from organisational issues; "extra-curricular" activities can highlight inequalities between staff groups); 3) Facilitators and motivators (wellbeing-related benefits; potential integration into role); 4) Barriers (lack of knowledge or capability; limited appeal; theoretical benefit versus practical barriers),

**Conclusions:** This analysis suggests there are key practical barriers and facilitators to the use of yoga as a HCW wellbeing activity which must be considered when designing and utilising such interventions in practice and gives unique insight into how yoga is perceived amongst UK HCWs. Responses will be further analysed quantitatively and used to inform the design of an upcoming study exploring the feasibility and impact of a 6-week yoga intervention to support the physical and mental wellbeing of NHS professionals.

## Oral 3: Feasibility and pilot studies of interventions

**15.10- 16.10**

### 3.1 Wearable Technology for Promoting Physical Activity in Middle-Aged Adults with Chronic Musculoskeletal Pain.

**Kereaseen Oluwatobiloba Eboime University of West London, London; Royal London Hospital for Integrated Medicine; Dr Jin Luo, University of West London, London.; Dr. John Hughes, University of West London, London.; Royal London Hospital for Integrated Medicine, London.; Professor Raymond Lee, University of Portsmouth, Portsmouth.**

## **Presenting: Kereaseen Oluwatobiloba Eboeime**

### **BACKGROUND**

Musculoskeletal chronic pain becomes evident and noticeable around middle age, which negatively transforms their physiological function (Babatunde et al., 2017). Middle-aged adults with chronic musculoskeletal pain are often physically inactive. This inactivity is linked with constant pain, tiredness, and disability. The National Institute for Health and Care Excellence (NICE) guidelines recommend group or individual-based physical activity for musculoskeletal patients with chronic pain. Wearable technology has been used as an intervention to motivate middle-aged adults to increase physical activity (PA), but its application to musculoskeletal chronic pain patients needs more investigation. The main aim of this feasibility study is to examine the acceptability, feasibility, and effectiveness of using wearable devices to promote lifestyle physical activity while reducing musculoskeletal chronic pain in middle-aged adults.

### **OBJECTIVES**

The purpose of this study is to evaluate the acceptability of all aspects of the randomised control trial (RCT) of wearable devices as an intervention to increase PA in middle-aged adults with musculoskeletal chronic pain. In testing for the objectives, the following areas of the feasibility study were considered: recruitment and retention strategies for clinics and participants, the use of outcome measures, and intervention acceptability.

### **METHOD**

This study is using a mixed-method randomised feasibility trial. Recruitment of participants is ongoing from the Royal London Hospital for Integrated Medicine/University College of London Hospital (RLHIM/UCLH) National Health Service Trust (NHS) Outpatient Pain Clinic and randomised on a ratio of 1:3 into a control group (standard care) and an intervention group (standard care combined with a wearable device). The feasibility study will last for 18 months, and participant involvement will last for 24 weeks. Participants in both groups can participate in any physical activity, including planned, structured, and repetitive bodily movement exercises or occupational and recreational PA. A qualitative semi-structured interview will be conducted at baseline, week 12, and week 24, while outcome measures will be conducted at baseline, 4-week, 8-week, 12-week, and 24-week for all participants to examine their pain, physical activity, and responses to the trial. A qualitative interview will be conducted for stakeholders, which include clinicians and service managers, after all participant data collection has been completed.

### **FINDINGS**

Currently, 11 participants have consented, of which 3 have completed the 24-week intervention. Findings revealed that the metabolic equivalent of task (MET) minutes per week increased when comparing baseline rates to the end timepoint between the IG and CG. The findings showed fluctuations in pain outcomes and a slight improvement in psychological conditions between both groups. Finally, participants found the wearable device acceptable, user-friendly, and effective."

