

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 post-mortem Alzheimer's brains with little interference from glial and non-neuronal material. The novel AD translome disruptions identified by isolating endogenous ribosome bound mRNA will help detect downstream molecular targets. We will also integrate targeted translome data with published transcriptome and GWAS DNA variant data to identify novel biomarkers.

Conclusion. This is the first successful isolation of the dendritic translome 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.

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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 Systematic review using published and unpublished literature identified through database searches and grey literature sources.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.

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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.

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