Finally, a significant correlation was also found between Depression and Psychological Domain of QOL ($t = 3.048$, $p < 0.01$) and Social Domain of QOL ($t = 2.154$, $p = 0.03$).

Conclusion. This study shows that primary caregivers of patients with schizophrenia have high prevalence of depression and poor quality of life. There is need to pay attention to the psychological wellbeing and quality of life of caregivers who come in contact with psychiatric services, and not just the patients they accompany.

Management of medically unexplained symptoms (MUS): a stepwise integrated model between primary and secondary caremanagement of medically unexplained symptoms (MUS): a stepwise integrated model between primary and secondary care

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Aims. Description of a model to improve care for patients with Medically Unexplained Symptoms (MUS) by small targeted investment and maximisation of existing resources.

Background. Treatment of MUS presents several challenges including a lack of clarity on the best models of care and limited service provision. Patients typically present with a physical complaint to physical health outlets: here limited confidence in professionals around how to address these often leads to poor patient/doctor experience, inappropriate use of resources and repeated attendance. Evidence shows that integration of care, psychological interventions and upskilling physicians in interventions such as positive communication, can significantly improve outcomes. Psychiatric Liaison Teams (PLT) are positioned at the interface of mental and physical health services and can play a crucial role for these patients, when provided with the right skill-mix.

Method. 1FTE Clinical Psychologist specialising in MUS was integrated into the PLT. Pathways to triage between primary, secondary psychology and the new service were agreed, alongside channels of communication and supervision. The job plan included integrated sessions in Gastroenterology, Rheumatology and PLT. The activities included: assessments, formulations and discharges; brief psychological interventions; group sessions for patients; one-day long courses to GP trainees and physicians, and input in specialities MDTs. Clinical outcomes, numbers of patients seen and signposted, teaching sessions and simulation training delivered were collected.

Result. Over 20 months the service was able to process 237 referrals, 35 were managed over the phone. Referral sources: Gastroenterology 32%, Rheumatology 37%, Psychiatric liaison 28%.

116 patients attended 315 face to face appointments and 21 phone contacts were made. Core-10 data show reduction from moderately severe to mild psychological distress in a sample of patients. 58% of patients were referred on for continuing care. The service ran 8 patient groups including sessions on pain management and joint sessions with Rheumatology. It ran 9 one-day long courses for GP and physician trainees, training a total of 120 doctors: feedback showed increased confidence in managing and recognising MUS. Attendances to Emergency Departments covered by Barking Havering and Redbridge and Bart's Health Trusts combined (5 sites) reduced by 22%, saving an estimated £19,200, while ambulance usage in the cohort dropped by 29%, saving an estimated £9072.

Conclusion. The integration of a specialist psychologist with a mix of educational, advisory and clinical role to a PLT can provide an effective and efficient stepped-up model to increase the provision of care for patients with MUS

Identifying perinatal self-harm in electronic healthcare records using natural language processing

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Aims. 1.To generate a Natural Language Processing (NLP) application that can identify mentions of perinatal self-harm among electronic healthcare records (EHRs)

2.To use this application to estimate the prevalence of perinatal self-harm within a data-linkage cohort of women accessing secondary mental healthcare during the perinatal period.

Method. Data source: the Clinical Record Interactive Search system. This is a database of de-identified EHRs of secondary mental healthcare service-users at South London and Maudsley NHS Foundation Trust (SLaM). CRIS has pre-existing ethical approval via the Oxfordshire Research Ethics Committee C (ref 18/SC/0372) and this project was approved by the CRIS Oversight Committee (16-069). After developing a list of synonyms for self-harm and piloting coding rules, a gold standard dataset of EHRs was manually coded using Extensible Human Oracle Suite of Tools (eHOST) software. An NLP application to detect perinatal self-harm was then developed using several layers of linguistic processing based on the spaCy NLP library for Python. Evaluation of mention-level performance was done according to the attributes of mentions the application was designed to identify (span, status, temporality and polarity), by comparing application performance against the gold standard dataset. Performance was described as precision, recall, F-score and Cohen's kappa. Most service-users had more than one EHR in their period of perinatal service use. Performance was therefore also measured at "service-user level" with additional performance metrics of likelihood ratios and post-test probabilities. Linkage with the Hospital Episode Statistics datacase allowed creation of a cohort of women who accessed SLaM during the perinatal period. By deploying the application on the EHRs of the women in the cohort, we were able to estimate the prevalence of perinatal self-harm.

Result. Mention-level performance: micro-averaged F-score, precision and recall for span, polarity and temporality all >0.8. Kappa for status 0.68, temporality 0.62, polarity 0.91. Service-user level performance: F-score, precision, recall all 0.69, overall F-score 0.81, positive likelihood ratio 9.4 (4.8–19), post-test probability 68.9% (95%CI 53–82).

