Ketogenic Diet and Bipolar Disorder

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Aims: To understand the influence of adjuvant ketogenic diet on behavioural dysregulation in individuals with bipolar disorder through a review of the available literature.
Methods: A systematic review was conducted across the databases of Medline Ovid, PubMed, PsycINFO, the Cochrane Library, and the University of Sheffield Star Plus library, following the PRISMA guidelines. Relevant articles were identified using Inclusion and Exclusion criteria. Critical appraisal tools (the Critical Appraisal Skills Programme (CASP) and the Joanna Briggs Institute (JBI)) were used to assess the quality of the selected publications.
Results: Twenty-two articles were identified as suitable for the review. Out of this, 10 were systematic reviews, and 6 were case reports. Eighteen publications have deduced that ketogenic diets aid in stabilising mood.
Conclusion: The review identified that ketogenic diets have the potential to reduce behavioural dysregulation in bipolar patients. The descriptive analysis suggests the need for additional clinical research, as the available studies were mainly uncontrolled and included a limited number of participants.

Abstracts were reviewed by the RCPsych Academic Faculty rather than by the standard *BJPsych Open* peer review process and should not be quoted as peer-reviewed by *BJPsych Open* in any subsequent publication.

Increased Engagement, Mixed Outcomes: A Systematic Review of Artificial Intelligence-Based Sleep Interventions for Neurological and Neuropsychiatric Disorders

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Aims: This systematic review aims to synthesize the current literature on Artificial Intelligence (AI)-based interventions for improving sleep outcomes in individuals with neuropsychiatric conditions, excluding those with a primary diagnosis of insomnia.
Methods: This paper is a systematic review conducted in accordance with the PRISMA 2020 guidelines, with two independent reviewers conducting all stages using a double-blind method and conflicts being resolved after each section. A comprehensive electronic search was performed across EMBASE, Medline and PubMed using MeSH terms for Artificial Intelligence, Sleep and Neurological/Neuropsychiatric Conditions. Studies included were English-language, peer-reviewed primary research published between 2022 and November 2025, focusing on AI-based interventions for sleep outcomes in individuals with neuropsychiatric conditions (excluding primary insomnia). Data extraction used the Joanna Briggs Institute (JBI) systematic review framework.
Results: Five studies met the inclusion criteria with wide variations in study type. Sample sizes ranged from 65 to 540 across studies conducted in the UK, USA and Australia. The interventions ranged from AI-based chatbots, mobile apps, wearable devices and social-lyassistive robots. Positive and statistically significant increases in participant engagement were observed, with two papers reporting interactive AI groups attending up to two additional sessions on average (b=1.65, $p<0.001$) and using the intervention up to 3.8 times longer ($p<0.01$) compared to the control group. However, overall sleep-related outcomes were mixed; the intention-to-treat analysis in the US randomised control trial (Paper 4) found no statistically significant difference, but post hoc analysis showed significant improvements in sleep quality in the high-device adherence subgroup. Conversely, a cluster randomised control trial (Paper 5) showed no evidence of improved sleep patterns but did note a significant reduction in daytime and night-time motor activity.
Conclusion: Positive and statistically significant increases in participant engagement were observed with the use of artificial intelligence interventions. However, the increased engagement did not result in statistically significant improvements in overall sleep outcomes. The effectiveness of AI interventions is limited by the lack of robust research and universally low sample sizes. Whilst AI interventions have shown to improve engagement, there is currently insufficient evidence to suggest AI interventions improve sleep outcomes in the population group studied.

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Primary Care Contact and Physical Health Monitoring in Severe Psychiatric Illness

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Aims: Severe psychiatric illness (SPI), defined as schizophrenia and related psychoses, bipolar disorder (BPAD), and depression with psychosis, is associated with a reduced life expectancy of 15–20 years, largely attributable to physical illness.

SPI, and the sometimes-compulsory treatments, are associated with adverse effects on physical health, while other illness features like impaired decision-making ability, abnormal mood, and negative symptoms can impair engagement with health services. Consequently, regular monitoring and proactive management of physical illnesses are especially important. For these reasons, General Practice (GP) patient registers and outreach were previously considered necessary; however, the Quality and Outcomes Framework (QOF), which paid GPs to perform these roles, was withdrawn in Scotland in 2016 and cut back in England in 2025.

Therefore, we undertook a service evaluation of physical health monitoring in CMHT SPI outpatients. A constituent survey of contact with primary care services is reported here.
Methods: CMHT keyworkers recorded BMI and asked their SPI outpatients when they last saw their GP and when physical health was last discussed in primary care.
Results: Schizophrenia (n=212): 41% obese; schizoaffective disorder (n=11): 70% obese; BPAD (n=23): 56% obese; depression with psychosis (n=6): 80% overweight or obese; and delusional disorder (n=2). Among SPI patients with BMI ≥30, 47.1% had not seen their GP in over a year; for BMI ≥35, the figure was 46.5%; and for BMI ≥40, 45%. Overall, 51%(n=134) SPI patients thought they had seen their GP in the previous year, and only 36% (n=94) reported discussing physical health with a primary care provider during that time.
Conclusion: 32% of Scottish adults are obese, and 92% report seeing their GP at least annually, with contact rates higher among those with limiting long-term conditions. This contrasts with our SPI