## **3.2 Understanding how online Solution-focused hypnotherapy can support the wellbeing of police personnel and treat symptoms of anxiety and depression**

Dr Emily Barney, Independent Clinical Psychologist, Kidderminster, UK; Dr Emma Treby, Inspired to Change Ltd; Kerry Seymour, Inspired to Change Ltd; Gary Johannes, Inspired to Change Ltd

Presenting: Emma Treby

Background: The mental health and wellbeing of police personnel has received increased attention over the last 5 years and rates of mental illness amongst employees are high. Anxiety and depression are the most common mental illnesses within the police force, yet little is known about how effective psychotherapeutic interventions are in treating the symptoms of these mental illnesses in police personnel, i.e. how many police personnel recover from anxiety and depression after completing a course of psychotherapy. In the psychotherapy outcome literature, recovery rates for anxiety and depression in clinical samples following treatment are low, between 37% and 47%, suggesting similar outcomes can be expected within the police force using current therapy models. Further research into new or unused interventions is therefore needed to improve recovery rates within the police force. Method: This pilot study explored how online Solution Focused Hypnotherapy (SFH), can support the wellbeing of police personnel and effectively treat symptoms of anxiety and depression. This research adopted a mixed method approach. Quantitative methods were used to measure changes in anxiety (GAD-7) and depression (PHQ-9) symptom severity at pre- and post-intervention and measure changes in wellness using a rating scale (Life Wellness Indicator Tool) at the end of each session. Qualitative techniques (interviews, open questionnaires and supervision observation) were used to gauge a more detailed understanding of the value of SFH, comparison with other therapy they might have received before, comfort with the therapeutic process, and impact on the participant's work and home life. Results: A total of 42 police personnel, both officers and staff, participated in the study and 20 qualified SFH therapists delivered the online intervention. The main finding was that 78% of police personnel who completed a course of SFH and started with clinically significant symptoms of anxiety and/or depression had recovered from their illness following the intervention (i.e. scored below 5 on at least one outcome measure). A total of 97.2% of participants achieved "wellness" after the intervention, compared to 19% at pre-intervention and no participants experienced an increase in symptom scores after completing the intervention. Conclusion: Online Solution Focused Hypnotherapy (SFH) can support the wellbeing of both police officers and staff and effectively treat the symptoms of anxiety and depression. Our findings suggest that SFH is an effective, well liked and safe intervention to use within the police force and provides support for more resources into a larger randomised controlled trial.

### **3.3 A feasibility trial of Self-Acupuncture for patients with Migraines (SAM) protocol** **Catrina Davy, University of West London; Prof Michael Loughlin, University of West London; Dr John Hughes, University of West London**

**Presenting: Catrina Davy**

Introduction and objective: There is a strong evidence base to support the treatment of migraines with acupuncture. In the United Kingdom, the National Institute for Health and Care Excellence (NICE) guidelines currently recommend a course of up to ten acupuncture sessions for the prophylactic treatment of migraines. They do not recommend ongoing or maintenance treatment. Teaching self-acupuncture (SA) is an option to help people manage migraines long-term.

The aim of this study is to evaluate the feasibility of teaching SA to people with migraines in an NHS hospital. The findings of this study will determine the methodology for a randomised controlled trial on the same topic.

Methods: A pragmatic, mixed-methods, randomized, parallel-group exploratory study will be conducted. The study will compare SA plus standard care (n=40) versus standard care alone (n=20).

Participants will complete outcome measures at baseline and 12 and 24 weeks after the start of the intervention. Outcome measures will consist of the Headache Impact Test (HIT-6); Migraine Disability Assessment (MIDAS); Migraine-Specific Quality of Life Questionnaire (MSQ v2.1); and Pain Catastrophising Scale. Participants will also be asked to complete a migraine diary for 4 weeks before they start the study and for the last 4 weeks (week 20-24). Participants will be interviewed at 12 weeks after the start of the intervention. Participants allocated to standard care will be offered training in SA once the trial is complete.

**Results:** Descriptive statistics and graphical representations of quantitative data will be used to examine recruitment and retention rates. The mean difference between the SA plus standard care and standard care alone will be calculated for each outcome measure at each time point. A power calculation will be conducted to determine the sample size required for a phase 3 definitive trial. Transcripts of qualitative interviews will be analysed thematically using Framework methodology.

**Conclusions:** If SA is shown to be safe and effective, it is anticipated that the intervention would be routinely delivered within the NHS. Thus, providing pain relief to a large number of people who have migraines saving the NHS large amounts of money.

