

settings. Failure to recognize excessive fluid intake can result in ineffective treatment, exacerbation of psychiatric symptoms, and in severe cases, coma or even death. The findings of this study have the potential to contribute to the creation of a training program for healthcare providers. Such a program would enable the development of improved care plans for patients who engage in excessive fluid consumption and are at risk of developing hyponatremia and water intoxication.

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## Identifying Effective Psychotherapies for Older Adults in an Inpatient Setting: A Narrative Review and Synthesis

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**Aims.** We sought to review the evidence available to answer the question: Which psychological therapies are effective in the treatment of depression in older adults in an inpatient setting?

**Methods.** An advanced literature search and systematic review was conducted using Web of Science and PubMed. A set of keywords were identified around depression, older age and the inpatient setting. These were combined with a wide range of keywords around psychological therapies.

Non-English language articles were translated using Google translate.

Articles were reviewed for the relevance to the study question by reviewing the title and abstract. Full text articles were retrieved for those felt to be relevant to the study question.

**Results.** Of 709 articles identified from both databases, 20 articles were retrieved for full text review. Five studies were identified that appeared to offer insight into the study question. These papers focused on interpersonal therapy, cognitive behavioural therapy, or behavioural group therapy.

Brand and Clingempeel (1992) investigated the incremental implementation of group behavioural therapy in a randomized control trial. The study did not show statistically significant differences between treatment groups, but clinical significance differences supported this intervention's efficacy.

A case study by Soller (1997) followed the journey of a 69-year-old man through inpatient CBT sessions over three and a half months. This was followed with outpatient follow up. There was improvement but this was primarily subjective reporting.

A randomized controlled trial by Snarski et al. (2011) looked at the efficacy of behavioural therapy. The authors' overall conclusion was that patients benefit from this intervention and that further investigations should be done to strengthen their findings further.

A pilot study by Cabanel et al. (2017) focused on determining the feasibility of a multi-professional adaptation of group behavioural therapy sessions. This paper provides a signal towards the effectiveness of multi-professional approach to treatment.

Bollmann et al. (2020) focused on the implementation of interpersonal skills groups. It showed good feasibility as well as good

patient adherence. Self-reported and observer-reported depression ratings saw improvement throughout the study.

**Conclusion.** Although the studies showed a signal towards improvement for a range of therapies, the evidence from these studies is not convincing.

There is a lack of high quality research in this area. More studies are needed to determine the most appropriate psychological therapy to use and how this might be adapted to the transient nature of the inpatient setting.

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## A Systematic Review of the Use of Portable Ultra-Low-Field Magnetic Resonance Imaging in Non-Acute Brain Imaging and Its Potential Use in Dementia Assessment

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**Aims.** The aims of this study were to evaluate the literature regarding the use of ultra-low-field magnetic resonance imaging (ULF-MRI) and its potential use in dementia diagnosis.

Access to neuroimaging causes bottlenecks in dementia diagnostic pathways and limits overall capacity; there is wide variation across the UK. At present, dementia diagnosis rates in the UK remain below 65% and significant improvements in efficiency and accessibility of assessment services are needed to meet growing demand.

Modern MRI scanners use high strength magnetic fields (typically 1.5–3T), are expensive to install and operate, and usually require patients to travel to a general hospital. ULF-MRI systems (typically < 0.1T) are portable, relatively inexpensive, and do not require specialist staff to operate. They do not require shielding and are powered via a standard electrical socket. The use of ULF-MRI has historically been limited by multiple factors including poor image quality. Advances in software and hardware now mean that there is realistic potential to use ULF-MRI across a range of clinical applications.

**Methods.** The study followed the PRISMA 2020 guidelines and was registered on PROSPERO. Five electronic databases were searched for studies related to ULF-MRI using pre-developed terms. Studies comparing high field and ULF-MRI neuroimaging in adults were included. Studies of acute presentations (e.g. traumatic brain injury or acute cerebrovascular accident) were excluded. A data extraction template was used to synthesise study characteristics and outcomes. Two reviewers completed the selection process and data extraction independently.

**Results.** 2357 citations were identified, from which 101 studies were selected for further review based on title and abstract, of which eight met criteria for inclusion. Further studies were identified by forward and backward citation searching and through