

contact with active researchers in the field. The selected publications included both single and multi-centre studies. The Hyperfine Swoop system was used in almost all studies. Mean participant age range was 31 to 63. Qualitative and quantitative comparisons demonstrated good correspondence between high field and ULF-MRI across a range of measures studied, including volumetric measures and moderate to severe white matter hyperintensities.

Conclusion. The limited available evidence suggests that there is potential for ULF-MRI to transform the approach to neuroimaging in the assessment of dementia. Dedicated research into the use of ULF-MRI in this specific application will determine if it will be one of the much-needed disruptors to our current processes of dementia assessment.

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Youth Group Wellbeing Project for Adolescents Impacted by the March 15 Attacks – Protocol for a Pilot Randomised Waitlist-Controlled Trial

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Aims. Psychological distress is common in adolescence; even more so following traumatic events. On 15 March 2019, two mosques in Christchurch were targeted in an act of terrorism. This has had widespread repercussions in the Muslim and wider community in Christchurch and New Zealand. This protocol offers an integrated group treatment based on an indigenous Islamic Psychology framework incorporating components of established transdiagnostic interventions for increasing wellbeing and reducing psychological distress in teenagers. We aim to measure the effect size of the treatment effect on total difficulties, emotional difficulties, trauma symptoms, somatic symptoms and functional impairment in adolescents self-identifying as impacted by the terror attack. We will measure the degree of parental distress and somatic symptoms to explore whether an intervention for adolescents has an impact on parental wellbeing. We will determine the feasibility and acceptability of this approach to inform supports for similar populations and as an example of cultural adaptation of mental health services.

Methods. This is a randomised controlled trial with a waitlist-controlled design to measure the size of treatment effects on clinical outcomes, and the feasibility of this protocol. We aim to recruit 64 participant families. A 6-week group programme will be offered to teenage participants randomised to the study group and offered to the waitlist group following the study. The study will be community-based in one site. We will assess clinical outcomes including emotional difficulties and somatic symptoms in teenagers (aged 12–19) and parents at baseline, end of treatment and at 3-month follow-up, and measure the project's acceptability with participants and parents. Individuals' experiences of the programme will be examined using qualitative analysis of participant interviews at the end of the programme. Statistical analysis will be a mixed method design including effect size difference calculations, quantitative measures of acceptability and qualitative analysis. Treatment data from participants randomised to the waitlist first will not be included in statistical

comparison of treatment effects but will be used for the assessment of feasibility.

Results. This study will inform whether this unique approach is feasible and easily accessible for adolescents impacted by traumatic events. Its design has been driven by community engagement and stakeholder consultation to consider recruitment, relational safety, screening, and risk management. The project has an emphasis on widening access to mental health supports in a minority faith community by maintaining cultural sensitivity and reducing stigma associated with mental illness.

Conclusion.

Trial registration: ClinicalTrials.gov, NCT05030909. Registered on 8 September 2021.

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Exploring Pathways to Autism Spectrum Diagnosis in Adulthood

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Aims. Autism spectrum is a neurodevelopmental condition usually diagnosed in early childhood. The broadened diagnostic criteria of the DSM-5 (2013) have led to an increasing number of autism spectrum diagnoses of individuals requiring lower levels of support. Barriers to diagnosis, especially in adults, include the complexity of differential diagnosis with co-occurring psychiatric disorders. This study explored the various pathways of psychiatric diagnosis preceding an autism spectrum diagnosis in adulthood.

Methods. This retrospective cohort study was extracted from health-administrative data from Quebec (Canada) and included all adults with a first recorded autism spectrum diagnosis between 2010 and 2017 (index date). A Trajectory of psychiatric Diagnoses (TDx) was defined as a succession of categorical states, each corresponding to a medical record of a psychiatric diagnosis. These TDx were analysed from 2002 to 2017, using a state sequence analysis with trimester as time units. For each trimester, we defined the following diagnoses in order of priority: 1) autism spectrum, 2) intellectual disability (ID), 3) schizophrenia, 4) bipolar disorder (BP), 5) depressive disorder (DD), 6) anxiety disorder (AD), 7) attention-deficit/hyperactivity disorder (ADHD), and 8) other psychiatric disorders. The simple Hamming metric was used to measure the dissimilarity between TDx, followed by a hierarchical cluster analysis to categorise similar trajectories.

