sequenced using RNA-seq, aligned to human genome using STAR alignment and analysed for differential expression using DeSeq2 followed by pathway analysis.

Results. We have successfully isolated ribosome-associated RNA transcripts in the dendritic spines from cortical neurons of postmortem Alzheimer's brains with little interference from glial and non-neuronal material. The novel AD translatome disruptions identified by isolating endogenous ribosome bound mRNA will help detect downstream molecular targets. We will also integrate targeted translatome data with published transcriptome and GWAS DNA variant data to identify novel biomarkers.

Conclusion. This is the first successful isolation of the dendritic translatome from human postmortem AD brains. Future studies will verify functional significance of key targets using gain- and loss-of-function studies in animal models of AD and human iPSCs.

Stakeholders' Experience of Postpartum Psychosis Recovery in UK Mother and Baby Units: A Systematic Review and Conceptual Framework

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Aims.

- Identify themes in experience of Postpartum Psychosis (PP) recovery in Mother and Baby Units (MBUs) from the perspective of mothers, partners and MBU professionals.
- Develop a Conceptual Framework of recovery from PP in the MBU setting.

Methods. Systematic review using published and unpublished literature identified through database searches and grey literature sources. A narrative synthesis approach was taken and used to form a Conceptual Framework of recovery from PP in the MBU setting.

Results. Four databases were searched, yielding 8 includable studies. A further 3 grey literature sources met the inclusion criteria. Most of the sources focussed on the womens' experience of recovery.

Stakeholders experienced MBUs as providing a positive therapeutic milieu for recovery. The broad themes identified for improvement encompassed: knowledge of PP, accessibility of services and discharge practises.

Conclusion. This review provides valuable insights into the experience of recovery from PP within UK MBUs from the perspectives of multiple stakeholders. Areas for improvement identified include antenatal education on PP, knowledge of PP amongst non-specialist healthcare professionals, partner involvement in care, and discharge processes.

The outcomes of this review have the potential to shape the design, implementation, and expansion of MBUs and their practices both nationally and internationally.

What Are the Psychological and Behavioural Outcomes of Vagal Nerve Stimulation and Ketogenic Diet in Children and Young People With Drug-Resistant Epilepsy?

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Aims. To systematically review current quantitative evidence for psychological and behavioural outcomes for children with drug-resistant epilepsy being treated with either the ketogenic diet (KD) or vagal nerve stimulation (VNS).

Methods. The review was conducted with a systematic review methodology and the Preferred Reporting Items for Systematic Reviews (PRISMA) tool. The methodology was developed by the author using the PICOS (population, intervention, comparison, outcome, study, design) framework.

Eligibility criteria included children up to 18 years old with epilepsy treated with KD or VNS, and studies which assessed psychological and behavioural outcomes, with validated tools, before and after treatment. Any quantitative design was included. Review articles, meta-analyses, case studies, and case series without a reported mean were excluded. Searches were conducted in four main databases (GlobalHealth, Medline, PsychInfo, Embase) and two grey literature databases (Scopus, Web of Science).

Duplicates were screened using automated processes and then manually. Titles and abstracts were reviewed against eligibility criteria, followed by full texts. Risk of bias was assessed using tools appropriate for the study (the Risk of Bias-2 tool for randomised controlled trials, the JBI checklist for quasi-experimental studies, and the JBI checklist for case series). Included articles were grouped by intervention and by study design for data extraction.

Results. 22 studies were identified: 11 for KD, comprising of two randomised controlled trials, one retrospective quasi-experimental study, one retrospective study, two prospective studies, one cross-sectional survey, and four case series; and 11 for VNS, comprising of one randomised controlled trial, two longitudinal observational studies, one prospective observational study, one retrospective study, and six case series.

These studies included a total of 655 participants (523 KD, 132 VNS). There was weak evidence for an improvement in cognitive and behavioural outcomes with both KD and VNS although most studies had methodological weaknesses and were at risk of bias. For both interventions, some studies showed that improvements in outcomes were not related to improvement in seizures, or to reduction in medications.

Conclusion. The evidence base for cognitive and behavioural outcomes following KD or VNS treatment is limited and studies are generally weak and underpowered. Psychological measures used across studies are heterogeneous and difficult to compare. There are little data, but studies raise the possibility that both VNS and KD may affect psychological and behavioural outcomes independently of their effect on seizures. This review supports the need for further research into this area with larger, methodologically robust studies.