### 3.4 Supporting women after pregnancy termination for medical reasons: a pilot randomised controlled trial of a Sophrology wellbeing intervention

**Prof Caroline Lafarge: University of West London; Andreea Marin: University of West London; Liz Murphy: The International Sophrology Federation and The Sophrology Academy**

**Presenting: Caroline Lafarge**

#### Background

Termination of pregnancy for medical reasons (TFMR) can have negative psychological consequences. Research points to unmet needs for psychological support post-TFMR, and evidence of effective interventions is sparse. Sophrology is a low-intensity intervention widely used in Europe. Combining Western relaxation techniques and psychological principles with Eastern meditation practices, it uses simple exercises that can be used in everyday life: relaxation, breathing, gentle movements and visualisations.

#### Aims and objectives

The study assessed whether a Sophrology intervention could benefit women post-TFMR, and whether delivering such intervention would be feasible.

#### Methods

We conducted a pilot randomised controlled trial (RCT) comparing an 8-week Sophrology intervention group (G1) with a waitlist/control group (G2). Women were recruited from Antenatal Results and Choices. To participate, they had to be over 18 and have undergone TFMR 3-18 months prior. The intervention was delivered online by an experienced sophrologist. Data were collected at baseline, after G1 intervention, and after G2 intervention. Measures included: anxiety (GAD-7), depression (PHQ-9), wellbeing (WEWBS), resilience (CD-RISK10), and perceived social support. Women were also asked intervention-related questions and five follow-up interviews were conducted.

#### Results

Trends indicate lower anxiety and depression levels and higher wellbeing scores post-intervention (G1) although the sample size is too small to detect significant changes. G1 women rated "feeling good about myself" significantly higher after the intervention. Qualitative data revealed some intervention benefits including acquiring new tools/coping strategies to regulate emotions, general self-development, improved mind-body alignment, and sense of belonging. The intervention's online and group format was well-received. Negatives included the early start time (6pm) and processing difficult emotions which could be challenging, although considered necessary.

#### Conclusions

This pilot study indicates that women who engaged the most with the intervention benefited the most from it. A larger RCT is needed to ascertain whether Sophrology can positively contribute to women's wellbeing post-TFMR.

## P1 Being Treated in an Open Setting Reminds Us That We All Have Problems: Experiences and Self-Reported Clinical Outcomes of Service-Users in a Multi-Bed Acupuncture Teaching Clinic

**Thomas Lewis of the University of Leeds completed this service evaluation in the Northern College of Acupuncture's multibed teaching clinic with supervision from myself and Karen Charlesworth of NCA**

**Presenting: Lara McClure**

Background:

Acupuncture effectively treats a range of conditions, including chronic pain, without the detrimental side-effects of some medications [1]. NICE views acupuncture as an intermediately cost-effective treatment for chronic pain [2]. Multi-bed delivery models for acupuncture have been shown to deliver cost savings [3]. A novel multi-bed service has been implemented by the Northern College of Acupuncture (NCA) in York, UK, alongside its traditional teaching clinic. This provision allows multiple service-users to receive treatments simultaneously in the same room by the same clinician at a lower cost. Previous quantitative and qualitative studies into multi-bed acupuncture have shown that patients find the model beneficial for their symptoms and a positive experience [4,5]. This study takes a patient-focussed, mixed-methods approach to exploring the impact of the NCA's Multi-bed acupuncture teaching clinic (MBATC) on service-users and their self-reported clinical outcomes. This study was undertaken as part of final year MBChB studies at the University of Leeds, supported by the NCA. Findings have already been presented at the ACMAC conference in 2022 and the ARRC Symposium in 2023.

Aim/Objectives: This study's aim was to evaluate the impact of the NCA's MBATC on service-users. This Aim was met by:

- Asking past and current service users about their experiences and satisfaction with the MBATC
- Analysing responses using a mixed-methods approach
- Synthesising the resultant quantitative and qualitative data to provide richer insight into service-users' experience

Methods:

This Service Evaluation was conducted using a questionnaire containing a mixture of question styles including agreement statements, Likert scales and a free-text response. Participants were asked about their experiences in the MBATC, their reasons for choosing a multi-bed clinic and their perception of the outcomes of their treatment. Current service-users filled in a paper questionnaire and past service-users completed it online. Quantitative data was analysed using STATA software and simple descriptive statistical methods. Qualitative data was thematically analysed and verbatim quotes from participants used to illustrate and enrich the quantitative data [6]. Synthesis addressed themes relating to patient satisfaction, patient-reported outcomes, and perceived areas for change.