Cohort prevalence of self-harm in pregnancy was 15.3% (95% CI 14.3–16.3); self-harm in the postnatal year was 19.7% (95% CI 18.6–20.8). Only a very small proportion of women self-harmed in both pregnancy and the postnatal year (3.9%, 95% CI 3.3–4.4).
Conclusion. NLP can be used to identify perinatal self-harm within EHRs. The hardest attribute to classify was temporality. This is in line with the wider literature indicating temporality as a notoriously difficult problem in NLP. As a result, the application probably over-estimates prevalence, to a degree. However, overall performance, given the difficulty of the task, is good.

Bearing in mind the limitations, our findings suggest that self-harm is likely to be relatively common in women accessing secondary mental healthcare during the perinatal period.

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Junior doctors rate online simulation as 'good enough' but not as good as face to face sessions

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Aims. To compare the feasibility and acceptability of delivering a simulation-based learning (SBL) programme for Junior Doctors virtually versus face to face.
Method. The Nottinghamshire Healthcare Simulation Centre has been delivering a SBL programme for Foundation Year 2 doctors on behalf of Health Education East Midlands for the past three years. Since face to face teaching was not possible during the COVID-19 pandemic the programme was delivered online using the same content and format as for prior cohorts. Feedback questionnaires from 128 face to face participants (F2F) and 133 virtual participants (V) were compared.
Result. There was a decrease in Likert scale ratings across all domains in the virtual group. This was most apparent when examining the 'strongly agreed' responses: the venue/remote format was suitable for the session 34% decrease, the course length was appropriate 24% decrease, the pace of the course was appropriate 20% decrease, the simulation was helpful and relevant 15% decrease, the content of the course was organised and easy to follow 13% decrease, the learning objectives were met 10% decrease, the presenters were engaging 6% decrease, the trainers were well prepared 3% decrease. The virtual group included responses in the 'strongly disagree' and 'disagree' categories relating to the virtual format, length and pace, which did not occur in any domain for the F2F group.

Combining the 'strongly agree' and 'agree' statements also showed a decrease in satisfaction with 72.5% of responses falling into this category for the V group and 88.3% for the F2F group. Fewer participants in the V group would recommend the course to a colleague (98% V vs 99% F2F).
Conclusion. Providing the SBL programme using an online format was feasible while also being acceptable to most participants. However, participants did not rate this experience as highly as face to face teaching. The largest decreases in satisfaction were in areas related to the virtual format. An interesting finding is that participants rated the pace and length of the online course as less agreeable, despite the content and scheduling being the same as for the face to face group.

Based on these findings face to face teaching should resume when practicable. In the meantime, the virtual delivery may be improved if the course length was reduced. Analysis of qualitative feedback may provide insights into why participants did not rate the virtual simulation as highly as the face to face equivalent.

Physical health audit of gwent specialist substance misuse services (North Team)

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Aims. The scope of this audit is to look at the:

1. Completion rates of standard 12 lead electrocardiograms (ECGs)
2. Completion rates of physical examinations
3. Analysis of the reported findings elicited from physical examinations
4. Completion rates of Blood borne virus (BBV) screens; for hepatitis B, hepatitis C, and human immunodeficiency virus (HIV)

Method. Physical Examination: All patients' physical GSSMS notes were checked for a Medical Assessment sheet. If no physical examination documentation was found, the generic clinical notes were examined for evidence of a physical examination. All findings were recorded in Microsoft Excel for descriptive analysis. Findings were then grouped into generic categories such as infectious, cardiac, etc. (see Figure 7).

ECG: All patient notes were examined in the 'Investigations' section to determine if an ECG was included. Print outs of ECGs done by other agencies/teams were accepted as long as they were within date. If a patient had an ECG on Clinical Workstation (CWS) within date it was not included in the audit unless the ECG was printed and filed in the 'Investigations' section.

BBV Screen: All patient notes were investigated to find evidence of the BBV consent sheet or print out of the results. If no evidence was found, CWS was checked for evidence of a blood borne virus screen. 5 Analysis of BBV screen results and completion of consent sheets were beyond the scope of this audit. If a patient had a BBV screen that was different to the standard GSSMS screen, such as a screen with HIV only or a BBV screen as part of an ante-natal screen, it was still included as a completed BBV screen.
Result. Total patients initially included (n = 125). Patients included in analysis (n = 121). Patient notes not on site (n = 2). Patients assessed on ward but did not engage with service afterwards (n = 2)

Physical Examinations

Received a physical examination by GSSMS (n = 60)