Substance Use Among Female Sex Workers in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis

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Aims. This systematic review aimed to quantify the prevalence of substance use among female sex workers (FSWs) in low- and middle-income countries (LMICs).

Methods. Design: The review protocol was registered with PROSPERO (CRD42021242048). We searched Ovid, PubMed and Web of Science databases for peer-reviewed, quantitative studies from inception to 6th March 2023. Study designs included: cross-sectional, case–control, cohort study, case series analysis, or experimental studies. Study quality was assessed using the Centre for Evidence-Based Management (CEBM) Critical Appraisal Tool.

Setting: FSWs in LMICs.

Participants/Inclusion criteria: any measure of prevalence or incidence of substance use (not alcohol or tobacco) among FSWs aged 18+ years.

Measurements: A narrative synthesis was conducted across all studies meeting the inclusion criteria. Pooled prevalence estimates for 'ever' and 'recent' drug use were calculated using a random effects model.

Results. 3135 papers were identified; 161 papers reporting on 102 studies with 167,333 FSWs from 39 LMICs met the inclusion criteria. 26 studies scored high, 61 scored moderate, and 15 scored in the lower quality range. Only 4/102 studies used a validated measurement tool to assess levels of substance use dependence. The mean age of study participants was 28.9 years (SD 7.7). The pooled prevalence for recent (past month to past year) substance use among FSWs in LMICs is: illicit drug use 29% (95% CI: 14–34%), cannabis 20% (95% CI: 8–30%), cocaine 21% (95% CI: 9–32%), amphetamine type stimulants 19% (95% CI: 12–26%), opioids 8% (95% CI: 4–12%), sedatives and sleeping pills 6% (95% CI: 0–12%), inhalants 4% (95% CI: −4–12%), hallucinogens 0% (95% CI: 0–0%), and recent drug use during sex work 42% (95% CI: 15%–68%). Only 5/102 studies reported a substance use intervention. Key study limitations include the lack of a validated measurement tool by most studies (96%) meaning it was not possible to distinguish between any drug use vs. harmful drug use. The criminalisation of drug use may have led to under-reporting and an underestimate of true substance use prevalences.

Conclusion. FSWs in LMICs report a high prevalence of recent drug use – including during sex work – with cannabis, cocaine and amphetamine type stimulants the most commonly used. There is an urgent need for effective low-cost substance use interventions. Future studies should use validated substance-use measurement tools to assess the burden of substance use disorders.

Systematic Review: Dementia Post-Diagnostic Support in UK Rural Communities: Experiences of People Living With Dementia, Informal Caregivers, and Healthcare Professionals

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Aims. The aim of this systematic review is to identify and describe the experiences, barriers and provision of post-diagnostic support in UK rural areas; from the perspective of people living with dementia, healthcare professionals and informal family caregivers.

Background.
People living with dementia in rural areas experience numerous barriers to accessing post-diagnostic support.

Methods.

Systematic Review.
Systematic searches will be conducted in the following databases; SCOPUS, PubMed, PsychINFO and CINAHL Plus. Systematic review tool Rayyan.ai will be used to screen titles and abstracts, prior to full-text review. Following data extraction, The Critical Appraisal Skills Programme (CASP) tool will be used to appraise the quality of studies and assess risk of bias. The data will be deductively analysed through the lens of the Candidacy Framework's 6 dimensions, with a secondary inductive analysis capturing any themes that fall outside of the framework.

Results. 242 papers have been screened by first and second reviewer. 15 papers included. Papers still being analysed for full review. Will be complete by March 2024.

Conclusion. This systematic review will help improve understanding of the rural barriers and experiences of post-diagnostic support, and allow researchers and stakeholders to develop and optimise specially tailored dementia interventions in line with the needs of people residing in UK rural communities.

First reviewer: Danielle Bilkey, Second Reviewer: Dr Ellena Businge, Supervisor: Dr Nicolas Farina.

An fMRI Based Study of the Neural Correlates of OCD Sub-Types

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Aims.

1. To study the neural correlates of OCD using functional MRI.
2. To compare the neural correlates of the pure washer dimension of OCD with other dimensions of OCD and healthy controls.