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).