2025

ABSTRACT BOOK
PSYCHIATRY RESEARCH DAY

11. November at 12-16

Auditorium G206 145, Aarhus University Hospital,
Entrance G, Palle Juul-Jensens Boulevard 99, 8200 Aarhus

AARHUS UNIVERSITY

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Central Denmark Region

Abstract book

for

Psychiatry Research Day 2025

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Indhold

Program

12:00-12:40	**Poster session and sandwiches**
12:40-12:45	**Welcome to Psychiatry Research Day** Opening speech by Jakob Paludan, Chief Medical Officer

Oral presentations part 1: Lærestolsprofessor Per Hove Thomsen

12:45-13:15	**Effectiveness and costs of stage-based, transdiagnostic CBT versus management as usual for help-seeking youths with emotional and behavioral difficulties: The Mind My Mind trial** **Keynote speaker**: Pia Jeppesen, Professor, PhD, Head of Research unit, Department of Child and Adolescent Psychiatry Copenhagen University Hospital – Psychiatry Region Zealand & Faculty of Health and Medical Sciences, University of Copenhagen, Denmark
13:15-13:30	"**A nationwide register-based cohort study of substance use disorders and use of somatic health services among patients in forensic psychiatric departments".** Christian Jentz, Department of Forensic Psychiatry, Aarhus University Hospital, Psychiatry, Denmark.
13:30-13:45	**"Efficacy of a Transdiagnostic Sleep and Circadian Intervention for Outpatients With Sleep Problems and Depression, Attention Deficit Disorder, or Bipolar Disorder: A Randomized Controlled Trial".** Mette Kragh, Department of Affective Disorders, Clinical nurse specialist
13:45-14:00	**"Altered Auditory Processing in Adolescents at Familial and Polygenic Risk for Schizophrenia and Bipolar Disorder".** Oskar Jefsen, Postdoc, Psychosis Research Unit, Aarhus University Hospital – Psychiatry, Aarhus Denmark
14:00-14:25	**Break, poster session with coffee/tea and cake**

Oral presentations part 2: Lærestolsprofessor Ole Mors

14:25-14:55	**Virtual reality assisted psychotherapy for schizophrenia spectrum disorders: evidence from randomized trials and next-generation studies** **Keynote speaker:** Louise Birkedal Glenthøj, DMSc, PhD, Associate Professor, VIRTU Research Group, Mental Health Center Copenhagen, Copenhagen University Hospital, Mental Health Services CPH, Denmark; Department of Psychology, University of Copenhagen

14:55-15:10	**"Mind the Heart – Emotional and Behavioural Difficulties in Danish Children and Adolescents with Ventricular Septal Defects".** Julie Løye Hejl, MD PhD student, Department of Child and Adolescent Psychiatry, Aarhus University Hospital Psychiatry, Aarhus, Denmark.
15:10-15:25	"**Internet-Cognitive Behavioral Therapy for Pediatric Functional Abdominal Pain: effect and Parental Influence"**. Eva Skovslund Nielsen, Department of Child and Adolescent Psychiatry, Aarhus University Hospital Psychiatry, Denmark; Department of Clinical Medicine, Aarhus University, Denmark
15:25-15:40	**"Validating the Transdiagnostic Self-injury Interview".** Jesper Nørgaard Kjær, Psychosis Research Unit, Aarhus University Hospital, Psychiatry, Aarhus, Denmark, Department of Clinical Medicine, Aarhus University, Aarhus, Denmark
15:40-16:00	**Closing session and award of prize for best presentation and best poster**

Keynote speaker 1

Title:
Effectiveness and costs of stage-based, transdiagnostic CBT versus management as usual for help-seeking youths with emotional and behavioral difficulties: The Mind My Mind trial

Presenter:
Pia Jeppesen, Professor, PhD, head of Research unit, Department of Child and Adolescent Psychiatry Copenhagen University Hospital – Psychiatry Region Zealand & Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

Abstract:

Background:
In recent years, there has been growing attention to the mental health of children and adolescents, fueled by an increase in psychological distress within these age groups. Such distress in childhood is linked to a higher risk of mental and physical illness, increased school absenteeism, incomplete education, and weaker attachment to the labor market in adulthood. Early interventions targeting children and adolescents therefore hold considerable promise for preventing mental disorders.

Method:
Mind My Mind (MMM) was developed and evaluated through a strategic partnership involving TrygFonden, Psykiatrifonden, selected municipal educational–psychological counseling services (PPR), and regional child and adolescent psychiatry. The program is intended as both an indicated prevention and an early treatment strategy for children and adolescents presenting with emotional or behavioral problems. It delivers transdiagnostic, modular cognitive-behavioral therapy in 13 individual sessions with a municipal psychologist. MMM has been tested in a randomized feasibility trial, followed by a randomized controlled effectiveness trial across four municipalities among children aged 6–16 years. Outcomes were measured using questionnaires and national register data 2-4 years after inclusion.

Results:
The lecture presents both primary and secondary trial analyses, including effect modification and cost-effectiveness. In addition, we present previously unpublished long-term follow-up data from the 566 children who were screened and stratified using a stepped-care model, of those, 396 children were randomized to MMM or to treatment as usual.
In recent years, there has been growing attention to the mental health of children and adolescents, fueled by an increase in psychological distress within these age groups. Such distress in childhood is linked to a higher risk of mental and physical illness, increased school absenteeism, incomplete education, and weaker attachment to the labor market in adulthood. Early interventions targeting children and adolescents therefore hold considerable promise for preventing mental disorders.

Keynote speaker 2

Title:
Virtual reality assisted psychotherapy for schizophrenia spectrum disorders: evidence from randomized trials and next-generation studies

Presenter:
Louise Birkedal Glenthøj, DMSc, PhD, Associate Professor, VIRTU Research Group, Mental Health Center Copenhagen, Copenhagen University Hospital, Mental Health Services CPH, Denmark; Department of Psychology, University of Copenhagen

Abstract:
Virtual Reality (VR) provides a controllable, engaging context for symptom-specific psychotherapy in psychosis. This presentation summarizes results from two randomized clinical trials and outlines three ongoing studies from the VIRTU Research Group. The assessor-masked, multicenter **Challenge** trial evaluated immersive avatar-based VR therapy for persistent auditory verbal hallucinations (AVH) versus enhanced treatment as usual in 270 participants. At 12 weeks, Challenge showed a statistically significant, small reduction in PSYRATS-AH (adjusted mean difference -2.26, 95% CI -4.26 to -0.25), with maintained reductions in AVH frequency at 12 and 24 weeks, and an overall favorable safety and acceptability profile (Smith et al., 2025).
The **FaceYourFears** trial compared therapist-guided VR-CBTp for paranoia with standard symptom-specific CBTp in 254 participants. VR-CBTp was not superior to CBTp on the primary endpoint (Green Paranoid Thought Scale, Ideas of Persecution at treatment end), but retention and session completion were high in both arms, supporting the scalability of therapist-guided VR within psychosis services (Jeppesen et al., 2025).
Building on these data, **ENGAGE** (n=30) is a randomized, assessor-blind pilot study targeting negative symptoms, specifically anhedonia and avolition, through VR modules that train social reward learning. Outcomes include feasibility, acceptability, clinical change, fMRI, and ecological momentary assessment to capture day-to-day fluctuations in symptoms and functioning (Donath et al. 2025). The **Neuro-VR** study augments AVH-focused VR therapy with real-time biofeedback to personalize exposure and emotion regulation. This mixed-methods pilot randomizes 30 participants to VR with or without biofeedback, with clinical, EEG, and qualitative endpoints to inform individualization. Preliminary feasibility and acceptability data from ENGAGE and Neuro-VR will be presented (Habla et al, under review).
Finally, the **Challenge 2** study is in development. This pilot RCT (n=50) will compare standard Challenge-VR-therapy with Challenge-VR-therapy plus an AI-supported home "booster," delivered via an LLM-based conversational agent (i.e." Chatbot"). This chatbot will be developed with input from people with lived experience and delivered with therapist oversight, GDPR-compliant infrastructure, and ecological momentary assessement to capture real-world change. Primary outcomes are feasibility, acceptability, and safety, with preliminary effects on AVH severity and functioning.

ABSTRACT FOR ORAL PRESENTATIONS

A nationwide register-based cohort study of substance use disorders and use of somatic health services among patients in forensic psychiatric departments

Morten Deleuran Terkildsen, Senior Researcher, Asst. Professor, Retspsykiatrisk Afdeling, AUHP

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Background: Forensic psychiatric patients (FPS) have reduced life expectancy, often linked to somatic comorbidities and unhealthy lifestyles. While exercise can improve health, participation is hindered by low motivation and restrictive institutional conditions. Virtual cycling (VC) may offer new opportunities but remains underexplored in forensic psychiatry.

Objectives: This study examined how FPS and staff experienced and interacted during a VC intervention in a medium secure ward, and how these interactions may inform the design of more motivating exercise programs.

Methods: Five male inpatients and four physiotherapists participated in eight VC sessions in a ward-based gym. Data included participant observation, informal conversations, and a focus group with eight staff members. Analysis followed a constructivist grounded theory approach.

Results: VC gave rise to four staff–patient interaction types: outcome-focused (goal-oriented), distributive (instructional and leadership-driven), relationship-focused (emotionally supportive), and accommodating (non-demanding, gently motivating). Each type involved distinct motivations and communicative forms, often expressed in micro-moments. Together, they illustrate how staff adapted strategies to patients' diverse needs.

Conclusions: VC interventions may foster patient motivation by creating interactional spaces that support personal recovery in restrictive settings. Staff training in interaction strategies tailored to virtual exercise is recommended. Future research should examine long-term impacts of VC on recovery trajectories.