Results:

The main reason for service-users to choose the MBATC was low cost, with 72% of participants stating this was the most important factor in their decision to use the service and 91% indicating that the lower cost made the service more accessible to them. 86.1% of participants reported that their acupuncture treatment had been beneficial for their symptoms and many indicated that sharing clinicians did not have a detrimental effect on their care. Despite some concerns regarding privacy, 94% of patients were satisfied with the level of privacy available at the MBATC.

Selected verbatim quotations from pseudonymised participants and selected graphical representations of some of the study's findings appear in the Discussion section of this poster.

Conclusion:

This Service Evaluation found that multi-bed acupuncture is seen as both an accessible and cost-effective form of treatment, while still providing a safe, hygienic and effective service to service-users. This has implications for individuals wanting to undergo acupuncture treatments and for national guidelines, which currently see acupuncture as an intermediately cost-effective method of care delivery.

## P2 Pilot research study to investigate the efficacy of a specific reflexology sequence for chemotherapy induced peripheral neuropathy pain in cancer survivors.

**Dr Carol Ann Samuel, University of Portsmouth**

**Presenting: Dr Carol Samuel**

Background: Reflexology is defined as a manual technique used to stimulate nerve endings, mainly on the feet, said to correspond to various organs, glands, tissues, and body parts within parallel zones. It can be performed anywhere, requires no special equipment, is non-invasive and offers the recipient the psychological benefits attached to human touch and responsiveness.

Pain is an aggravating factor associated with cancer and its treatments, invoking fear and anxiety in cancer patients that rank as one of the highest concerns both physically and emotionally.

Chemotherapy Induced Peripheral Neuropathy (CIPN) is one of many side-effects associated with the aggressive chemical drugs used in cancer treatment. Of neuropathic origin it is one of the most difficult of all pain conditions to treat effectively. The probability of CIPN is dependent on the type of drug used, the treatment duration and any pre-existing history of nerve damage. Up to 30% of cancer survivors report CIPN symptoms at least six months post treatment, whilst 47% may still experience symptoms on average, six years after the end of treatment.

The pathology of CIPN is not yet fully understood but the main involvement is thought to develop from within the dorsal root ganglia (DRG) and the axons. The sensory neurons of the DRG lack a blood-nerve barrier making them more susceptible to damage from neurotoxic drugs. Pain from CIPN can be extremely debilitating and treating it effectively is a growing unmet need in cancer survivors, with sequelae that are difficult to manage and with limited pharmacological efficacy.

Objectives: The aim of this study was to evaluate whether a specific reflexology protocol would influence subjective pain scores in individuals diagnosed with chemotherapy induced peripheral neuropathy (CIPN).

Methods: Eight clients previously diagnosed with CIPN attended five practitioners in private clinics, hospices, or hospital outpatient units across the United Kingdom. They were each subjected to the CIPN reflexology protocol as devised by the author for three consecutive weeks. Their subjective pain

scores were obtained in week 1 (control) and in weeks 2 and 3. Personal statements of effect of treatment were also obtained in clients handwritten testimonials following the final session.

Results: The data indicated reductions in subjective pain scores.

Conclusions: The outcomes of this pilot study indicate that reflexology should be investigated further for patients experiencing pain from chemotherapy induced peripheral neuropathy.

### **P3 THE STATE OF THE EVIDENCE ON THE EFFECTIVENESS AND THE SUBJECTIVE PATIENT EXPERIENCE OF LESSERIAN CURATIVE HYPNOTHERAPY, COGNITIVE BEHAVIOURAL THERAPY AND MEDICATION IN TREATING ANXIETY DISORDERS AND POST-TRAUMATIC STRESS DISORDER**

**Aile Trumm, University of Brighton; Dr. Laetitia Zeeman, University of Brighton; Dr. Catherine Aicken, University of Brighton**

**Presenting: Aile Trumm**

Anxiety disorders are one of the leading causes of disease burden worldwide (Konnopka & Kanig, 2020). Anxiety disorders, already a public health concern even before the pandemic due to their prevalence and rate of increase over the recent decades, appear to be worsening, both in prevalence and severity (Courtney, 2020; Vigo et al., 2020). As it is evident that anxiety disorders and PTSD are prevalent and costly issues, the NHS recommends pharmacotherapy (medication) or cognitive behavioural therapy (CBT) as there are abundant studies and research surrounding these treatment modalities.

