Results. In total, 435 papers were identified. After screening, 99 papers reporting on 87 unique studies with 51,904 participants from 32 LMICs met the inclusion criteria. Study designs included cross-sectional (n = 89), cohort (n = 6) and experimental (n = 4). Overall, 5 scored as high quality, 79 studies scored as moderate and 15 scored as weak quality. Twenty-nine papers reporting on 22 unique studies used validated alcohol use tools including AUDIT, CAGE and WHO CIDI. The pooled prevalence of any hazardous/harmful/dependent alcohol use was 41% (95% CI: 31–51%), and of daily alcohol use was 26% (95% CI: 17–36%). There was variation in harmful alcohol use by global region (Sub-Saharan Africa: 38%; South Asia/Central Asia/ East Asia and Pacific: 47% and Latin America and the Caribbean:44%). Harmful alcohol use was significantly associated with inconsistent condom use (pooled unadjusted RR: 1.65; 95% CI: 1.01–2.67), STIs (pooled unadjusted OR: 1.29; 95% CI 1.15–1.46); and other drug use (pooled unadjusted OR of 2.44; 95% CI 1.24–4.80), but not with HIV, violence or mental health problems.
Conclusion. We found a high burden of problem alcohol use and daily alcohol use among FSWs in LMICs. Harmful drinking was associated with HIV risk factors such as inconsistent condom use, STIs and other drug use. There is an urgent need for tailored interventions for FSWs in LMICs that address alcohol use as well as the associated sex work risk environment

Mental Health Apps (Applications): A Review of Studies Conducted in the UK

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Aims. With advancing technology, there are many online resources available for people with mental health problems. Smartphone software applications are an emerging resource for mental health conditions, for which further research is crucial in understanding its role in the wider community.This study aims to appraise the literature available, surrounding mental health apps (applications) in the UK. Individual applications are studied, for disorders such as Depression, Anxiety, ADHD, Autism and Dementia for patients, carers and clinicians for either assessment or treatment.
Methods. A comprehensive literature search was completed in September 2021, involving the following databases: Cinhal, MEDLINE, Psychinfo, EMBASE, PubMed, Google Scholar, Cochrane and Nice guidelines. Studies involving multiple apps and non apps technology, duplicate studies studying the same app, apps not targeting assessment or treatment and ones that were not in the English language were omitted. Studies performed on those below 18 years of age and ones based outside of the UK were also excluded.
Results. A total of 515 articles were identified, out of which 8 apps were deemed eligible as per our inclusion criteria. 4 apps were based on dementia, 3 for depression, out of which 1 was for antenatal depression and 1 for anxiety. It was then analysed whether some apps investigated assessment, treatment or both. 5 apps were used for the treatment of mental health disorders including 1 for both assessment and treatment and 2 focused on the research, still including assessment of mental health disorders.
Conclusion. This review only looked into apps that are currently available to download in the UK and some apps studied are currently in use in NHS mental health trusts.

In general, digital apps could offer the ability to respond quickly and efficiently and can reach people over great distances with minimal mobility requirements, thus, guided by a rigorous evidence-based approach, apps could be the solution to combat large waiting lists in the NHS.

Developing a Neuromodulation Approach for Treating Working Memory Deficits in Severe Mental Illness

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Aims. We report electroencephalography (EEG) results from a non-patient pilot study conducted whilst developing a neuromodulation approach for improving visual spatial working memory (vSWM) in people with schizophrenia. Working memory impairments are common in people with schizophrenia yet respond poorly to current drug treatments. Transcranial magnetic stimulation (TMS), a minimally-invasive, well-tolerated, brain stimulation technique that is performed whilst a person is awake and alert, may improve working memory performance. However, results have been inconsistent, possibly because TMS was delivered during the heterogenous "resting-state". We delivered TMS to left dorsolateral prefrontal cortex time-locked to specific events in a vSWM task, aiming to modulate functional networks involved in encoding spatial data into working memory.
Methods. Each trial in the vSWM task started with a 2-second-long sample display containing either three or four coloured circles positioned at random locations. This was followed by a 2-second delay period. At the end of the delay period, a visual cue appeared, indicating the target colour. Participants moved a crosshair to the screen location where the target had appeared. We recorded 64-channel EEG throughout. In Experiment 1, twelve participants completed three- and four-item task versions. In Experiment 2, eighteen participants completed the four-item task in three separate blocks within a single session. Between blocks, they completed a short task version alongside TMS. TMS (intermittent theta burst stimulation, 600 pulses, 3.3 minutes) was delivered over the F3 electrode position. Each stimulation on-phase was synchronised to coincide with the onset of sample display. In a random order, one TMS block was active, and one was sham (90° coil rotation).
Results. In Experiment 1, EEG showed decreases ("desynchronisation") in beta (13–30 Hz) power during sample display and increases ("synchronisation") during the delay period. Both effects were greater in the four-item condition, and in posterior electrodes. In Experiment 2, posterior beta desynchronisation during