Efficacy of a Transdiagnostic Sleep and Circadian Intervention for Outpatients With Sleep Problems and Depression, Attention Deficit Disorder, or Bipolar Disorder: A Randomized Controlled Trial

Mette Kragh, Clinical nurse specialist, Department of Affective Disorders

Presenting Author: Mette Kragh

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Background: Patients with mental disorders frequently suffer from sleep disturbances such as insomnia or circadian rhythm disorders, which exacerbate symptoms and reduce quality of life. This trial evaluated the efficacy of a Danish adaptation of a transdiagnostic sleep and circadian intervention combining cognitive behavioural therapy for insomnia (CBT-I) with chronotherapy in outpatients with depression, attention deficit disorder, or bipolar disorder.

Methods: Eighty-eight outpatients with comorbid insomnia or circadian rhythm disorder were randomized to the intervention group (six individual sessions over six weeks) or to a control condition (single session of sleep hygiene education). Primary outcomes were sleep quality and insomnia severity. Secondary outcomes included well-being, personal recovery, work ability, perceived overall health, sleep efficiency, sleep onset latency, wake after sleep onset, nocturnal awakenings, and use of sleep medication. Data were collected through validated questionnaires, actigraphy, and sleep diaries at baseline, week 2, and week 6; actigraphy and diaries were applied continuously throughout the trial.

Results: From baseline to week 6, the intervention group showed significant improvements compared with controls in sleep quality ($p < 0.001$) and insomnia severity ($p < 0.001$). Significant gains were also observed in well-being ($p = 0.002$), personal recovery ($p = 0.037$), work ability ($p < 0.001$), and perceived overall health ($p = 0.004$). No significant between-group differences were found in objective sleep measures derived from actigraphy or diaries.

Conclusions: The transdiagnostic intervention was effective in improving subjective sleep quality and insomnia severity and was associated with broader benefits in well-being, recovery, work ability, and perceived health among psychiatric outpatients. These results indicate that structured sleep-focused interventions can play a valuable role in routine mental health care.

Altered Auditory Processing in Adolescents at Familial and Polygenic Risk for Schizophrenia and Bipolar Disorder

Oskar Jefsen, Postdoc, Psychosis Research Unit

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BACKGROUND: Adolescence is a critical period for the maturation of the brain and the development of psychotic and mood disorders. Auditory oddball responses, including the mismatch negativity (MMN), are impaired in patients with schizophrenia and bipolar, as well as first-degree relatives to patients with SZ.

OBJECTIVES: We aimed to determine the effect of familial and polygenic risk of SZ and BD on auditory oddball processing during adolescence using magnetoencephalography (MEG) and dynamic causal modelling (DCM).

METHODS: We recruited participants enrolled in The Danish High Risk and Resilience Study – VIA15, a nationwide-representative, prospective cohort study. We measured auditory oddball responses in 60 adolescents at familial high risk of SZ (FHR-SZ), 38 adolescents at familial high risk of BD (FHR-BD), and 75 population-based controls (PBC), in a roving oddball paradigm. We compared sensor- and source-level evoked responses and modelled effective connectivity using DCM. We studied the effect of familial risk (FHR-SZ/BD vs. PBC) and polygenic risk for SZ and BD.

RESULTS: Sensor- and source-level analyses revealed intact responses in adolescent at familial high risk of SZ an BD. DCM revealed strong evidence for altered synaptic connectivity during oddball processing on the basis of both high familial and polygenic risk of SZ and BD.

CONCLUSIONS: Computational modelling of auditory responses reveals associations between familial and polygenic risk of SZ and BD and altered synaptic connectivity during auditory oddball processing otherwise undetected in classical analyses.

Mind the Heart – Emotional and Behavioural Difficulties in Danish Children and Adolescents with Ventricular Septal Defects

Julie L Hejl, MD PhD student, Research unit Child and adolescent psychiatry

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The author has declined publication of this abstract

Internet-Cognitive Behavioral Therapy for Pediatric Functional Abdominal Pain: effect and Parental Influence

Eva Skovslund Nielsen, MD, PhD-student, Department of child and adolescents psychiatry, research unit

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The author has declined publication of this abstract

Validating the Transdiagnostic Self-injury Interview

Jesper Nørgaard Kjær, Psychosis Research Unit, Aarhus University Hospital, Psychiatry, Psychiatrist

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Background: Non-suicidal self-injury is the deliberate and self-inflicted damage of body tissue without suicidal intent that causes psychological and physical harm. It occurs across mental disorders and is a major health concern especially in psychiatric settings. The Transdiagnostic Self-injury Interview (TSI) is a measure for NSSI in clinical settings. It assesses onset, frequency, methods, and somatic treatment.

Objectives: The aims are to demonstrate the validity of TSI by investigating criterion validity, clinical correlates, and interrater reliability.

Methods: Recruiting sites were in- and outpatient units at the Department of Psychosis and Department of Affective Disorders, Aarhus University Hospital, Psychiatry. The inclusion criteria were currently undergoing psychiatric treatment; being 8 years of age or older; diagnosed with a mental disorder. The exclusion criteria were mental states that severely interfere with interviewing the patient (e.g. ongoing abuse of psychoactive substances, severe psychosis, severe neurodevelopmental disorders, IQ < 70, dementia). TSI were compared to the Deliberate Self-Harm Inventory, that is a validated 15-item self-report inventory. Validated measures for suicidality, emotional reactivity, depression, anxiety, psychotic symptoms, well-being, functional impairment, and history of trauma were included to examine clinical correlates of TSI.During training the raters individually rated six videos of TSI interviews. ICC had to be >0.60 before the raters could include participants to the study by themselves.

Results: Data collection was completed in August 2025. Data from a total of 397 participants were collected. The participants were mostly female (68 %) and had a mean age of 29.9 years. Approximately half of the participants (49.1 %) had self-harming behavior within the past month and 33.6 % reported self-injury at least once a week. In most cases the injuries did not require somatic treatment. Further results will be presented at the conference.

Conclusion: When validation of TSI has been completed, we expect that it can be implemented nationally and used for early screening of NSSI in psychiatric settings. Improved registration of NSSI will advance register data making it possible to conduct detailed studies on risk factors for life-threatening NSSI behavior, suicide and coercion.

POSTER ABSTRACTS

Detection of Bias in Prediction Models for Clinical Psychiatry based on Data from Electronic Health Records

Sara Kolding, PhD student, Apartment of Affective Disorders

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Machine learning (ML) can uncover patterns in health data to enable early detection and intervention. However, ML models may inherit biases present in the data, thereby risking automation and amplification of these imbalances in clinical practice. Thus, without recognising and addressing bias in ML models, we might, inadvertently, perpetuate disparity in healthcare. This project aims to investigate whether ML models predicting clinical outcomes among patients receiving hospital treatment for mental illness are biased across protected attributes, including age, sex, and ethnicity. The project will use electronic health record (EHR) data from the PSYchiatric Clinical Outcome Prediction (PSYCOP) cohort, which includes almost 120,000 patients from Central Denmark. The exhaustive EHR data enable development of large-scale ML prediction models as well as investigation of multifaceted biases in model predictions and in the dataset. The PSYCOP cohort has been used for developing a series of ML models predicting clinical outcomes, including coercive measures, diagnostic progression, and development of cardiovascular disease. Multiple fairness metrics will be used to quantify discrepancies in model performance across protected attributes, with each metric revealing different aspects of bias. For instance, some metrics assign greater weight to false negatives compared to false positives – a crucial distinction in clinical settings, where the impact of different error types is highly context-specific. This approach allows us to optimise for the most relevant bias measures for each clinical application. Preliminary results will be presented at D3A 3.0.

Coercion in child and adolescent psychiatry. Who is at risk? (CoCAP)

Christina Krogner Caspersen, PhD student, Department of Child and Adolescent Psychiatry, Aarhus University Hospital Psychiatry and Department of Clinical Medicine Aarhus University.

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Background: Each year, children and adolescents are exposed to coercion in Danish child and adolescent psychiatry (CAP) to protect them from harming themselves or others. Many initiatives have been taken to try to reduce the use of coercion, but still, the percentage of young people exposed to coercion is high (22.4%). In 2024, the Danish Government, the Regions, and the Local Government Denmark (KL) entered into a national agreement to reduce the use of coercion in psychiatry by 30% by the year 2030.

Objectives: The overall aim is to provide new knowledge on the characteristics of children and adolescents exposed to coercion in Danish psychiatric hospital settings, identify high-risk groups, and describe long-term outcomes. The Ph.D. project will consist of three register-based studies:-Study 1 aims to systematically describe and analyse characteristics of children and adolescents who experience various types of coercion in terms of psychosocial, socioeconomic, and diagnostic factors e.g., age, sex, family background (e.g. nationality, socioeconomics, social services, health-related matters), psychiatric diagnoses, number and length of admissions.-Study 2 aims to identify characteristics of groups at particular high risk for frequent episodes of coercion.-Study 3 aims to describe and analyse the 5-10 years follow-up of children and adolescents exposed to coercion with regard to education, labour market status, somatic and psychiatric health.

Methods: The studies will be based on data from Danish health, social, and educational registries at The Danish Health Data Authority and Statistics Denmark. All patients under the age of 18 admitted to Danish CAP during the study period (2015-2023) will be included, corresponding to approximately 8.000 unique patients. Cases are those exposed to coercion, corresponding to approximately 300 patients yearly.

Results: The initial results are expected to be available by the end of 2025.Perspectives:This research project addresses a critical gap in the existing literature, aiming to provide a nuanced understanding of risk factors for coercion for children and adolescents admitted to CAP. This information is highly needed to support the development and implementation of preventive strategies and interventions.

Organizational and Patient-Related Courses of Restrictive Practices: A Comparative Study of Forensic and General Psychiatry

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Background: Because restrictive practices damage the therapeutic relationship between patients and healthcare professionals and limit patient autonomy and freedom, their use is widely regarded as a measure of last resort. Nevertheless, they are frequently employed in both forensic and general psychiatric settings. While both organizational and patient-related factors influence the use of such interventions, previous research has primarily focused on patient characteristics. Several factors commonly observed in forensic populations, such as substance use, previous violent behaviour, and earlier exposure to restrictive practices, have been identified as associated with an increased risk. However, the influence of organizational factors remains underexplored, and to our knowledge, no studies have examined whether being a forensic psychiatric patient independently increases the risk of being subjected to restrictive practices.

