followed by individual (n = 12), mixed format (n = 14) and electronically (n = 2).

TPE programmes exhibited diversity in delivering agents and intervention formats, with a notable presence of multidisciplinary teams and various professionals. The interventions prioritized coping strategies and disease management techniques, though the extent varied based on the disorder. Examining the different skills imparted during the interventions, the focus predominantly leaned towards the teaching of coping strategies. These encompassed both cognitive and behavioural coping skills, including areas such as self-confidence (n = 37), stress management (n = 39), critical thinking (n = 26), problem-solving (n = 18), goal setting (n = 31), situational awareness (n = 36), and self-care (n = 36), with unspecified coping skills also noted (n = 32).

Effectiveness was heterogeneous across studies; some interventions showed significant benefits in areas such as symptom management, coping, and functional improvement, while others reported no significant outcomes.

Conclusion. The findings underscore the potential of TPE in psychiatric care, revealing its multifaceted nature and varied impact. TPE not only addresses deficits but also leverages patients' existing strengths and capabilities. Despite the reported benefits, a portion of the interventions lacked statistical significance, indicating the necessity for continuous refinement and evaluation.

Modelling Clozapine Levels to Identify Safe Titration Targets and a Method for Precise Dose Adjustment

Dr Zeryab Meyer[1,2]*, Miss Gemma Simpson[3] and Professor Richard J Drake[1,4]

[1]Division of Psychology & Mental Health, University of Manchester, Manchester, United Kingdom; [2]Northern Care Alliance NHS Foundation Trust, Greater Manchester, United Kingdom; [3]Pennine Care NHS Foundation Trust, Greater Manchester, United Kingdom and [4]Greater Manchester Mental Health Trust, Greater Manchester, United Kingdom

*Presenting author.

doi: 10.1192/bjo.2024.210

Aims. A precision medicine approach to clozapine dosing aims to personalise it in two ways: i) during titration, and ii) for succeeding dose adjustments. This requires valid models of dose/concentration relationships, but cross-sectional models suffer from population-level artefacts and individual problems due to poor adherence or stopping smoking. Longitudinal data sets from two mental health trusts allowed poor adherence and smoking cessation to be identified. We then modelled dose/concentration relationships to construct personalised targets for i) and ii).

Methods. Demographics and co-prescribed medication were recorded for 137 patients from Greater Manchester Mental Health (GMMH) Trust who had two or more successive plasma levels and doses from 2016–2018. 412 patients from Pennine Care Foundation Trust (PCFT) who had successive plasma levels and doses from 2009–2023 were also recorded. In each sample, adherent patients (88 from GMMH and 371 from PCFT) were identified after excluding: > two-fold variation between blood samples in clozapine/norclozapine ratios, > two-fold variation in dose/concentration ratios, a clozapine/norclozapine ratio > 3, or a dose/concentration ratio > two standard deviations from the sample mean. Those whose smoking status (smoker vs non-smoker) changed between samples were excluded.

To identify i) titration targets, we used raw data in first samples (checked with logistic regression) to identify dose thresholds which produced most levels above 0.35 μg/ml (therapeutic) and no levels greater than 1 μg/ml (toxic). To model ii) effective dose adjustment, we used the equation Dt = Dc(Ct/Cc) to identify the most effective dose for the second samples. Dt was target dose, Dc current dose, Ct target level (0.45 μg/ml), and Cc current level.

Results. First sample dose/concentration ratio in adherent patients correlated r > 0.75 with second samples' dose/concentration. >84% of plasma levels were within 20% of the mean across both samples.

i. The GMMH dataset titration targets were 325 mg, 300 mg, 225 mg, and 175 mg daily for male smokers, female smokers, male non-smokers, and female non-smokers, respectively. In PCFT, data suggested corresponding targets of 375 mg, 325 mg, 225 mg and 175 mg. Targets avoided toxicity and gave therapeutic levels in > 50% of cases.
ii. Target dose, ascertained using the equation, and actual second dose were compared: in adherent cases, toxicity only occurred when actual doses were 1.5-fold greater than target dose, and above target all plasma levels exceeded 0.35 μg/ml in GMMH. PCFT data appeared similar.

Conclusion. Relatively safe and effective titration targets for smokers and non-smokers from both sexes were identified. A simple equation would improve precision and effectiveness of dose adjustment thereafter.

Benzodiazepine Use Disorder Observed and Diagnosed in a Tertiary Care Pediatric Specialty Clinic: A Descriptive Retrospective Chart Review

Ms Alex Smithers[1], Dr Laura Miller[2]*, Dr Melanie MacInnis[2] and Dr Selene Etches[2]

[1]NS Health, Halifax, NS, Canada and [2]IWK Health, Halifax, NS, Canada

*Presenting author.

doi: 10.1192/bjo.2024.211

Aims.

Objectives: In youth and young adults, it is common to encounter non-medical use of benzodiazepines, defined as use without a prescription or use for reasons other than that for which the medication is intended. Benzodiazepine use disorder remains understudied and overlooked, especially in youth and young adults. The primary objective of our study was to highlight the proportion of youth and young adults with aberrant use of benzodiazepines and diagnosed with benzodiazepine use disorder in a single centre. The secondary objective was to determine factors associated with aberrant benzodiazepine use and benzodiazepine use disorder in that sample.

Methods. This retrospective chart review screened for benzodiazepine use in 310 adolescent patients aged 12–19 seen for the first time in a concurrent disorders clinic, at a tertiary care clinic in Canada. Of those 310 patients, 167 were included in the final chart review.

Results. 97.6% of patients who used benzodiazepines demonstrated aberrant use, and 39.3% of patients received a diagnosis of benzodiazepine use disorder.

Conclusion. This review showed that a substantial percentage of youth and young adults in a concurrent disorders clinic in