Trauma-focused cognitive behaviour therapy is effective in treating posttraumatic stress disorder but non-response rates range between 25% and 50% (Brady et al., 2015).

In a systematic review of CBT for anxiety disorders (including 87 clinical trials and 208 response rates) by (Loerinc et al., 2015), the average response rate to treatment was 49.5%. In other words, about half of the patients did not respond or deteriorated (Oasi et al., 2019).

In summary, there needs to be an investigation into further resources and further options for patients who are not interested or have not benefited sufficiently from CBT-based or pharmacotherapy. For example, the only option offered for social anxiety disorder in IAPT is CBT (NHS England, 2023). It is assumed that due to the extensive research in CBT and even more extensive resources for pharmacotherapy, they are the best treatment options for anxiety disorders and PTSD, but it is vital to explore how patients feel about the treatments and the real-life outcomes that matter to them. Hypnotherapy research, especially curative hypnotherapy research has taken a hiatus in the last 20 years and also there are various research gaps in hypnotherapy in mental health (Trumm, 2018).

Therefore, there is also a need to close the research gap in hypnotherapy research and create more evidence-based research in curative hypnotherapy which this PhD research project aims to do with mixed methods methodology. The studies were planned to follow an exploratory sequential design and were conducted in three phases: phase 1: qualitative focus group discussions with healthcare professionals: curative hypnotherapists, CBT therapists and psychiatrists who prescribe medication. These focus groups informed the second step of quantitative analysis in terms of outcome measures utilised for the effectiveness of each therapy, obstacles and possible attrition reasons from each therapy and subsequent statistical comparison in the effectiveness of each therapy. The third phase was qualitative interviews with patients/service users in each treatment arm to explore their



subjective experience of therapy. The qualitative interview topic guides were influenced by previous qualitative and quantitative stages.

#### **P4 A case study into a Sophrology intervention to promote wellbeing among individuals in recovery from alcohol use disorder.**

**Maria Romero Rosado, (University of West London); Lucile Diebler, (The Sophrology Academy); Dr Luisa Perrino, (University of West London); Prof Caroline Lafarge, (University of West London)**

**Presenting: Maria Romero**

##### **Background**

Alcohol use disorder (AUD) represents a significant health concern globally with a link between mental health deterioration and increased alcohol intake. Post-sobriety, individuals often lack mental health support, increasing the risk of relapse. Improving the wellbeing of those in alcohol recovery could reduce the likelihood of relapse, prevent health related concerns and reduce healthcare costs.

##### **Aims**

This study proposed the use of an intervention named Sophrology to improve the wellbeing of individuals in alcohol recovery. Sophrology is a mind-body relaxation technique which combines gentle movements, positive visualisations and breathing exercises. A before and after mixed methods case study was employed to investigate the effect of a six-week Sophrology intervention on the wellbeing of individuals in alcohol recovery. Wellbeing was measured through the General Anxiety (GAD-7) Depression (PHQ-9) and Satisfaction with Life (SWL) scales. The Substance Use Recovery Evaluator (SURE) was also used to measure alcohol recovery. Semi-structured interviews were conducted to gain a deeper understanding of the participants' experience of the intervention, and data were analysed using Thematic Analysis.

##### **Results**

Following the six-week Sophrology sessions, participants reported a significant reduction in symptoms of both anxiety and depression, along with an improvement in their satisfaction with life (SWL). The qualitative data analysis revealed four main themes: participants emphasised the mental and physical advantages gained from practising Sophrology, valued the group setting for the social support it provided, and appreciated the Sophrology techniques as beneficial alternative coping strategies. Additionally, participants shared their expectations prior the intervention which were related to gaining new skills to manage stress and work through trauma. Feedback was also provided and formed the fourth theme; participants commended the simplicity and holistic nature of Sophrology.

##### **Conclusion**

The results from this study suggest the effectiveness of Sophrology as an impactful intervention to enhance the wellbeing of individuals in alcohol recovery and reduce symptoms of anxiety and depression. Future research should employ longitudinal methods to assert the enduring effectiveness of the intervention.

