

caution. Future research is warranted that includes larger sample sizes and younger children with longer follow-up periods. Different modalities of CBT should be explored with and without pharmacological interventions. There is also a case for exploring modalities of CBT that are suitable for targeting in the younger age range of children.

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## Effect of Accelerated TMS vs Daily Sessions on Clinical Outcomes in Depression

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**Aims.** This study investigated the impact of accelerated Transcranial Magnetic Stimulation (aTMS) compared to daily sessions on outcomes in depression patients. While traditional TMS protocols involved daily sessions 4/5 times per week, this can be inconvenient for patients, particularly those travelling long distances to a TMS clinic. Recent well-designed studies have demonstrated that multiple sessions per day (aTMS) can be as effective as daily TMS. It was expected that these findings would be replicated in a clinical setting and that aTMS would be just as effective at reducing symptoms of depression as daily TMS.

**Methods.** A retrospective chart review of 240 patients (126 males, mean age = 42.36, range = 16–86) was analysed using multiple regression. Patients were treated for unipolar depression over the left Dorsolateral Prefrontal Cortex (LDLPFC) using TMS protocols that have been shown to deliver equivalent outcomes (Blumberger et al, 2018).

The aTMS intensity variable (aTMSiv) was calculated by dividing total number of TMS sessions by number of days between the first and last session (minimum of five days for inclusion). Therefore, a patient who had 30 sessions over 15 days would have an aTMSiv of 2. The mean number of sessions delivered was 24.46 (SD = 8.01, Range = 7–45) and the mean days between first and last treatment was 35 (SD = 20.21 Range = 6–105).

The main outcome variable was percentage reduction of PHQ-9 scores from baseline (mean = 17.89) to treatment completion (mean = 10.76). The mean reduction in PHQ-9 was 40%. The independent variables (IVs) included: aTMSiv, PHQ-9 baseline score, number of sessions, age and sex.

**Results.** Collectively the IVs predicted PHQ-9 reduction at a statistically significant level ( $F(5,234) = 7.91, p = 6.70E-07, R^2 = 0.14$ ). Individual analysis of predictors revealed that aTMSiv did not significantly predict PHQ-9 reduction ( $F(1,238) = 0.05, p = 0.82, R^2 = 0.0002$ ). Only number of sessions significantly predicted PHQ-9 reduction in this model ( $t = 6.04, p = 5.88E-09$ ).

**Conclusion.** As the aTMSiv did not predict the change in PHQ-9, this suggests the frequency at which TMS is delivered does not affect the outcome when treating depression. Thus, either daily sessions or aTMS can be utilised to best fit the schedule and lifestyle of the patient.

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## Risk Perception and Psychosocial Impact During the Early Period of the COVID-19 Pandemic on Healthcare Workers

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**Aims.** This study sought to elucidate the occupational health risk perception and psychological impact during the early phase of the COVID-19 pandemic on healthcare workers in a general hospital in Singapore, and factors that influenced risk perception and psychological impact.

**Methods.** Healthcare workers from a general hospital in Singapore were invited to participate in an online survey in June 2020. It posed questions on demographic and occupational information (age, gender, nationality, marital status, profession, working area, length of working experience in healthcare), 20 items on occupational health risk perception and psychological impact of COVID-19, and the Depression Anxiety and Stress Scale-21 (DASS-21).

The 20 items were adapted from a previous study during the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak and designed to assess participants' perceived exposure risk, risk acceptance, families' perception, stigmatisation, feelings of appreciation, workload, and perceived effectiveness of workplace protective measures. Participants' responses were obtained on a 6-point Likert scale (strongly agree, agree, somewhat agree, somewhat disagree, disagree, strongly disagree).

For data analysis, responses on occupational risk perception were regrouped into three levels. Depression, anxiety, and stress scores were categorised into quartiles. Ordinal logistics regression was used to compare the association of occupational risk perception with DASS-21 scores, and demographic factors with occupational risk perception. Variables that showed statistical significance (set at  $P < 0.05$ ) in univariate analysis were included in the multivariate ordinal logistics regression model to identify independent predictors.

**Results.** There were 1252 respondents (92 doctors, 661 nurses, 318 allied health professionals, 181 administrative and support personnel). 85% felt an increased risk of exposure to COVID-19 while 90% accepted the risk as part of their jobs. Stigmatisation against healthcare workers was present, with 45% reported they were shunned and 21% reported their families were avoided. 78% experienced increased workload. Fortunately, most (94%) found workplace protective measures adequate, and felt appreciated by their employer (87%) and society (81%).

Increased perception of occupational health risk was significantly associated with nursing profession, workers in patient-facing areas, and staff with shortest working experience in healthcare.

The mean DASS-21 scores were 9.2 (borderline normal) for Depression, 8.5 (borderline mild) for Anxiety, and 10.9 (normal) for Stress. Increased DASS-21 scores were significantly associated with greater occupational risk perception, younger age, and less years of working experience.

