

**Conclusion.** We have observed clear differences in the pattern of referrals made to the adult PLNS during the first COVID-19 national lockdown. COVID-19 was implicated in a minority of referrals, but most were related to secondary effects of lockdown restrictions rather than COVID-19 infection. Possible reasons for fewer referrals during this time could be non-presentation through fears of contracting COVID-19 or altruistic avoidance of putting “pressure on the NHS”. Further studies would be insightful; in particular, equivalent analysis of contacts with community services; and qualitative patient perspectives regarding reasons for non-presentation during this time.

### Longterm cognitive dysfunction in paediatric brain tumour survivors - the need for multifactorial risk screening

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**Aims.** Identify common risk factors for longterm cognitive dysfunction in PBTS (paediatric brain tumour survivors) Examine how various paediatric cancer treatment modalities affect cognitive outcomes Consider baseline features which may increase the risk of cognitive dysfunction in PBTS

**Method.** Current research into the neuropsychiatric sequelae of childhood brain tumours is limited, therefore review of the literature was conducted to identify research within this field.

#### Databases

Google Scholar - papers accessed via the University of Brighton or Sussex online library

NICE HDAS - HMIC, AMED, MEDLINE, BNI, PsycINFO, CINAHL, Pubmed, EMBASE & EMCARE

Mendeley reference manager - papers for background reading  
Search terms

PICO(T) method - Population (Cancer Survivors), Intervention (Cancer Treatment), Comparison (Brain tumour), Outcome (Cognitive dysfunction) & Time (Childhood & adolescence)  
Boolean operators (AND/OR), truncation and wildcard search functions were also utilised.

Inclusion criteria; no limits on date, study type or gender, however, study results were limited by age - as the research focus was restricted to children and adolescents.

Excluded results; papers which did not meet inclusion criteria, duplicate studies, studies measuring non-cognitive cancer outcomes or investigating non-cortical tumours, non-English language studies with no available English translations.

**Result.** Common risk factors - certain tumour types (glioneuronal tumours or gliomas) or inner cortical tumour sites e.g. were more vulnerable to epileptogenesis. In particular, seizures which were prolonged and treatment-resistant were associated with a greater degree of cognitive dysfunction.

Impact of various cancer treatment modalities - overall results understandably suggested that patients are more likely to develop cognitive deficits following brain tumour treatment. In particular, partial tumour resection (especially if epileptogenic), whole-brain irradiation, cranial radiotherapy and chemotherapy were more likely to impact cognitive function.

Baseline features that may increase likelihood of cognitive dysfunction e.g. intellectual disability or education level were not noted in the reviewed literature.

**Conclusion.** Cancer is one of the leading causes of global child mortality, and younger populations often present to paediatric oncology services with brain tumour involvement. Current

childhood brain tumour research has begun to recognise that many young survivors develop into adulthood with cognitive sequelae impacting quality of life measures. However, existing evidence is also limited and requires further research to produce a standardised clinical tool for screening various risk factors which may increase longterm risk of cognitive dysfunction and subsequent difficulties with daily life.

### Sexual and reproductive health needs assessment & interventions in a female psychiatric intensive care unit

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**Aims.** To assess the sexual and reproductive health (SRH) needs of women admitted to a psychiatric intensive care unit (PICU), and acceptability of delivering specialist SRH assessments/interventions in this setting. Secondary aims were to explore the barriers to access and the feasibility of providing SRH assessments and interventions in the PICU.

**Method.** A retrospective analysis of fifteen months' activity data found that only 25 SRH referrals had been made across 205 PICU admissions. This low referral rate of 12% likely reflected pathway barriers and was unlikely to represent the actual clinical need in female PICU patients. A bi-monthly SRH in-reach clinic and a nurse led SRH referral pathway were implemented on the PICU over a seven-month period. Within a quality improvement framework, a staff training needs assessment was performed, training delivered, a protocol developed, staff attitudes explored, and patient and carer engagement sought.

**Result.** A quality improvement approach streamlined SRH assessments on the PICU and resulted in 42% of women being assessed and a 3.5-fold increase in uptake. At least 30% of the women in the PICU had unmet SRH needs identified and proceeded to a specialist appointment. This amounts to a minimum 2.5-fold increase in SRH unmet need detection.

The most common SRH needs were complex gynaecological issues (such as period problems, pelvic pain, vaginal discharge), STI advice/testing and contraception advice/options. 21% of women initiated SRH interventions, and 14% completed all the interventions required for their needs. The most common interventions were in the areas of contraception advice/family planning and STI advice/testing.

Staff confidence on assessing SRH topics was identified as a barrier to access with a positive shift noted after bespoke SRH training was implemented and a protocol introduced: on a scale of 0-10 (with 10 being high), 81.3% of staff rated their confidence 8 or above in relation to discussing contraception/sexually transmitted infections (pre-training: 25.0%), and 93.8% in relation to discussing risky behaviours (pre-training: 18.8%). All 11 patient and carer participants felt it was important to have a forum to talk about SRH and 8 (72.7%) agreed it was important in the PICU.

**Conclusion.** Results identify that SRH needs for PICU admissions are greater than previously realised. Staff highlighted the acceptability and importance of SRH care, if interventions are appropriately timed and the patient's individual risk profile considered.

Providing a nurse led referral pathway for an SRH in-reach clinic is acceptable, feasible and beneficial for PICU patients.