#### **P5 Does Facial Cosmetic Acupuncture Improve the Appearance of Wrinkles? A Narrative Review of the Literature**

**Dr John Livesey Northern College of Acupuncture**

**Presenting: John Livesey**

Driven by rising demand for non-surgical cosmetic treatments, facial cosmetic acupuncture (FCA) is growing in popularity and becoming an integral part of the offering of many acupuncture practices. Concern about facial wrinkles is the most frequent reason for patients seeking cosmetic facial treatment, but there is little clinical research to demonstrate FCA's effectiveness.

This study presents a narrative literature review evaluating the evidence of facial cosmetic acupuncture's effectiveness in treating wrinkles, and exploring opportunities for further clinical research.

The selected studies include professional opinion pieces and quasi-experimental studies (prospective, single-arm, non-randomised and uncontrolled). No RCTs were identified.

Whilst logically rooted in Chinese medical theory, professional opinion, treatment protocols and statements about FCA's effectiveness are not evidence based.

The extant clinical research is of poor quality due to small sample sizes, varied treatment protocols, subjective outcome measurements, and the lack of controlled study designs. Despite the poor quality of available clinical research, all the experimental studies identified conclude FCA reduces the appearance of lines and wrinkles. This suggests larger, controlled studies with objective outcomes measurements are worth pursuing. Further research is recommended, including: 1) High-quality case studies or case series; and 2) Randomised Controlled Trials with large sample sizes, objective outcome measurements and clearly defined, repeatable treatment protocols.

## [P6 Acupuncture or nutritional therapy for atrial fibrillation: a mixed methods case series study](#)

**Dr Karen Charlesworth, University of York and Northern College of Acupuncture; Dr Alison Longridge, York Clinic for Integrated Healthcare; Ms Amanda Preston, York Clinic for Integrated Healthcare; Ms Cheng Hao Zhou, Northern College of Acupuncture; Ms Caroline Hind, Northern College of Acupuncture; Ms Clarissa Nolan, Northern College of Acupuncture; Ms Elena Holmes, Northern College of Acupuncture**

**Presenting: Karen Charlesworth**

**Background:** Atrial fibrillation (AF) is the most common cardiac arrhythmia, associated with increased risk of stroke, debilitating symptoms and a decrease in health-related quality of life. Current treatments for atrial fibrillation may not provide symptomatic relief, and are associated with risks and adverse responses. In addition, the condition is complex, often presenting with multiple comorbidities that may exacerbate and be exacerbated by the AF. A holistic approach may be appropriate to improve symptoms and quality of life.

**Study aim:** To explore treatment strategies and outcomes for participants receiving either acupuncture or nutritional therapy for symptoms and quality of life in atrial fibrillation.

**Methods:** Two individualised holistic therapies, acupuncture and nutritional therapy, were delivered to participants in a small pragmatic randomised controlled trial (ISRCTN 13671984) whose overall aim was to test feasibility for a future large-scale trial. Three participants from each group (total n=6) were selected for a case series study. Symptoms were recorded using a symptom diary and a 7-day ambulatory ECG monitor; quality of life was measured by the Atrial Fibrillation Effect on Quality of life questionnaire (AFEQT) and EQ-5D. All measures were applied at baseline and at a three-month follow-up period. Data was analysed using descriptive statistics and reflexive thematic analysis, and synthesised using joint display tables.

Results: Treatment strategies for acupuncture participants focused on calming the Shen, regulating Heart qi and smoothing Liver qi; treatment strategies for nutritional therapy participants focused on weight loss, regulating blood glucose and behavioural approaches to eating. Participants reported a range of largely positive perceived effects on AF symptoms, quality of life, and other comorbidities including blood pressure, irritable bowel syndrome, sleep, energy and general health and wellbeing. Positive perceptions of treatment effects were not reflected in the ECG monitor readings.

Conclusion: Self-reported outcome measures showed improvement in symptoms and quality of life for six people with atrial fibrillation, together with a range of individually meaningful effects reported qualitatively.

## P7 Evaluating the impact of a 14-day food programme on emerging adults (18-24 year-old) University students on subjective health measures (emotion, sleep and energy) food literacy and culinary aptitude.