**Conclusion.** Occupational risk perception amid the early COVID-19 pandemic is associated with adverse mental health among healthcare workers. Nurses, younger staff, and staff with least working experience are more vulnerable.

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## The Role of Depression and Anxiety in Explaining the Association Between Cognitive Function and Disability in the General Population

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**Aims.** In the United Kingdom, 14.6 million people reported having a disability in the year 2020–2021. Cognition may be one factor that contributes to disability, as previous studies have shown that cognitive abilities predict later health outcomes and prevalence of disability increases with decreasing cognitive function. Furthermore, studies have demonstrated a link between cognition and common psychiatric disorders, such as depression and anxiety. To our knowledge, no studies have examined the role of current mental health in the association between cognition and disability in a general population sample. The aim of this study was to examine the relationship between cognition, mental health and measures of disability/daily functioning in an online population sample. Our hypotheses were: 1) that lower cognitive performance would be associated with increased reported disability, and 2) that this association would be partly explained by current depression and anxiety symptoms.

**Methods.** The sample consisted of 3679 participants recruited from HealthWise Wales. Participants completed the Cardiff ONLINE Cognitive Assessment, a web-based battery of five tasks assessing processing speed, working memory, vocabulary, reasoning, and emotion identification. Disability was assessed using the World Health Organisation Disability Assessment Schedule (WHODAS). Real world measures of functioning were also included (currently employed, living with a partner, children and ever married). Current depression and anxiety symptoms were assessed using the Hospital Anxiety and Depression Scale (HADS). Linear and logistic regressions were conducted to assess the associations between cognitive performance and measures of disability/functioning. Structural equation modelling was performed to assess whether these associations could be partially explained by HADS scores, as well as measures of education and health/lifestyle factors.

**Results.** Higher cognitive performance was associated with lower overall WHODAS scores ( $B = -0.1$ ,  $SE = 0.01$ ,  $P = 1 \times 10^{-13}$ ), living with a partner ( $OR = 1.13$ , 95%  $CI = 1.06-1.21$ ,  $P = 4.3 \times 10^{-4}$ ) and being in employment or education ( $OR = 1.22$ , 95%  $CI = 1.13-1.33$ ,  $P = 2.1 \times 10^{-6}$ ). HADS scores partially explained the relationship between cognition and: 1) WHODAS (80%), 2) employment (63%) and 3) living with a partner (37%). In addition, smoking status explained 3% of the relationship between cognition and WHODAS.

**Conclusion.** Current symptoms of depression and anxiety partially explained the relationship between cognition and three measures of disability/functioning. Alleviating these symptoms may improve patients' daily difficulties. Future research should establish the direction of causality of these associations.

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## Recruitment and Retention Survey – What Did Speciality Trainees (STs) Say?

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**Aims.** Recruitment and retention of medical staff is a national issue. Leicestershire Partnership NHS Trust (LPT) has significant challenge like many other neighbouring Trusts in this regard. Low level of staff means challenges in provision of adequate and efficient patient care. There is a lack of flexibility for clinicians to get time for Supported Programmed Activity (SPA). Burn out of existing clinicians and losing good will is common which increases patients' complaint and potential risk of near misses and serious incidents. Despite the East Midland being one of the popular deaneries among STs, retention of locally trained STs post CCT remained a challenge. Thus, the aim of this study was to find out proportion of speciality trainees (STs) doctors satisfied with current job and to explore their views on current difficulties and ways to retain and support them post CCT in career progression within the training Trust.

**Methods.** It was a cross-sectional survey. The target population was STs working in the East Midland deanery. An online questionnaire was developed for data collection. Data were gathered through open (free text) and close (options provided) questions. Information was collected regarding job satisfaction, positive and negative of job, difficulties and challenges in current role, willingness to continue post CCT within Trust and if they would recommend friends or colleagues to join LPT. Results are reported in percentages for descriptive statistics.

**Results.** About 59% of the STs were satisfied with their current training. Key positive of jobs include helpful colleagues, good trainers and supervision, autonomy, flexibility, good on-call rota pattern, work life balance, and protected time for teaching. Interest is shown for various SPA activities (teaching, audit, QI project, research, leadership and management). However, wide variety of challenges being also reported at individual, team and organisational level.

Over 70% of the participants shown interest to work for LPT post CCT but requested for additional support in term of flexibility of job description and role whereas remaining 30% reported to move into private sector due to better pay and work life balance. Surprisingly only 23.5% clearly stated, they would recommend a friend or a colleague to join LPT.

**Conclusion.** Majority of STs doctors were satisfied and willing to continue working post CCT in LPT. However, reported challenges need prompt response and early discussion and planning with STs in term of what local Trust can offer and support would ensure their retention and enhance recruitment while they are being advocate for the LPT.

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## Findings of Recruitment and Retention Survey – Consultants' Perspective

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