Aim: This study aims to examine how organizational differences between forensic and general psychiatric settings influence the ordination of restrictive practices, and to determine whether being a forensic psychiatric patient independently increases the risk of being subjected to restrictive practices.

Methods: This register-based, retrospective, observational study includes all forensic and general psychiatric patients regardless of age, hospitalized at the Central Denmark Region (CDR) over a course of two years. Around 8300 unique patient files will be included. We wish to apply descriptive statistics to quantify both organizational and patient-related risk factors when prescribing restrictive practices and examine the impact of being a forensic psychiatric patient as an individual risk factor for being subjected to restrictive practices via a linear regression model. Data from the Business Intelligence data portal are drawn, which routinely stores data from the Electronic Patient Journal (EPJ). Statistical analysis aimed to explore patient demographics, restrictive practices and dates on hospitalization and discharge will be conducted.

Results: We do not have results to present yet. Ongoing work/conclusion: We cannot draw any conclusion yet, but we believe the knowledge of organizational factors and whether the

status of being a forensic patient itself increases the risk of coercion, can positively influence the resource allocation, improve treatment and guidelines and help reduce the use of restrictive practices overall.

A nationwide register-based study of polygenic liability, adverse childhood experiences, and risk for borderline personality disorder

Alisha Hall, PhD student, Department of Affective Disorders, Aarhus University Hospital - Psychiatry

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Borderline personality disorder (BPD) is marked by emotional instability, disturbed self-image, and strained relationships, often accompanied by self-harm. Though its population prevalence is ~1.7%, BPD is overrepresented in psychiatric settings and associated with significant morbidity and stigma. BPD is heritable and polygenic, with genetic overlap with other psychiatric disorders. Adverse childhood experiences (ACEs)—such as maltreatment or parental loss—also increase BPD risk, but the interplay between genetic liability and ACEs remains unclear. This study aims to quantify the influence of polygenic liability for psychiatric disorders and ACEs, as well as their interaction, on BPD risk. We use the Danish iPSYCH2015 case-cohort sample, a genotyped population-based cohort of 141,265 individuals born in Denmark (1981–2008), including ~7,000 diagnosed BPD cases treated in psychiatric hospitals by 2019. These cases include individuals with and without co-occurring lifetime diagnoses of schizophrenia spectrum disorders, affective disorders, autism, ADHD, and postpartum psychiatric disorders. We will examine genetic liability and ACEs as joint risk factors for BPD onset after age 15, using inverse probability weighting to account for sampling design. Polygenic scores for BPD, major depressive disorder, bipolar disorder, schizophrenia, ADHD, and autism will be calculated using LDpred2. ACEs will be derived from national registers and operationalized as a time-varying count variable, including childhood maltreatment, severe somatic illness (self or close relative), death of a close relative, parental unemployment due to disability, and family disruption. Hazard ratios with 95% confidence intervals will be estimated, adjusting for sex, birth year, diagnosis year, genotyping platform, and genetic principal components. We will assess main and interaction effects of genetic liability and ACEs on BPD risk, including sex-specific analyses. This study will clarify how genetic and environmental factors jointly contribute to BPD treated in secondary care.

Neuroinflammatory and neuroplasticity biomarkers in multiple sclerosis-associated depression

Yevgeniya Lekomtseva, postdoc, Translational Neuropsychiatry Unit, Department of Clinical Medicine

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Background: MS is a leading cause of neurological disability in young adults and imposes substantial personal and societal burden (Niakosari et al., 2025). Depression is highly prevalent in MS, with lifetime risk estimates exceeding 60% and point prevalences commonly reported between ~25% and ~35% (Marrie et al., 2023; Feinstein, 2011; Boeschoten et al., 2017). Depression in MS is not only a reaction to disability: it can occur early in the disease, exacerbates functional decline, and contributes to excess mortality; suicidal ideation has been reported at markedly higher rates than in the general population (Strupp et al., 2016). Robust meta-analytic data implicates immune activation in depressive disorders: patients with major depression show elevated peripheral pro-inflammatory cytokines, notably IL-6 and TNF-α (Köhler et al., 2017; Haapakoski et al., 2016).

Aim: These observations underscore the need for objective tools to identify at-risk patients and to monitor disease-related mood symptoms.

Methods: We performed an analysis of studies published in peer-reviewed journals searched in the PubMed, Embase, and Web of Science databases (2007-2025).

Results: In the MS context, inflammatory disease activity co-varies with mood burden, supporting the hypothesis that neuroinflammatory cascades contribute to depressive symptoms in susceptible patients. Anti-inflammatory strategies such as acetylsalicylic acid augmentation or cyclo-oxygenase inhibition can accelerate or enhance antidepressant effects in some patients. In major depression, serum BDNF is frequently reduced and tends to normalize with effective treatment, with promising diagnostic performance in distinguishing depressed from non-depressed individuals. In MS, BDNF is implicated in neuroinflammation, neuroprotection, and remyelination, although peripheral BDNF findings are inconsistent across disease stages and cohorts.

Conclusion: Taken together, converging evidence suggests that integrating inflammatory and neurotrophic markers could improve detection and characterization of MS-associated

depression. A pragmatic, blood-based biomarker panel-grounded in cytokine-BDNF biology could help screen, stratify, and monitor patients in routine practice.

Theory of mind and the association with psychotic experiences in 11-year-old children at familial high-risk of schizophrenia or bipolar disorder and population-based controls: The Danish High Risk and Resilience Study, VIA 11

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Background: Impairments in theory of mind (ToM), referring to the ability to infer and predict other people's mental states, is well-documented across the different illness states in schizophrenia and bipolar disorder. Meta-analytic evidence indicates that ToM impairments are also evident in their adult first-degree relatives, suggesting that ToM impairments may be an endophenotypic vulnerability marker. Furthermore, previous studies from the general population have identified significant associations between ToM and psychotic experiences, and it has been suggested that ToM impairments may play an important role in the risk trajectories of developing psychosis. Nevertheless, studies of ToM in young first-degree relatives of individuals with schizophrenia or bipolar disorder are sparse, and the relation between ToM impairments and psychotic experiences has not previously been studied in children at familial high-risk of either disorder.

Objectives: We aimed to investigate ToM in children at familial high-risk of schizophrenia (FHR-SZ) or bipolar disorder (FHR-BP) and population-based controls (PBCs) and to examine the association between ToM and psychotic experiences.

Methods: This study is part of the first follow-up of The Danish High Risk and Resilience Study, a cohort study of same-aged children at FHR-SZ or FHR-BP and PBCs. At first follow-up, a total number of 465 11-year-old children (FHR-SZ, n = 179; FHR-BP, n = 105; PBCs, n = 181) participated, equalling a retention rate of 89 %. ToM was assessed with the Storybook Frederik, which is an age-appropriate ToM task, and PE were measured using the psychosis supplement in the Kiddie Schedule for Affective Disorders and Schizophrenia – Present and Lifetime version.

Results: Results are under preparation but will be ready for presentation at the Psychiatric Research Day 2025. Conclusion: The results from the current study may add important knowledge of ToM abilities in children at FHR-SZ or FHR-BP and PBCs at an early developmental stage, nuancing our understanding of ToM impairments as a potential endophenotypic vulnerability marker. Additionally, the results may add important knowledge about some of the underlying mechanisms of the risk of developing psychosis.

Antipsychotic Use During Pregnancy and Risk of Obstetric Complications: A Danish Nationwide Register-Based Cohort Study

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Background: Prescriptions of antipsychotics to pregnant women have increased worldwide, but evidence on pregnancy complications and birth outcomes remains limited due to small sample sizes and mixed findings. Objectives: To evaluate the associations between continued treatment with first-generation antipsychotics (FGs) or second-generation antipsychotics (SGs) during pregnancy and the risk of pregnancy complications and adverse birth outcomes.

Methods: We conducted a population-based cohort study using Danish registers, including all pregnancies resulting in liveborn singletons between 2004 and 2022, where the woman filled an antipsychotic prescription from one year to 30 days prior to conception. Pregnant women were classified as continuers if they filled prescriptions exclusively for either FGs or SGs from 30 days before pregnancy to 20 gestational weeks (for pregnancy complications) or throughout pregnancy (for adverse birth outcomes). Women who did not fill any prescriptions for antipsychotics during pregnancy (discontinuers) served as the comparison. SGs were further classified into high (olanzapine, quetiapine, clozapine) and low (risperidone, aripiprazole, and ziprasidone) metabolic risk groups. We estimated adjusted odds ratios (OR) using generalized estimating equations, adjusting for confounders, including pre-pregnancy BMI and psychiatric history.

Results: Among 9,583 liveborn singleton pregnancies, 453 (4.7%) were exclusively exposed to FGs and 2,219 (23.2%) to SGs. There was no difference in risk of gestational diabetes between continuers and discontinuers for either antipsychotic class (FGs: OR = 0.91 [0.56–1.47]; SGs: OR = 1.19 [0.96–1.48]), nor for gestational hypertensive disorders (FGs: OR = 1.00 [0.60–1.71]; SGs: OR = 1.20 [0.97–1.48]). A marginally increased risk was observed for high–metabolic-risk SGs (gestational diabetes: OR = 1.26 [0.98–1.62]; gestational hypertensive disorders: OR = 1.26 [0.99–1.59]). Preterm birth was less common among children of SG continuers compared to discontinuers (OR = 0.77 [0.64–0.93]), with similar findings for high-metabolic-risk SGs; no difference was seen for FGs (OR = 1.13 [0.80–1.60]). Neonatal intensive care unit admission was more frequent among children of FG continuers (OR = 1.28 [1.01–1.62]), but not for SGs (OR = 0.87 [0.73–1.03]). Birth weight was higher among children of SG continuers compared to those of discontinuers (mean difference: 40 g [5.74–73.94]); no difference was found for FG.