Results. The study cohort included 2799 adults diagnosed with autism spectrum between 2010 and 2017. Several psychiatric disorders were recorded during the study period, including AD (77.5%), DD (58.0%), schizophrenia (49.4%), BP (48.3%) and ID (33.2%). Results revealed 5 distinct types of TDx. Types 1 and 2, shared by 63.8% and 17.6% of the cohort respectively, represented individuals in younger age groups with similar characteristics, but with very different sequences of psychiatric diagnoses. Slight or sharp increases in diagnoses were observed around 2010, predominantly associated to autism spectrum in Type 1, and to schizophrenia and AD in Type 2. Individuals

in Type 4 (6%) were little different from Types 1 and 2, but the TDx showed high prevalence of diagnoses of ID, DD, AD and ADHD, decreasing progressively around the diagnosis of autism. Types 3 and 5 (9.0% and 3.6%), representing middle-aged/older groups, displayed distinctive trajectories of high healthcare use, almost entirely associated with schizophrenia (Type 3), and BD (Type 5).

Conclusion. This study proposes a complementary examination of the multiple pathways to diagnosis experienced by autistic adults, highlighting the need for further investigation into co-occurring psychiatric disorders.

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The Influence of Social Media on the Body Image of First Year Female Medical Students of University of Khartoum, 2022

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Aims. Facebook, Instagram, TikTok and other social media applications have become an integral component of everyone's social life, particularly among younger generations and adolescents. These social apps have been changing a lot of conceptions and beliefs in the population by representing public figures and celebrities as role models. The social comparison theory, which says that people self-evaluate based on comparisons with similar others, is commonly used to explore the impact of social media on body image. There is a need to study the influence of those social platforms on the body image as there has been an increase in body dissatisfaction in the recent years.

Methods. This was a cross sectional study that used a self administered questionnaire on a simple random sample of 133 female medical students of the first year. Data were analyzed using SPSS.

Results. Finding shows that the response rate was 75%. There was an association between social media usage and noticing how the person looks (p value = 0.022), but no significant association between social media use and body image influence or dissatisfaction was found.

Conclusion. This study implies more research under this topic in Sudan as the literature are scarce.

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The Role of Rare Copy Number Variants in the Functional Outcomes of Individuals With Neurodevelopmental Conditions

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Aims. Copy number variants (CNVs) are large changes in the structure of DNA. Certain rare CNVs are associated with elevated

chance of neurodevelopmental conditions and difficulties (NDs), including autism spectrum disorder (ASD) and intellectual disability, alongside various physical health complications. Currently, CNV testing in children with NDs is only recommended under limited circumstances, in part because their impact on outcomes and prognosis remains unknown. We aimed to investigate whether individuals with NDs in childhood, with and without rare pathogenic CNVs, differ in terms of functional outcomes in early adulthood.

Methods. Pathogenic CNV carriers were identified in the Avon Longitudinal Study of Parents and Children (ALSPAC), a UK birth cohort of individuals born in 1991–1992. Individuals with the following childhood NDs were identified through parent-reported diagnostic interviews and questionnaires, and assessment with the child: Attention Deficit Hyperactivity-Disorder (ADHD), ASD, reading difficulties, coordination difficulties, language difficulties, and chronic tics. Outcomes were measured at age 25 and included: presence of an emotional disorder, being in receipt of sickness/disability benefit, ability to make and maintain friendships, not being in education, employment, or training (NEET), and self-reported life satisfaction. We will use logistic regression to measure the association between carrying a pathogenic CNV and each functional outcome in ALSPAC. Sensitivity analyses will be conducted on all large (>250kb), rare (<1%) CNVs, as opposed to only pathogenic CNVs.

Results. 983 individuals with probable NDs (39.4% female, $n = 387$) were identified in ALSPAC, including 495 people with ASD, 163 with ADHD, 16 with Tourette's syndrome, 210 with reading difficulties, 295 with language difficulties, and 166 with coordination difficulties. Many individuals met criteria for more than one ND.

43 (4.4%) of individuals with an ND carried a pathogenic CNV. CNV carrier status amongst individuals with a ND was not associated with sex (4.4% of females vs 4.4% of males, OR = 1.007 [0.539–1.882] $p = 0.981$). Analysis of CNV carrier status on outcomes in NDs will be conducted between February and April 2024.

Conclusion. Evidence in support of poorer outcomes in CNV carriers could suggest that neurodiverse young people with CNVs may benefit from intervention to improve outcomes, and thus more individuals may benefit from genetic testing. Conversely, evidence indicating that CNVs do not impact outcomes may suggest that current clinical guidelines are appropriate within the current research landscape, and that further research is needed to understand the impact of carrying a pathogenic CNV in young people with NDs.

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What Is the Evidence for Cognitive Behavioural Therapy for Insomnia (CBTI) in Improving Sleep in People With Mild Cognitive Impairment or Dementia?

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