### Comparison of self-esteem and depression among fertile and infertile women

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**Aims.** This study aimed to explore the effect of infertility on self-esteem and depression, and to identify the sociodemographic and infertility characteristics associated with self-esteem and depression among infertile women in Ekiti State, Nigeria.

**Method.** Self-esteem and depression were assessed in 100 infertile women and 100 women seeking family planning (controls) using the Rosenberg Self-Esteem Scale (RSES) and Patient Health Questionnaire (PHQ-9), respectively. PHQ-9 score  $\geq 10$  was defined as major depressive disorder (MDD). Continuous variables were presented as mean  $\pm$  standard deviation and categorical variables as frequency (percentage). Cases and controls were compared using Student's *t* test,  $\chi^2$  or Fisher's exact (when cell size  $< 5$ ) tests were performed to compare proportions. Simple and multiple linear regression analyses were used to examine the association between the sociodemographic, infertility characteristics and RSES or PHQ-9 scores among infertile women

**Result.** Infertile women had significantly lower RSES score ( $19.4 \pm 4.5$  vs.  $20.7 \pm 4.4$ ,  $p = 0.038$ ) and higher PHQ-9 score ( $5.1 \pm 4.1$  vs  $3.8 \pm 3.5$ ,  $p = 0.023$ ) compared to controls. Seventeen infertile women (17%) and 8 women in the control group (8%) had MDD (PHQ-9 score  $\geq 10$ ) and were referred for further evaluation. Among infertile women, marital status, being remarried, duration of infertility, and RSES score were associated with PHQ-9 score on simple linear regression. Similar association was not seen in the controls. On multiple linear regression analysis, RSES score had a negative association with PHQ-9 score ( $\beta = -0.32$ ,  $p < 0.001$ ) among infertile women. Older age [OR (95% CI): 1.13 (1.01–1.25);  $p = 0.030$ ],  $\leq 6$  years formal education [OR (95% CI): 4.76 (1.13–20.00);  $p = 0.033$ ], being remarried [OR (95% CI): 10.87 (1.86–63.64);  $p = 0.008$ ], longer duration of infertility [OR (95% CI): 1.11 (1.01–1.22);  $p = 0.040$ ] and RSES score [OR (95% CI): 0.79 (0.67–0.92);  $p = 0.003$ ] were significantly associated with MDD. On multiple logistic regression analysis, only the association between RSES score and MDD remained statistically significant ( $p = 0.004$ )

**Conclusion.** Infertile women have lower self-esteem and higher depression scores in comparison to women seeking family planning. Mental health screening and management should be an integral part of care administered to infertile women

### A natural language processing approach to modelling treatment alliance in psychotherapy transcripts

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**Aims.** Patient-therapist alliance is a critical factor in psychotherapy treatment outcomes. This pilot will identify language

concepts in psychotherapy transcripts correlating with the valence of treatment alliance using natural language processing tools. Specifically, high-order linguistic features will be extracted through exploratory analysis of texts and interpreted for their power to discriminate alliance rated by patients.

**Method.** Adult patients and therapists in outpatient clinic at various stages of relationship building and treatment goals consented to participate in the cross-sectional study approved by the Institutional Board Review. Psychotherapy sessions were recorded using wireless microphones and transcribed by two research assistants. After the recording, each patient completed Working Alliance Inventory– Short Form, to generate clinical scores of alliance. We used the Linguistic Inquiry Word Count (LIWC) tool to map words to psycholinguistic categories, and generated novel linguistic parameters describing the individual language for each speaker role. Canonical-correlational analysis and descriptive statistics were used to analyze the two datasets.

**Result.** Patients ( $N = 12$ , 83% female, mean age = 40) were primarily diagnosed with personality disorders (67%) working on real-life interpersonal issues (median treatment duration 18.5 weeks, 50% psychodynamic, 32% cognitive-behavioral, 16% supportive modality). In this heterogeneous sample, patients who used the “achieve” (e.g. trying, better, success, failure) and “swear” psycholinguistic categories of words rated the treatment alliance lower ( $r = -0.70$ ,  $p = 0.01$ ;  $r = -0.65$ ,  $p = 0.02$ ). Patients rated alliance lower with therapists, who used more “I” pronoun ( $r = -0.58$ ,  $p < 0.05$ ) and higher with therapists using more “risk” (difficult, safe, crisis) and “power” (important, strong, inferior, passive) categories ( $r = 0.66$ ,  $p = 0.02$ ,  $r = 0.58$ ,  $p < 0.05$ ), which commonly appeared in psychoeducation and conceptual framing of problems. Interestingly, there was no correlation with “affiliation” category ( $p = 0.9$ ). Linear regression modeling from “achieve,” “swear” variables and “I,” “risk” variables with duration of treatment as covariate predicted the patient's rating of alliance (Adjusted  $R^2 = 0.66$ ,  $p = 0.03$ ).

**Conclusion.** Our data collection and sub-sample analysis are ongoing. Preliminary results are showing speaker-specific language patterns in cognitive-emotional domain, e.g. self-expressivity, and in clinician's therapy style, covarying with the patient's perceived closeness in the heterogeneous treatment dyads. Novel application of natural language processing to characterize alliance using the data-driven approach is an unbiased method that can provide feedback to clinicians and patients. This characterization can also potentially provide insights into the mechanisms underlying the therapeutic process and help develop psycholinguistic markers for this critical clinical phenomena.

### Remotely connected: patient and clinician video care experiences in secondary mental health services during COVID-19, including future preferences

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