Jessica Chambers <sup>1</sup> Miranda Harris MSc <sup>1,2</sup>

**1 School of Allied Health and Community, University of Worcester, UK.**

**2 Corresponding author: Miranda Harris, Senior Lecturer, MSc, SFHEA, BANT, CNHC**

**Presenting: Miranda Harris**

Background:

Many emerging adults begin to develop their autonomy and independence while attending higher education and this includes food procurement and preparation skills. Research demonstrates university students lack culinary skills and food literacy before leaving home, often leading to poor dietary habits at university, which can affect their health and well-being.

Aim:

The aim of this study were to evaluate the impact of a 14-day culinary programme on subjective health measures of sleep, emotions and energy, and on food literacy and culinary aptitude, and to assess the relationships between changes in these measures and compliance to the programme.

Methods:

Five participants aged between 18-24 completed the online, 14-day programme, during which details on subjective health, culinary aptitude and food literacy were collected. Modified Likert-scale questionnaires based on validated surveys were used and accessed through JISC online. Data gathered from pre- and post-surveys was analysed with SPSS using non-parametric tests.

Results:

Subjective health measures found a statistically significant improvement in sleep scores ( $z = 2.06$ ,  $n = 10$ ,  $p < .05$ ) with a large effect size ( $r = .65$ ) but non-significant results for the combined energy and emotions scales. Median scores for combined energy and emotions decreased from pre- to post-programme but subscale analysis showed a non-significant increase in energy. Culinary skills and food literacy scores improved over the programme with medium effect sizes but were non-significant. No statistically significant relationships were reported for any variables, but strong positive relationships were seen between compliance and food literacy ( $r = .5$ ), sleep ( $r = .67$ ), and combined energy and emotions ( $r = .6$ ).

Conclusion:

A 14-day online cookery programme providing recipes and culinary education may have a positive impact on sleep and energy, as well as improve food literacy and cooking skills. Further research with a larger sample size, over a longer period, using a blended in-class and at-home course method could strengthen study findings and provide a more robust analysis

## **P8 Nutritional interventions for long-COVID: a systematic quantitative literature review**

**Jennefer D'Aubyn (Northern College of Acupuncture), Kim Adams (Northern College of Acupuncture) and Karen Charlesworth (Northern College of Acupuncture)**

**Presenting: Jennefer D'Aubyn**

Background: New treatments are needed for the long-COVID (coronavirus disease 2019) "pandemic tail". Nutritional interventions may be helpful, but recommendations are based on expert opinion not empirical evidence. A 2022 scoping review found five studies implementing nutritional interventions for long-COVID. Frequent surveillance is appropriate for this new and high-incidence topic. Quantitative mapping can guide research and coordination to benefit long-COVID patients. Aim: To identify and quantitatively summarise what nutritional interventions have been investigated for long-COVID. Methodology: A systematic quantitative literature review searched for primary clinical studies implementing nutritional interventions for persisting symptoms post-COVID in 7 databases: PubMed, Embase, CINAHL, AMED, CENTRAL, Nutrition Evidence and the Living Map of Long-COVID. Interventions were quantitatively summarised. Findings: Forty-three studies were selected from 963 records. Supplements were more often implemented than diet interventions. Diet and supplement interventions favoured protein. Vitamins C, D, B6, and B1, and minerals magnesium, zinc, and selenium remained the most-often supplemented micronutrients. Further to these, 17 multi-component supplements, 12 vitamins, 13 minerals, 9 compounds, 8 plant extracts, 4 phenols, 6 pro- and 8 pre-biotics, and 8 enzymes were identified. Conclusion: Evidence of nutritional interventions for long-COVID has broadened more than it has deepened. The findings contribute to priorities to identify long-COVID candidate non-pharmaceutical interventions. Intervention clusters indicate suitability for scoping reviews with quality analysis to extend findings. Greater research coordination may contribute to evidence depth over increasing breadth. An annual update review could track and guide knowledge advancement to benefit long-COVID patients and their clinicians.