Abstract #14
Psychiatry Research Day 2025

Quantifying the Genetic Confounding on The Comorbidity Within Mental Disorders

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Background: Comorbidity among mental disorders is pervasive. However, whether these associations reflect causal effects is difficult to determine, as confounding by genetic liability may be a contributing factor. This study systematically investigated the role of genetic susceptibility across 30 pairs of comorbid mental disorders and further quantified the extent of genetic confounding for each specific disorder pair.

Methods: Using data from the iPSYCH2015 case-cohort, polygenic scores (PGS) were calculated for six disorders—autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), schizophrenia spectrum disorder (SCZ), bipolar disorder (BPD), major depressive disorder (MDD), and anorexia nervosa (ANO). Weighted time-to-event models, including Cox regression and Aalen's additive hazards models, were applied.

Results: Among 107,992 individuals with genotyping data, significant phenotypic associations were observed in 22 disorder pairs on both multiplicative and additive scales. SCZ, MDD, and ADHD were more likely to be comorbid with other mental disorders. Confounding explained by PGS of the prior disorder ranged 0.42% (ADHD–SCZ) to 3.28% (MDD–ASD), while that of the later disorder ranged −5.50% (ASD–ANO) to 10.09% (ADHD–MDD). Largest disorder-specific PGS contributions were: ASD in ASD–SCZ (1.48%), ADHD in ADHD–MDD (1.02%), SCZ in ASD–SCZ (2.59%), BPD in ADHD–BPD (2.18%), MDD in ADHD–MDD (10.09%), and ANO in ASD–ANO (−5.50%).

Conclusions: The findings suggest that the comorbidity within mental disorders may be partially explained by genetic risk for both preceding and subsequent disorders. The extent of genetic confounding varied across specific pairs of comorbid mental disorders. Greater genetic confounding is observed between neurodevelopmental disorders (i.e., ASD and ADHD) and severe mental illness (i.e., MDD, BPD, and SCZ).

Study protocol: My Symptoms Young – a new internet-based programme for young people with persistent physical symptoms in primary care. Exploration of the effect and health literacy characteristics among users

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Introduction: Young people with persistent physical symptoms (PPS), such as pain and fatigue, not explained by a well-defined disease, are common across healthcare settings. These symptoms may lead to school absence, social withdrawal, high healthcare utilization, and risk of chronicity. The eHealth programme My Symptoms Young is an early self-help intervention developed for young people with PPS in primary care. Health literacy (HL) and eHealth literacy (eHL) of the young people - their ability to access, obtain, and understand health information - will be essential for active engagement with and benefit from My Symptoms Young.

Methods: This open pilot study will test the preliminary effects of My Symptoms Young in young people aged 15-25 years with PPS. We will include 62 participants, who will receive questionnaires at baseline, post-treatment, and at a 3-month follow-up. Primary outcomes are symptom intensity and symptom interference with daily activities. Secondary outcomes include physical symptom burden, psycho-behavioral features, health-related quality of life, and patient satisfaction with the programme. HL and eHL measures at baseline will be explored as potential moderators of effect.

Results: Data collection is ongoing. At the conference, we will present core intervention elements and the study procedure. Conclusion Early intervention of PPS is essential to prevent worsening. This project will provide initial insights into the effects of My Symptoms Young and the potential impact of HL and eHL on outcomes. Findings will be crucial for the further implementation of My Symptoms Young in primary care, where evidence-based treatment options remain limited.

Participation across the three cancer screening programmes in Denmark among women with mental disorders: A population-based cohort study

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Background: The participation in each cancer screening programme is lower among individuals with mental disorders; however, less is known about participation across the cancer screening programmes. We examined the participation across cervical, breast and colorectal cancer screening among women with mental disorders compared to women without mental disorders in Denmark.

Methods: A cohort study was conducted including women aged 53-65 years old in Denmark. Mental disorders were categorised as 1) no mental disorder, 2) general practitioner (GP) based care, 3) private practice psychiatrist care and 4) hospital-based care. Participation in cervical, breast and/or colorectal cancer screening was measured as participation in 0, 1, 2 or 3 programmes. Using a multinomial logistic regression, we calculated relative risk ratios and 95% confidence intervals of participation in 0, 1 or 2 relative to 3 cancer screening programmes among women with mental disorders compared to women without mental disorders.

Results: Altogether, 445,738 women were included. In total, 57.4% of women with no mental disorder, 50.4% of women in GP-based care, 48.9% of women in private practice psychiatrist care and 39.5% of women in hospital-based care participated in three cancer screening programmes. The risk ratio of participating in 0, 1 or 2 relative to 3 cancer screening programmes was increased among women with mental disorders compared to women without mental disorders.

Conclusion: Women with mental disorders participated less often in all three cancer screening programmes than women without mental disorders. Studies are needed to better understand barriers to cancer screening among women with mental disorders.

Predicting Clinical Outcomes for Patients with Mental Illness using Notes from Electronic Health Records

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In recent years, our group has investigated the feasibility of developing machine learning (ML) algorithms trained on electronic health records (EHRs) from patients with mental illness designed for real-world clinical implementation. Our projects aim to identify patients at risk of experiencing adverse outcomes. Accurate predictions may enabe timely interventions and potentially prevent the outcomes.Through this work, we have uniquely developed a catalogue of ML models capable of predicting a range of different outcomes using preprocessed free-text clinical notes. These include prediction of restraint, involuntary admissions, and initiation of electroconvulsive therapy (ECT), with promising preliminary results.This study investigates the pitfalls, benefits, and potential of various natural language processing (NLP) approaches for outcome prediction using free-text clinical notes. Specifically, we compare the predictive performance of models across a spectrum of complexity:1.Classifiers (e.g., XGBoost) trained on feature vectors based on the term frequency of predefined psychopathology-related words2.Classifiers trained on TF-IDF-derived feature vectors3.Classifiers trained on embeddings from a state-of-the-art (SOTA) off-the-shelf embedding model4.Classifiers trained on embeddings from a SOTA embedding model fine-tuned on the clinical outcome prediction tasks5.Prompt-based classification using SOTA large language models, including both general-purpose and healthcare-specific models.This study aims to deepen our understanding of the value and feasibility of utilizing free-text clinical notes for predictive healthcare models, ultimately contributing to their integration in clinical practice.

The Right Bed for The Right Patient: Application of a Structured Professional Judgement Tool to an Unstructured Clinical Decision

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Background: Forensic psychiatric services must balance patient care with public safety, making the allocation of patients to the correct level of therapeutic security essential. In Denmark, forensic patients are frequently treated in general psychiatric services, usually on an outpatient basis, rather than in specialised forensic hospitals. This raises concerns about risk management and placement decisions. Despite near tripling of mentally disordered offenders in recent decades, empirical knowledge on patient allocation across security levels remains scarce. Current placement decisions largely rely on unstructured clinical judgement, which risks inappropriate levels of restriction. The DUNDRUM Toolkit is an internationally validated Structured Professional Judgement instrument, designed to support evidence-based allocation of patients to the appropriate level of safe and secure treatment.

Objectives: The study aims to examine the degree of congruence between DUNDRUM ratings and current security level, categorised as correct, excessive, or insufficient restriction. We hypothesise that specialised forensic psychiatric wards will contain a significantly higher number of patients placed at higher levels of security than indicated by DUNDRUM.

Methods: This study applies the DUNDRUM Toolkit to forensic psychiatric patients (n=500) in specialised forensic psychiatric wards and in general psychiatric wards in the Central Denmark Region. Variables including demographic, clinical, and offending history will be extracted, and patients rated with DUNDRUM-1 at treatment initiation and DUNDRUM-3/4 during their sentence. Interrater reliability will be assessed, and Receiver Operating Curve analysis will evaluate the predictive validity of Dundrum ratings compared with actual clinical placements. Perspectives This is the first systematic application of the DUNDRUM Toolkit in Denmark, and findings will provide crucial insight into the alignment between patient needs and placement decisions. Results will inform national policy, improve transparency, and support more proportionate allocation of therapeutic security, thereby enhancing both patient outcomes and resource use.

Abstract #19
Psychiatry Research Day 2025

How common are postpartum depressive thoughts and feelings? Item-level distribution of population-based screening records

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Background: While 17% of new mothers experience symptoms of postpartum depression (PPD), emotional distress is more widespread in the postpartum period. Objective: This descriptive study described item-level responses on the Edinburgh Postnatal Depression Scale (EPDS) to better understand common postpartum experiences.

Methods: We analyzed EPDS data from 170,218 childbirths (2015-2021) in the Danish HOPE cohort collected during routine postpartum visits. We described the distribution of responses to each item and total scores.

Results: Most mothers reported mild or no symptoms. Items on self-blame, anxiety, and feeling overwhelmed showed large variation. Self-harm thoughts were rare (1.7%). The median total score was 4 (IQR 2-7); 7.8% scored ≥11, indicating possible PPD.

Conclusion: Diverse emotional responses are common postpartum and often reflect normal adjustment. Item-level insights may help reduce stigma and support open dialogue around maternal mental health.

Epilepsy and educational outcomes: A Nationwide Cohort Study in Denmark

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Background: Children with epilepsy are thought to be at increased risk of academic difficulties, even when they have normal intelligence and no other major comorbidities. In this study, we explored associations between childhood epilepsy and educational outcomes later in life.

Method: We carried out a register-based nation-wide cohort study of all children born in Denmark 1987-2005 who resided in Denmark on their 15th birthday. Data from population and health registers were utilized to identify children with epilepsy, including psychiatric comorbidities. Educational outcomes included 1) not completing elementary school before age 17, 2) average score in 9th grade final exams, and 3) highest educational attainment at specific ages from age 15 to 35 years. The associations of epilepsy with these outcomes were estimated using logistic and linear regression models, adjusted for relevant confounders.

