

Aims. The National Autism Service for Adults receives over 600 referrals annually and with an extensive waitlist, COVID-19 restrictions on in-person assessments were a challenge for service delivery. We aimed to adapt the Autism Diagnostic Observation Schedule (ADOS) for online delivery and investigate whether it is comparable to the in-person ADOS in predicting Autism Spectrum Disorder (ASD) diagnostic outcome. We also aimed to obtain qualitative feedback from service users and clinicians regarding experiences of the online ADOS.

Methods. A working group of staff who administer ADOS and representatives from psychiatry, psychology and management reached consensus that an online version of ADOS module 4 was feasible based on experience that a lot of information required for coding is obtained verbally and some tasks were adaptable for online delivery. After the pilot, it was agreed all algorithm items could be coded except 'unusual eye-contact'. Subsequently, 163 service users attended an online ADOS between August 2020 and February 2021. A matched-comparison group consisted of 198 service users seen for an in-person ADOS between May 2014 and February 2020. Algorithm scores were recorded and ASD diagnosis was made by a trained clinician. Qualitative feedback regarding the online ADOS was collected from 46 service users and 11 clinicians.

Results. The working group agreed the online and in-person ADOS were closely matched regarding administration and coding. Mean scores for service users who received an ASD diagnosis were comparable for the online and in-person ADOS groups (7 and 8 respectively). This was also shown for those who were not diagnosed with ASD (3 and 4 respectively). A two-sample t-test showed no significant difference in total scores between the online and in-person ADOS ($p = 0.38$). Qualitative feedback suggested good service user and clinician satisfaction; only 27% of service users indicated they would have preferred an in-person assessment; 88% of clinicians reported there were gains from offering an online alternative. Although the online and in-person ADOS perform similarly, clinicians reported relying more on qualitative reports over scores from the online version to inform diagnostic decision.

Conclusion. To our knowledge, this is the first study to examine using an online ADOS within an adult diagnostic service. Due to its comparable performance, the online-ADOS is a viable alternative option for service delivery when in-person assessments are not possible. As this clinic group has high rates of comorbid mental health difficulties, the applicability of online assessments could generalise to other services and have an impact beyond the pandemic.

The Effectiveness of Exercise as a Treatment of Major Depressive Disorder in Adolescents: A Systematic Literature Review of Randomised Control Trials

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Aims. Major depressive disorder (MDD) is the most prevalent mental health condition among adolescents. Current treatments have limited effectiveness, accessibility and questionable safety profiles. Exercise is becoming a more widely recognised intervention for MDD in adults. However, evidence and research for its effectiveness in adolescents is lacking. This

review aimed to establish if exercise is effective at reducing MDD symptoms and severity in adolescents, and thus its first-line treatment potential.

Methods. Electronic databases were searched for randomised control trials studying effects of exercise in adolescents, clinically diagnosed with MDD. Trials were excluded if participants' depression was secondary to another disorder or health condition. The primary outcome measure was depression symptom severity, assessed by a validated depression symptom scale. Six trials met the eligibility criteria and were included in this review.

Results. Four trials found reduced depression scores in the exercise intervention group compared to control immediately post-intervention; of the four trials which included follow-up data, all reported higher rates of remission in the exercise intervention group compared to control. The length of exercise intervention programme seems important, needing to be greater than 6-weeks for a therapeutic effect. The type of exercise doesn't appear critical.

Conclusion. Given the small sample sizes and methodological limitations presented by the trials, it is difficult to draw definitive conclusions. Further and larger-scale studies are needed before exercise can become a recognised and readily recommended treatment for MDD in adolescents; but thus far, it seems to have a promising therapeutic potential in both short and long term.

Digital Phenotyping Methods to Measure or Detect Social Behaviour in Patients With Serious Mental Illness (SMI): A Systematic Review. a Closer Look at Bipolar Disorder

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Aims. To provide a fresh insight into the extent digital phenotyping methods have been employed to measure or detect social behaviour in patients with SMIs; with a closer look at those used in Bipolar Disorder (BD); to give findings on the validity, reliability, acceptability and tolerability of these digital phenotyping methods.

Methods. Using specified search terms relating to digital phenotyping metrics and terms related to SMIs, a thorough literature search strategy for studies was employed across the following electronic databases: PubMed, Embase, and PsychINFO - from inception to July 2021.

Included studies employed digital phenotyping methods, collecting either passive, active or mixed-modal data, which in principle reported metrics representing social behaviour on patients with an SMI. Here we present a preliminary analysis of studies reporting results for patients with BD, with a particular focus on tolerability and acceptability.

Results. Of 4,646 records initially screened, a subgroup of 9 studies ($n = 474$) directly focusing on patients with BD are reported here. Across the studies, we find a modest adherence rate towards these applications by patients, ranging from 72.6% to 89.2%. Methods used by the studies include the frequency of phone calls and text messages, and self-reported and observer ratings of social and interpersonal functioning. The collection of such digital phenotyping data appears tolerable and acceptable to