

sociodemographic and occupational questionnaire was used to obtain sex, age, marital status, education, among others. The WAI consists of seven items, with scores ranging from 7 to 49 points and classified as low (7-27 points), moderate (28-36 points), good (37-43 points) and excellent (44-49 points). Data was descriptively analyzed.

Results: The majority of the sample was composed by women (51,9%), between 31 and 40 years old (37,3%), married (54,7%) and having completed higher education (83,2%). In 2020, 49% of workers had good, 25% had excellent, 23% moderate and 3% low workability. In 2021, 47% had good, 28% excellent, 22% moderate and 3% low workability. In 2022, 50% had good, 27% excellent, 22% moderate and 1% low workability. In 2023, 43% had good, 32% excellent, 22% moderate and 3% low workability.

Conclusion: Brazilian workers from different economic sectors had immediate and late impacts on occupational health during and after the COVID-19 pandemic. In the first year there was a reduction from good to moderate, in the second year the WAI increased from good to excellent and there was a reduction in moderate frequency. In the third year of follow up there was a reduction in moderate and good frequencies and an increase in excellent.

Implications: Implications: It is necessary to implement individual and collective actions to maintain the working capacity of Brazilian workers, with a focus on those with moderate and low workability.

Keywords: Work ability, work, pandemics

Conflict of interest: The authors declare no conflict of interest.

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TRANSCRANIAL DIRECT CURRENT STIMULATION FOR REDUCING IRRITABILITY IN CHILDREN WITH AUTISM SPECTRUM DISORDER

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Background: Autism Spectrum Disorder (ASD) is a neuropsychological condition that affects behavior and communication. Irritability is a common symptom, manifesting as outbursts of anger and difficulties with changes. Transcranial Direct Current Stimulation (tDCS) is a promising technique for modulating these symptoms.

Objectives: Investigating the effect of tDCS combined with virtual reality on reducing irritability in children with ASD.

Methods: A quasi-experimental study was conducted with 18 children diagnosed with ASD. The Childhood Autism Rating Scale (CARS) and the Affective Reactivity Index (IRA) were administered before and after the intervention. For statistical analysis, the Shapiro-Wilk test and paired t-test were used.

Results: There was a statistically significant difference in irritability levels after the intervention ($p = 0.00$), suggesting that tDCS had a positive impact on reducing the symptom.

Conclusion: tDCS combined with virtual reality demonstrated efficacy in reducing irritability in children with ASD, making it a promising alternative for managing these symptoms.

Implications: The results reinforce the need for randomized clinical trials to confirm the effects of tDCS and its clinical applicability.

Keywords: Transcranial Direct Current Stimulation, Irritability, Autism Spectrum Disorder

Conflict of interest: The authors declare no conflict of interest.

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SINGLE-PULSE TMS IN ALS DIAGNOSIS: EMERGING INSIGHTS FROM A SCOPING REVIEW

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Background: Amyotrophic Lateral Sclerosis (ALS) is a progressive neurodegenerative disease with no precise biomarkers that makes early diagnosis challenging. The current diagnostic criteria, such as the El-Escorial and Gold Coast criteria, have limited sensitivity, often delaying neuroprotective treatments and clinical trial recruitment. Transcranial Magnetic Stimulation (TMS) has emerged as a valuable tool to assess corticospinal pathway integrity, offering a potential alternative in detecting early cortical hyperexcitability. Despite promising findings, inconsistencies in methodology and protocol standardization remain inconclusive.

Objectives: This study aims to evaluate the effectiveness of Single-Pulse TMS in ALS diagnosis, addressing key gaps and challenges in existing research.

Methods: In this scoping review, we searched for articles on Single-Pulse TMS using parameters like Resting Motor Threshold (RMT), Central Motor Conduction Time (CMCT), Motor Evoked Potential (MEP), and Silent Period (SP). The PICO strategy guided the research question, ensuring relevant evidence retrieval. Only cross-sectional studies were included, selected from Scopus, PubMed, Embase, and Web of Science (May 2021–Feb 2025). Inclusion criteria required ALS diagnosis using Single-Pulse TMS, while exclusions involved non-relevant techniques, ALS treatment, or language restrictions. Data extraction included patient demographics and disease characteristics. Methodological quality was assessed using JBI checklists for cross-sectional studies, addressing potential biases.

Results: A total of 1,222 articles were identified across four databases, with 19 totally meeting inclusion criteria. The JBI appraisal identified 11 studies as high quality and eight as moderate quality, based on criteria assessing bias, methodological rigor, and validity in cross-sectional research. The studies included 730 ALS patients and 526 controls. Findings in the majority showed reduced SP, lower MEP amplitude, prolonged CMCT, and shorter RMT. Five studies had ambiguous cortical hyperexcitability results.