Results: From a population of approximately 1.2 million children, we identified a total of 11,760 (0.98%) children with epilepsy before the age of 15. The mean (SD) age of children at the time of epilepsy diagnosis was 7.2 (4.3) years. Among children with epilepsy, 3180 (27%) had psychiatric comorbidity before the age of 15. Having epilepsy was significantly associated with the risk of not completing elementary school before the age of 17 (11.9% of children with epilepsy vs. 3.8% of children without epilepsy, adjusted OR 2.95, 95% CI: [2.78-3.13]). This association persisted even among children with epilepsy without psychiatric comorbidity (adjusted OR 2.60 [2.41-2.80]), but was more pronounced in those with psychiatric comorbidity (e.g. epilepsy and comorbid intellectual disability adjusted OR= 4.8 [4.3-5.4]). We also found that individuals with childhood epilepsy were less likely to attain higher levels of education later in life.

Conclusion: Children with epilepsy are at increased risk of experiencing poor long-term educational outcomes, and our findings highlight the need for educational support, even when the epilepsy is not complicated by e.g. psychiatric comorbidity.

Abstract #21
Psychiatry Research Day 2025

A macrobiotic approach to ameliorate "chemo-brain" and chemotherapy-induced sickness

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Background: Chemotherapy cause severe sickness and cognitive disturbances (chemo-brain) in up to 75% of the patients receiving this treatment. These adverse effects are believed to be caused in part by an imbalance of pro- and anti-inflammatory cytokines and it has also been shown that the microbiota modulate the efficacy and toxicity of chemotherapy. Parasitic worms (helminths) can reduce inflammation, restore the gut barrier, and beneficially modulate the host microbiota. Molecules derived from the helminth Trichuris spp (TSP) are a novel source of biologic therapies, which directly modulate the immune response and microbiota.

Objectives: The objective of this project is two-fold: 1) to investigate the protective effects of helminth products on chemotherapy-induced sickness and cognitive/psychiatric deficits, and 2) to elucidate the underlying biological mechanisms that are normalized by helminths.Methods: Once weekly for 4 weeks, Sprague-Dawley rats are treated with the chemotherapy drug doxorubicin (DOX) or vehicle and TSP or vehicle. During the treatment the animals are housed in Noldus Phenotyper cages which allow us to record home-cage behaviour. Subsequently, the animals undergo a battery of behavioural tests and tissue is collected. Microbiome, inflammatory markers, and monoamine levels will be examined.

Results: we have shown a protective action of TSP against chemo-induced weightloss, hypolocomotion and memory deficits. Furthermore, we found that TSP reduces inflammatory chemokine expression in the brain.

Conclusions: TSP improved cognitive deficits and other chemotherapy-induced sickness in our animals. If successful, we would be able to resolve the challenges with some of the severe side effects of chemotherapy. Not only would this improve the quality of life of cancer survivors and compliance to treatment, it could potentially also decrease the mortality of chemotherapy-induced side-effects.

Abstract #22
Psychiatry Research Day 2025

Clinical Validation of Patient-Reported Cognitive Assessment Tools for Adverse Effects of Electroconvulsive Therapy in Patients with Unipolar Depression

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Changes in the Characteristics of Children and Adolescents Diagnosed with ADHD or Autism in Denmark, 1994–2022

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Background: The prevalence of mental disorders among children and adolescents has increased worldwide, particularly for attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD). In Denmark, diagnoses of ADHD and ASD have also risen sharply in recent decades, but it remains unclear whether the characteristics of those diagnosed have changed over time.

Methods: We conducted a nationwide register-based study including all individuals born in Denmark between 1994 and 2022 (~1.9 million). ADHD was identified through diagnoses or prescriptions, and ASD through diagnoses. Each case was matched to 10 controls without a diagnosis on sex, birth year, municipality, and country of origin. We used multiple national registers to obtain pre-diagnostic characteristics, including information on perinatal characteristics, childhood adversity, healthcare utilization, parental education, income, and morbidity. Differences between cases and controls were assessed using standardized mean differences across diagnosis years. Additionally, we estimated odds ratios of being diagnosed with ADHD or ASD (combined and separately) according to these pre-diagnostic characteristics.

Results: Preliminary results show that the characteristics of children and adolescents diagnosed with ADHD or ASD became more similar to those of controls over time. Standardized mean differences between cases and controls moved closer to 0 across most characteristics, and the ORs for pre-diagnostic characteristics moved closer to 1, indicating that diagnosed individuals are becoming more similar to their peers without a diagnosis.

Conclusion: The characteristics of Danish children and adolescents diagnosed with ADHD or ASD seem to have shifted over the past three decades, with cases and controls becoming increasingly alike. The findings will help interpret rising diagnostic rates and their implications for health, education, and social outcomes.

Expectations and Outcomes in Cognitive Behavioral Therapy for Pediatric OCD

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Background: Obsessive-compulsive disorder (OCD) in childhood often leads to significant functional impairment and reduced quality of life. Cognitive behavioral therapy (CBT) is the recommended first-line treatment, yet treatment outcomes vary considerably. Treatment expectations and compliance are thought to play a central role in determining outcomes, but evidence among children and adolescents remains limited.

Method: This study was part of NordLOTS and included 269 children and adolescents (aged 7–17) with a DSM-IV diagnosis of OCD. All participants received 14-week manualized CBT. Treatment expectations were assessed early in treatment by patients, parents, and therapists, while compliance was rated by therapists during treatment. Treatment outcome was measured using the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS), with a score ≤15 defined as treatment response.

Results: Patients reporting high treatment expectations at baseline presented with milder OCD symptoms and fewer externalizing problems compared to those with lower expectations. Similarly, higher therapist-rated expectations were associated with lower parent-reported externalizing symptoms. In contrast, parental expectations showed no significant association with symptom severity or treatment response. Across treatment, both patient and therapist high expectations predicted greater symptom reduction, while low expectations were linked to poorer outcomes. Higher expectations were also correlated with greater compliance, particularly among patients.

Conclusion: Findings indicate that patient and therapist treatment expectations are important predictors of treatment success in CBT for pediatric OCD. Actively fostering realistic yet positive expectations through psychoeducation and early engagement may enhance treatment outcomes, while the role of parental expectations warrants further study.

The Region Midt Schizophrenia (RMS) Cohort

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Background: Schizophrenia spectrum disorders (SSD) are severe mental illnesses but knowledge about etiological and prognostic factors remains limited. Adverse childhood experiences (ACEs) are among the most important risk factors, but it is unclear whether their impact is causal or mediated through biological mechanisms.

Objective: We aim to study the role of ACEs in the development and long-term prognosis of SSD's and whether biological measures affect or mediate this potential correlation.

Methods: In 2024 we established recruitment for a prospective cohort with long-term follow-up of patients with a first-episode SSD. Patients are included within three months of diagnosis at one of the psychiatric hospitals in the Central Denmark Region. At baseline and follow-up visits (1, 2, 3, 12 and 24 months; online questionnaires after 2, 6, 10 and 26 weeks), patients undergo clinical interviews (SCAN, PANSS-6, CGI-S, GAF, SIDAS and UKU) and complete self-reported questionnaires (ACE-IQ, ISI, DSHI, the Whiteley-6 checklist and PSQI). Cognition is assessed prospectively with the MCCB. Blood samples are collected at baseline and after 3, 12 and 24 months to enable genetic, epigenetic and omics analyses. Patients receive treatment as clinically indicated. We aim for long-term follow-up of participants after 5, 10 and 20 years.

Results: By September 2025, 100 patients have been enrolled (43% male, 53% female, 4% other; mean age 28 years). Retention rates across follow-up visits are 84.1%, 77.4%, 74.4%, and 80.0% at months 1, 2, 3, and 12, respectively. Completion rates for key assessments

were high: PANSS-6 was completed by 96.8%, 80.1%, 72.6%, 71.8%, and 80.0% at baseline and months 1, 2, 3 and 12, respectively. The ACE-IQ was completed by 78.9%. GAF-F and CGI-S were completed by 100%, 73.1% and 80.0% at baseline and months 3 and 12, respectively. These findings demonstrate the feasibility of long-term follow-up with acceptable retention rates. At the Psychiatry Research Day, we will present initial results from these assessments.

Conclusion: The RMS cohort aims to establish a large, representative, and deep-phenotyped sample of patients with first-episode SSD, leveraging detailed investigations into the etiology and long-term prognosis of SSD by integrating biological, psychological and social factors.

Understanding networks and relatedness – a qualitative study among inpatients in forensic psychiatry

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Background: Recovery-oriented practices in forensic psychiatry increasingly emphasize the role of informal caregivers. Yet little is known about how patients themselves perceive their significant relations during long-term hospitalization. Most studies assume caregivers are biological relatives, leaving other supportive networks underexplored.

Aim: This study explored how forensic psychiatric inpatients describe their relationships and the role these networks play in daily life during hospitalization and recovery.

Methods: We conducted semi-structured interviews with 24 inpatients (21 men, 3 women; mean age 41) at two medium secure forensic psychiatric wards in Denmark. Interviews were supported by sociograms in which participants mapped their social networks, positioning relations according to perceived closeness. Data were analyzed through descriptive mapping of networks and reflexive thematic analysis.

Findings: Across interviews, nearly 200 relationships were identified, most concentrated in categories of very close or distant. Parents and siblings remained central figures, though often marked by rupture. Friends and partners were described as uncertain, and fellow patients as temporary. Notably, staff members were often described as part of the close network, reflecting their consistent role in daily life. These patterns were further explored through three overarching themes: Temporal trajectories showed how patients reflected on past ruptures, described the functions of current relations, and expressed hopes for future connections. Forms of relational presence highlighted the importance of emotional closeness and connections that persisted even without contact, while also revealing ambivalence. Relational dynamics and agency concerned how patients tried to maintain or end relations, navigated institutional constraints, and balanced autonomy with dependence on others.