## **P9 Feasibility study: Effect of virgin coconut oil in older adults diagnosed with mild to moderate dementia.**

**Kirti Paik-Inkar, MSc<sup>1</sup>, Amalia Tsiami, PhD<sup>1</sup>, Snorri Rafnsson, PhD<sup>2</sup>, John Hughes, PhD<sup>3</sup> <sup>1</sup>London Geller College of Hospitality and Tourism, University of West London, UK; <sup>2</sup>Geller Institute of Ageing and Memory, University of London, UK; <sup>3</sup>School of Biomedical Sciences, University of West London, and Royal London Hospital for Integrated Medicine, UCLH NHS Trust, UK.**

**Presenting: Kirti Paik-Inkar**

Introduction: At present, there are more than 55 million individuals living with dementia (ILWD) worldwide, and this figure is expected to reach 139 million by 2050. This is a clinical and significant financial challenge for public health. There are no treatments available that will help to relieve the symptoms, cure or control the progression of dementia; however, there are various other treatments available. The feasibility trial will evaluate all aspects of the research process and inform the design of a fully powered pragmatic randomised controlled multi-centre clinical trial of VCO for dementia.

**Methods:** This study is a pragmatic randomised pilot mixed methods feasibility study that compares standard care with standard care plus VCO. It will thoroughly investigate all aspects of feasibility for a potential definitive randomised controlled clinical trial of VCO for dementia. The study will examine processes, resources, interventions, procedures, and outcomes. It will also gather preliminary data on the size of any effect and explore the views of the participants about the study design. For those assigned to the VCO intervention, their views on the intervention will also be sought. Qualitative telephone interviews will be conducted with patients and stakeholders until saturation. Quantitative outcome measures will assess overall cognition, quality of life, dietary intake, ketone body concentration, verbal memory, verbal fluency, processing speed, attention, and visual-spatial memory.

**Results:** The findings of the study will help to determine the feasibility and the related practicability of utilising VCO in ILWD. This will provide the evidence to develop a larger phase III trial, systematically evaluate the data and develop an intervention that may possibly enhance cognition and improve or maintain the quality of life for longer by delaying the development of dementia.

**Conclusion:** To assist the ILWD in understanding self-care/ management options and support them in making an informed decision about their care. Furthermore, self-management interventions could benefit the economy by lowering the national financial burden by reducing hospitalisations and improving overall well-being, which will promote independent living for as long as possible.

**Keywords:** Virgin Coconut Oil, medium-chain fatty acids, Alzheimers, dementia, MCI

## **P11 Mushrooms, Gut Microbiota and Cancer: a scoping review with qualitative synthesis**

**Presenting: Kirsten Chick (Northern College of Acupuncture)**

### **Abstract**

#### **Background**

Cancer is a leading cause of death worldwide, and the use of mushrooms and mushroom extracts is popular within integrative oncology. In exploring mechanisms for their action, attention has turned to the role of mushroom-driven changes to gut microbiota, and the subsequent influence on cancer-related immunological processes.

#### **Aim**

The aim of this paper is to map and synthesise the evidence that examines the role of gut microbiota when investigating the potential impact of mushrooms on cancer-related immunological processes.

#### **Methodology**

PubMed, the Cochrane Library and the Allied and Complementary Medicine Database were searched using the primary search terms Cancer, Microbiota and MushroomS. Relevant data from texts matching this review's inclusion criteria were tabulated. Studies were critically appraised and qualitatively analysed.

#### **Findings**

139 studies were screened and 23 identified (20 murine, 1 in vitro, 1 in silico, and 1 cross-sectional). The most frequent mushroom and cancer studied were Ganoderma lucidum and colorectal cancer,

respectively. 85% of murine studies found significant evidence of tumour reduction, and 22 studies reported gut microbiota changes with mushroom treatment. Eight studies found significant changes to gut microbiota diversity, five reported significant changes to the Firmicutes/Bacteroidetes (F/B) ratio, and seven identified changes to cancer-related pathways in gene enrichment analysis. Six studies found significantly increased short chain fatty acids (SCFAs) produced by gut microbiota, and this may play a key cancer-preventative role.

### Conclusion

In mice, mushrooms resulted in favourable changes to tumour measurements, and to SCFA activity. Inconsistent changes to gut microbiota diversity and F/B ratio were found, and the complexity of the gut microbiome makes this difficult to interpret. Results from murine studies are difficult to extrapolate to humans, and human studies are lacking. In silico research may prove invaluable as technologies progress, and it is suggested that cancer clinical trials using mushrooms consider taking stool samples to analyse for gut microbiota and SCFAs. The findings of this review are insufficient to inform any kind of treatment protocol, and further research is recommended.

Keywords: cancer, integrative oncology, nutrition, mushrooms, gut microbiota, short chain fatty acids.