Conclusion: Networks in forensic psychiatry extend beyond biological kin, encompassing staff, fellow patients, and relations that patients hold on to even without direct or regular contact. These may include memories of loved ones, religious figures, or hopes for future

companionship. Such relations can be fragile yet vital for identity, belonging, and recovery. Clinical practice should map networks to identify who and what matters to patients and support their involvement in rehabilitation.

Supporting a family member with mental illness - Navigating care and challenges

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Background: Informal caregivers are essential in supporting individuals with severe mental illness, yet their experiences are often overlooked. Literature offers limited attention to the complexities of caregiving.

Objectives: This study explores how informal caregiving affects daily life and relationships, focusing on its emotional, practical, and relational complexities.

: As part of a larger survey project, this qualitative study uses in-depth interviews to explore caregivers' everyday lives. The guide was informed by previous literature, survey findings and input from a multi-stakeholder advisory board. Data were analyzed using reflexive thematic analysis, following Braun and Clarke's six-phase approach. Initial coding was done collaboratively on two interviews, refined through discussions, then applied to the remaining data.

Results: 22 informal caregivers of individuals diagnosed with severe mental illness were selected using purposive sampling. Participants included parents, adult siblings, partners, and adult children, with an equal gender distribution. Four themes were identified:1.Hope and Ambivalence in Love: Caregivers experienced enduring love alongside doubt, hope, grief, and fear. Many felt caregiving was a moral responsibility. Central was a common fear for suicide.2.The Duality of Caregiving Responsibility: Caregivers juggled everyday tasks, crises, and emotional support while family roles shifted toward semi-professional caregiving. Caregivers often felt overlooked and unsupported by the healthcare system, leaving them drained and invisible.3.Sacrificing Self for Others: Caregivers often sacrificed their own well-being, losing parts of their identity, social life, and emotional health. Guilt, isolation, and stigma were common, as they struggled to balance their caregiving role with personal needs.4.Seeking Spaces for Recovery and Respite: Caregivers sought ways to preserve their well-being, through small daily moments of relief, work, or outside commitments. Contributing to a sense of normalcy and providing necessary pauses.

Conclusion: Caregiving for a family member with severe mental illness is not just a practical task but a deeply relational and existential defining condition. It is morally grounded and emotionally layered, shaped by love, shifting relational boundaries, and efforts to find relief

and meaning. These findings highlight the need for inclusive support systems that reflect the realities of caregiving.

Recovery in Telling Life Stories (RETELL): Development and pilot study of a narrative identity intervention to support personal recovery in severe mental illness

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Background and objectives: Personal recovery is increasingly emphasized in mental health care and by service users. Identity is an important dimension of recovery, and (re)constructing life narratives is an approach to helping individuals connect their experiences with meaning, purpose, and value. Structured, evidence-based interventions targeting identity-related aspects of personal recovery remain few. We are currently developing Recovery in Telling Life Stories (RETELL), a narrative identity intervention designed to support personal recovery in individuals with severe mental illness.

Methods: The development process comprised three stages: conceptualization, stakeholder feedback and piloting. Stakeholder panels included persons with lived experience of severe mental illness (n=9), mental health professionals (n=3), and international experts in narrative therapy, personal recovery, and intervention development (n=2). The resulting intervention consists of 12 individual sessions structured around four key tasks of narrative repair. To examine feasibility and inform refinement, RETELL was piloted in a case study using an A-B-A design with repeated outcome assessments of personal recovery (Brief INSPIRE-O) and well-being (WHO-5), alongside measures of therapeutic alliance (Session Rating Scale, SRS) and treatment satisfaction (Client Satisfaction Questionnaire, CSQ). A qualitative interview at post-intervention further explored the participant's experiences.

Results: Piloting indicated good feasibility and acceptability. No adverse events occurred, satisfaction with treatment was very high (CSQ = 31; mean SRS = 36.8), and mean self-

reported recovery and well-being increased by 42% and 45%, respectively, from baseline to post-intervention follow-up. The participant described meaningful changes in self-understanding and perspective, stating the intervention had "…changed something – the way I think, how I view myself, and how I view my life.

Conclusions: Findings suggest RETELL to be a promising and feasible intervention with the potential to enhance personal recovery and well-being. Insights from this pilot will guide refinement of the intervention manual before more extensive feasibility testing and future trials, contributing to the growing evidence base for recovery-oriented interventions in psychiatry.

Cognitive Development in Youth at Familial High-Risk of Schizophrenia or Bipolar Disorder: From 7 to 19 Years of Age

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Background: Schizophrenia (SZ) and bipolar disorder (BP) are associated with cognitive deficits and abnormal brain structure. Deficits are evident prior to illness onset of SZ, while evidence on premorbid cognition in BP is mixed. SZ and BP are heritable, and offspring at familial high-risk (FHR) of SZ or BP have an increased risk of developing mental disorders. Thus, studies of FHR offer exploration of developmental pathways of mental disorders and risk markers.Cognitive deficits and brain abnormalities have been identified at various ages in individuals at FHR of SZ or BP. Previous results from the current cohort showed that compared with population-based controls (PBC), offspring at FHR of SZ (FHR-SZ) had stable deficits in multiple cognitive functions and a developmental lag in processing speed from age 7-15, while offspring at FHR of BP (FHR-BP) displayed cognitive functioning comparable to that of PBCs except for a deficit in semantic verbal fluency at age 15. Follow-ups are needed to assess cognitive development in early adulthood.

Objectives: The overall aim of this PhD project is to study cognitive development and its neurobiological underpinnings in same-aged offspring at FHR-SZ or FHR-BP compared with PBC from age 7-19. First, we plan to investigate neurobiological underpinnings of cognitive subgroups in offspring at FHR-SZ or FHR-BP at age 11. Second, we plan to assess developmental trajectories in performance- and rating-based measures of specific cognitive functions in offspring at FHR-SZ or FHR-BP compared with PBC from age 7-19. Lastly, we plan to investigate distinct cognitive subgroups and transitions between these from age 7-19.Methods: The Danish High Risk and Resilience Study is a longitudinal cohort study of 522 offspring (FHR-SZ, n=202; FHR-BP, n=120; PBC, n=200) assessed at age 7, 11, and 15, and currently assessed again at age 19. At age 11, the offspring underwent magnetic resonance imaging of the whole brain. At all ages, cognitive functioning was assessed using performance- and rating-based, validated, and age-appropriate instruments.

Results: Data collection is ongoing.

Conclusion: Results from this PhD study will provide insights into shared and distinct risk markers, inform monitoring strategies and preventive interventions to improve functioning, quality of life, and hopefully reduce the risk of transition to mental illness.

Development of mental disorders from childhood to early adulthood in offspring of parents with schizophrenia or bipolar disorder – the Danish High Risk and Resilience Study, VIA 19

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Background: Schizophrenia (SZ) and bipolar disorder (BP) are severe mental disorders, and offspring of parents with severe mental disorders have an increased risk of developing mental disorders themselves. The strongest known risk factor for developing SZ and BP is a first-degree relative with SZ or BP. SZ and BP are heritable, influenced by genetic and environmental factors, and studying children at familial high risk (FHR) offers a unique possibility to explore the developmental pathways leading to severe mental disorders. Results from previous assessments of the Danish High Risk and Resilience Study (VIA) show elevated prevalence of mental disorders among offspring at FHR of SZ and BP at age 7 (VIA 7), and at age 11 (VIA 11). Preliminary results from age 15 (VIA 15) show higher prevalence and lifetime cumulative incidences of mental disorders and psychiatric comorbidity in adolescents at FHR of SZ and BP compared to the population-based controls. These results suggest that early vulnerability in children at FHR remains stable through childhood and adolescence. Follow-up studies are needed to determine whether this pattern continues into young adulthood. ObjectivesWe aim to assess the prevalence and cumulative incidences of mental disorders and psychiatric comorbidity among young adults at FHR of SZ or BP by age 19, as well as the between-group differences in development of mental disorders from age 7, 11, and 15 to age 19. Methods The VIA population-based cohort comprise 522 children born to parents with SZ (n = 202), BP (n = 120), or neither of these disorders (n = 200).Psychopathology is assessed using the gold standard diagnostic interview, Schedules for Clinical Assessment in Neuropsychiatry, conducted by trained professionals blinded to parental illness. Diagnoses are confirmed in consensus meetings by specialists in psychiatry.

Results: Data collection is ongoing and will be finalized in summer 2027.

Conclusion: Improving our understanding of how mental disorders evolve is vital for early identification and intervention, and thereby for long-term outcomes.

More than caregivers: Diverse networks in the lives of forensic psychiatric patients

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Background: Forensic psychiatry increasingly emphasises recovery-oriented care, where social relations and networks are considered vital to rehabilitation. Research has primarily focused on the burden and support needs of immediate family caregivers, leaving limited knowledge about the broader networks that patients themselves identify as significant. This study aimed to explore how diverse network members experience and navigate their role in relation to forensic psychiatric patients.

Methods: We conducted 20 qualitative interviews with parents, siblings, extended family, friends, and professional relations identified either by patients or through open recruitment. Interviews were thematically analysed to capture patterns in how participants understood and managed their role as part of a forensic psychiatric network.

Results: We found that among the diverse networks surrounding patients, four interrelated themes captured how members understood and managed their roles:• Insisting on normality and human value was expressed through resisting the reduction of the patient to illness or offence.• Balancing guilt, sorrow, and care involved contextualising the offence while also protecting themselves and their families.• Relief and fear characterised admission as a form of temporary safety, yet accompanied by uncertainty about the future.• Strained collaboration with the system reflected appreciation when staff recognised the person behind the offence, but also frequent experiences of exclusion.However, these themes were not experienced uniformly. Rather, the form, meaning and weight of each depended on the relational role and herein positional experiences of the network member.

Conclusion: Network members experienced their role as both meaningful and burdensome. While they sought to support the patient, they also navigated stigma, ambivalence, and strained relations with the system. The findings highlight the need for broader involvement strategies in forensic psychiatry that move beyond immediate family and acknowledge the diverse relations contributing to patient recovery while safeguarding the well-being of significant others.

Acute effects of a single subanesthetic dose of S-ketamine on GPR6 density in genetic models of depression

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BACKGROUND: Major depressive disorder is a leading cause of disability worldwide and remains difficult to treat, with high rates of treatment resistance and relapse. These limitations highlight an urgent need for novel molecular targets and mechanistically distinct antidepressant strategies. One such candidate is G protein–coupled receptor 6 (GPR6), an orphan receptor highly enriched in D2-expressing medium spiny neurons (D2-MSNs) of the striatum, a brain region implicated in mood regulation, reward processing, and motor control. The selective GPR6 inverse agonist, CVN424, is currently in clinical trials for Parkinson's disease; however, the role of GPR6 in the neurobiology of depression remains unknown.

OBJECTIVES: In this study, we examined whether a single subanesthetic dose of the rapid-acting antidepressant S-ketamine can acutely modulate GPR6 density in the rat brain.

METHODS: We used two established genetic rodent models of depression – the Wistar Kyoto (WK) and the Flinders Sensitive Line (FSL) rats– alongside Sprague Dawley (SD) rats as a control group. Animals received either S-ketamine (15 mg/kg i.p.) or saline, and brains were collected one hour post-injection. Regional GPR6 density was quantified by autoradiography using the novel radioligand [3H]CVN424. To further explore potential mechanisms, protein levels of GPR6, as well as synaptic and neuroinflammatory proteins were analyzed in parallel by Western blotting.

RESULTS: Here, we report that acute S-ketamine reduced striatal GPR6 density in depressive-like WK and FSL rats as well as in healthy SD rats compared to saline-injected rats.

CONCLUSION: These findings provide the first evidence that striatal GPR6 expression is rapidly modulated by S-ketamine. By linking GPR6 to depression and to the acute actions of a rapid-acting antidepressant, our work highlights GPR6 as a promising molecular target for future therapeutic development.

Co-design of an App-Based Compassion Focused Intervention for Parents of Children with Mental Health Problems: A Study Protocol

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Background: Parents of children referred to Child and Adolescent Mental Health Services (CAMHS) often experience high parental stress, while also facing uncertainty about what support they will receive. This can contribute to shame, self-criticism, emotional exhaustion, and, in severe cases, burnout. Delays in accessing assessment and treatment further exacerbate these difficulties. Currently, accessible, evidence-based support for parents in contact with CAMHS is limited. Compassion Focused Therapy (CFT) has shown promise in reducing parental self-criticism and their child's emotional difficulties. The overarching aim of this project is to develop and evaluate a scalable and accessible app-based CFT intervention for parents in contact with CAMHS, with the goal to lower the risk of parental burnout. This study protocol describes the co-design of the Hand in Hand app together with parents of children with current or prior contact with CAMHS.

Methods: The app will be developed through an iterative co-design process integrating parental perspectives with clinical expertise. First, a semi-structured group interview with eight parents of children with diverse mental health difficulties will identify core needs. Next, participatory workshops will be conducted to refine app content, features, and design in collaboration between parents and professionals. Finally, usability will be evaluated through a think-aloud protocol to assess navigation and engagement.A multidisciplinary team of CFT specialists, child and adolescent psychiatrists, and CAMHS psychologists will ensure theoretical grounding in CFT while tailoring the intervention to parental realities. All sessions will be transcribed and systematically analyzed to determine how input can shape the final product.

Results: Full data collection is expected to be finalized by December 2025. At the Psychiatry Research Day, we will present the findings from the first part of the iterative co-design process. Conclusion/perspectives: The study will examine how parental perspectives shape the design and usability of a digital CFT intervention. It will also provide feasibility data on engagement and preliminary effects on parental well-being, family functioning, and child outcomes.

The relationship between sexual dysfunction, psychopathology, and side effects of psychotropics among individuals with schizophrenia

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Background: Schizophrenia is a severe mental disorder frequently associated with sexual dysfunction, which negatively affects quality of life, treatment adherence, and clinical outcomes. Sexual dysfunction may arise from both the illness itself—such as sexual delusions and social withdrawal—and the side effects of psychotropic drugs, particularly prolactin-raising antipsychotics. Despite its impact, sexual dysfunction is often overlooked in psychiatric care.This mixed-methods study aimed to examine the relationship between sexual dysfunction and (i) clinician-rated core symptoms of schizophrenia, (ii) clinician-rated and self-reported psychotropic side effects, (iii) self-reported traumas, and (iv) mental well-being. Furthermore, the study explored how patients experience the clinical assessment and management of sexual dysfunction in psychiatric care.

Method: This study included in- and outpatients diagnosed with schizophrenia (ICD-10: F20.x). Quantitative data were collected using validated patient-reported outcome measures: the Patient-Reported Outcomes Measurement Information System (PROMIS), the World Health Organization-Five Well-Being Index (WHO-5), the Aarhus Side effect Assessment Questionnaire (ASAQ), and the Trauma History Questionnaire (THQ). Clinician-rated assessments included the 6-item version of the Positive and Negative Syndrome Scale (PANSS-6), and the Udvalg for Kliniske Undersøgelser Side Effect Rating Scale (UKU). Quantitative analyses comprised descriptive statistics, intraclass correlation coefficients, Spearman's rank correlation, and logistic regression. In addition, semi-structured interviews investigated the timing, nature, and perceived management of symptoms of sexual dysfunction. All interviews were audio recorded, transcribed, and analyzed thematically to capture patient perspectives and contextualize quantitative findings.

Results: Analyses are ongoing, and preliminary findings will be presented at the Psychiatric Research Day 2025.ConclusionsBy combining quantitative assessments with qualitative insights, this study provides a comprehensive understanding of sexual dysfunction in schizophrenia, its associations with symptoms and treatment side effects, and the challenges of addressing these issues in clinical practice.

Use of sleep-promoting drugs in patients with severe mental illness from 2005-23 in Denmark: a nationwide drug utilization study

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Background: Sleep disturbances are highly prevalent in patients with severe mental illness and are often treated pharmacologically. In the general population, tighter regulation of benzodiazepines and Z-drugs has led to an increase in the use of off-label alternatives for insomnia. It is unclear whether similar trends are seen in patients with severe mental illness, where such drugs may interact with other psychotropics and increase the risk of sedation, cognitive impairment, metabolic disturbances, and dependence.

Methods: Using nationwide prescription registries, we identified all individuals with hospital-based diagnoses of schizophrenia, bipolar disorder, or major depressive disorder between 2005 and 2023. For each year and diagnostic group, we calculated the proportion who filled ≥1 prescription for licensed hypnotics or commonly used off-label alternatives.

Results: From 2005 to 2023, the proportion of patients redeeming prescriptions for any sleep-promoting drug decreased across all three diagnostic groups. In the same period, the annual proportion of users of Z-drugs decreased from 35% to 12% in schizophrenia, from 53% to 20% in bipolar disorder, and from 47% to 15% in major depressive disorder. The proportion of users of low-dose quetiapine (25 mg) increased from 7% to 25% in schizophrenia, from 9% to 41% in bipolar disorder and from 4% to 21% in major depressive disorder.

Conclusion: Over the past two decades, prescribing of sleep-promoting drugs in severe mental illness has mirrored the general population shifting away from benzodiazepines and Z-drugs toward off-label sedative drugs, such as low-dose quetiapine. While reflecting efforts to curb addictive drugs, this trend raises new concerns given the side-effect profile of off-label alternatives. Clearer, evidence-based guidelines are needed to ensure safer and more effective treatment of insomnia in this vulnerable group.

Bodily distress in adolescents of parents with schizophrenia or bipolar disorder – The Danish High Risk and Resilience Study - VIA

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Background: Children at familial high risk (FHR) of schizophrenia, and to a lesser extent, bipolar disorder, show impairments in cognitive, social, and motor functioning, as well as more psychopathology compared to controls. Studying FHR populations is crucial for understanding developmental trajectories and early intervention opportunities. However, knowledge of early risk markers remains limited. A yet underexplored research area concerns bodily distress, defined by persistent somatic symptoms not attributable to a well-defined disease. These symptoms, often referred to as functional somatic symptoms (FSS), frequently cooccur with illness-related worries, i.e. health anxiety. Thus, previous studies on early psychosis development have noted nonspecific somatic complaints, including cenesthetic experiences, that is, altered bodily sensations likely based on abnormal sensory processing. Such symptoms have been linked to poor long-term outcomes, suggesting bodily distress may be an early, overlooked indicator of vulnerability.

Methods: This study is based on the VIA study. The VIA cohort consists of children with no parent, one parent, or both parents diagnosed with schizophrenia or bipolar disorder. FSS were assessed at age 15 using the 25-item Bodily Distress Syndrome checklist (range 0–100; higher = greater symptom load). Participants also rated illness worry during the past year on six items with five-point scales (total 0–24; higher = more worry).Results and

Conclusion: Descriptive statistics will be presented as means. Potential differences in the continuous variables of total FSS and health anxiety, respectively, at age 15 between the three groups will be analysed using linear regression. The distribution of symptoms (both individual and in symptom clusters) and symptom load across the three groups will be displayed graphically and analysed with the approaches described above.

Perspectives: Studying bodily distress in adolescents at FHR may reveal novel early risk markers beyond cognitive, social, and motor domains. These insights could improve the detection of at-risk youth and guide targeted primary prevention strategies.

Study protocol: The CI-CAP Youth project on Cognitive Bias and Interoception in Chronic Abdominal Pain in Youth

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BACKGROUND: Functional abdominal pain disorders (FAPD) and inflammatory bowel diseases (IBD) are increasingly common in youth. Despite differing pathologies, both often lead to chronic abdominal pain which has profound personal impacts, such as social withdrawal, school absences, and a diminished quality of life. Predictive coding models propose that persistent symptoms may arise from how the brain perceives both external stimuli (via cognitive biases) and internal bodily signals (via interoception).AIM: To examine whether cognitive biases (in attention, interpretation, and memory) and altered interoception (altered perception and integration of internal bodily signals) is associated with chronic abdominal pain in youth across disorders.

DESIGN: We will include N = 180 participants aged 8–17: N = 60 with functional abdominal pain disorder (FAPD), N = 60 with inflammatory bowel disease (IBD), and N = 60 healthy controls. Cognitive bias is assessed by the Bias in Youth toward GastroIntestinal related Stimuli (BY-GIS) task using words and pictures. Interoceptive accuracy is measured by the heart rate discrimination task and the respiratory resistance sensitivity task. Fearful responses to harmless interoceptive sensations will be investigated using an abdominal tensing task. Finally, gastric sensitivity is assessed by the water load test II. Questionnaires assess abdominal symptoms, emotional distress, self-perceived interoception, and related parent-reported variables.

PERSPECTIVES: The study excels in a novel design which assesses cognitive bias towards relevant stimuli and altered interoception across constructs (accuracy, sensations, metacognition) and bodily domains (cardiac, respiratory, gastric) in a young clinical sample. Results may inform a transdiagnostic understanding and improve treatments for chronic abdominal pain in youth, while advancing knowledge of brain-body interactions underlying symptom perception.

Gender specific symptomatology of depression in patients with Post Traumatic Stress Disorder: A survey study using conventional and gender specific depression screening tools

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Background: Depression is highly prevalent worldwide. While women are more often diagnosed, men face a substantially higher risk of suicide. Conventional screening tools such as the Major Depression Inventory (MDI) primarily capture internalizing symptoms (sadness, guilt, anhedonia). In contrast, men frequently present with externalizing symptoms (anger, aggression, risk-taking) that may go undetected. The Male Depression Risk Scale (MDRS-22) was designed to address this gap but has been little studied in high-risk clinical populations such as patients with post-traumatic stress disorder (PTSD).

Aim: To validate and compare the psychometric properties of the MDRS-22 with the MDI in patients with PTSD, and to examine associations between trauma exposure, alcohol use, well-being, and depressive symptoms.

Methods: A cross-sectional survey will be conducted among patients with PTSD in the Central Denmark Region. Participants will complete the MDRS-22, the MDI, the International Trauma Questionnaire (ITQ), the Alcohol Use Disorders Identification Test–Consumption (AUDIT-C), and the WHO-5 Well-Being Index. The psychometric properties of the MDRS-22, including reliability and construct validity will be evaluated, with analyses stratified by gender.

Results: The data collection is ongoing, and preliminary results will be presented at the Psychiatric Research Day 2025.Perspectives: We expect the MDRS-22 to demonstrate good internal consistency and construct validity, and to identify depressive symptoms in men that remain undetected by the MDI. Such findings could support the implementation of more gender-sensitive screening approaches, ultimately improving detection and treatment of depression in high-risk clinical populations.

Patient and Clinician Perspectives on Rating Scales in Transcranial Magnetic Stimulation (TMS) Treatment: A Qualitative Study

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Introduction: Clinician-rated scales and patient self-reported measures are increasingly used in psychiatric settings to support individualized treatment by systematically monitoring symptoms and side effects. However, their relevance, frequency, and feasibility in the context of TMS treatment for depression remain underexplored.

Aim: This study aimed to investigate patient and clinician perspectives on the use of rating scales during TMS treatment.

Methods: Ten clinicians with diverse professional roles and ten patients undergoing TMS treatment, recruited from an existing cohort study, were included from Regional Psychiatry Central Jutland and the Department of Affective Disorders at Aarhus University Hospital. As part of the cohort study, patients completed a series of rating instruments including the clinical-reported Hamilton Depression Scale (HAM-D17), Udvalg for Kliniske Undersøgelsers Side Effect Rating Scale (UKU), and Maudsley Staging Method (MSM) and the self-reported Aarhus Side Effect Assessment Questionnaire (ASAQ), World Health Organization-Five Well-Being Index (WHO-5), and the 6-item version of Hamilton Depression Scale (HAM-D6-SR) to evaluate symptoms, side effects, quality of life and the degree of treatment resistance. Semi-structured interviews were conducted, audio-recorded, and transcribed verbatim. Thematic analysis was performed following Braun and Clarke's approach, with themes identified independently by two reviewers and analyzed separately for patients and clinicians, as well as across both groups.

Results: Thematic analysis revealed several consistent themes across both patient and clinician perspectives regarding the use of clinician-rated and self-reported scales during TMS treatment. Overarching themes included patient safety, patient involvement, continuity of care, and clinical integration. While these core themes were shared, variations emerged in the subthemes within and across each group, particularly in relation to the perceived relevance and utility of specific rating instruments.

Perspectives: Understanding how rating scales are experienced by both patients and clinicians can inform their meaningful and feasible implementation in TMS treatment. Insights

from this study may guide future efforts to optimize symptom and side effect monitoring, ultimately enhancing treatment outcomes and patient engagement in psychiatric care.

Targeting the resolution of inflammation to improve the treatment of depression

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Depression is a complex disorder affecting millions, with current antidepressants showing limited efficacy and delayed onset. Low-grade inflammation is consistently associated with depressive symptoms and poor treatment response, with evidence of elevated pro-inflammatory mediators and neuroinflammation. Recent findings suggest that impaired resolution of inflammation, due to dysfunction in specialized pro-resolving mediators (SPMs) such as annexins, resolvins, and lipoxins, may contribute to this imbalance. The role of SPMs in mood regulation and antidepressant response, however, remains unclear.This study tested whether dysregulation of pro-resolving pathways involving α-MSH, Annexin A1 (AnxA1), and glucocorticoid-induced leucine zipper (GILZ) contributes to depressive-like behavior and reduced treatment responsiveness. Male Flinders Sensitive Line (FSL) rats, a model of inflammation-driven depression, were treated with vehicle, ketamine (15 mg/kg, i.p.), or imipramine (15 or 30 mg/kg, i.p.), acutely or for seven days. Behavior was evaluated in the Open Field Test and Forced Swim Test (FST), followed by hippocampal protein analysis (Western blot, ELISA). Targets included AnxA1, FPR2, GILZ, ChemR23, and MC3R.Ketamine and repeated imipramine reduced immobility in the FST (ANOVA: $F_{(6,59)}=7.339$, $p<0.0001$). Immobility was lower in FSL/Ket, FSL/IMI 30, and FSL/IMI 7d vs. FSL/Vehicle, while acute or low-dose imipramine had no effect. FSL/Vehicle rats also showed higher immobility than FRL controls, confirming the depressive-like phenotype.At the molecular level, untreated FSL rats had reduced hippocampal ChemR23 expression, restored by both treatments. Ketamine selectively increased the AnxA1/FPR2 ratio. In FSL/Vehicle rats, AnxA1 and FPR2 correlated positively with immobility. In FSL/Ket, only GILZ remained associated with behavior, while FSL/IMI 7d showed strong intra-pathway correlations but remained distinct from FRL.These findings support that dysregulation of resolution-related signaling, particularly involving AnxA1, FPR2, and GILZ, contributes to depressive-like behavior and influences treatment response. Such pathways may represent promising targets for improving antidepressant efficacy.

Somatic ward rounds among psychiatric inpatients: A chart review

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Background: Individuals with mental disorders have a markedly reduced life expectancy compared with the general population, corresponding to a mortality rate ratio of approximately 2.5 and a loss of 7–11 years of life. Although life expectancy has improved in general, the mortality gap between people with mental disorders and the general population has widened. Somatic comorbidity plays a key role in this disparity. To address this, weekly somatic ward rounds were first introduced in the psychosis ward at Aarhus University Hospital – Psychiatry in 2024 and subsequently expanded to additional wards.

Aim: This study aims to provide a descriptive analysis of psychiatric inpatients undergoing somatic consultations at the ward rounds, focusing on consultation indications, clinical characteristics, and subsequent medical management. In addition, we aim to compare these patients with inpatients not receiving somatic ward rounds.

Methods: A descriptive analysis using data from the Business Intelligence (BI) portal and medical records will be performed. The study population will include patients admitted to psychiatric wards for psychosis (S7/S8, S10) and eating disorders (S6) between January 1st, 2024, and March 15th, 2025. Data will be entered into REDCap for descriptive analyses focusing on clinical findings and management. Secondary analyses will examine differences between inpatients who did and did not receive somatic consultations.

Results: Analyses are ongoing, and preliminary results will be presented at the conference.

Conclusion: The study is expected to provide new insights into somatic comorbidity and its management among psychiatric inpatients, potentially assessing the impact of somatic ward rounds to improve clinical outcomes.

Self-reported developmental psychopathology in youth at familial risk for severe mental illness: analysis across two cohorts

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Background: Severe mental illness (SMI), including major depressive disorder, bipolar disorder, and schizophrenia, is a leading cause of disability worldwide, with its impact often beginning in adolescence and early adulthood. While interventions early in the course of illness have yielded some success, impairment persists. Identifying risk at an earlier stage may improve long-term outcomes. Having a parent with SMI substantially increases an individual's likelihood of developing SMI. Developmental psychopathology in childhood and adolescence is also associated with later onset of SMI. In this study, we examine early markers of developmental psychopathology in youth with familial risk to identify those at high risk for developing SMI.

Objectives: We examine the associations between familial risk and self-reported developmental psychopathology in cohorts enriched with familial risk from Canada and Denmark to investigate the cross-cultural applicability of this method of risk identification. We hypothesize that youth with familial risk for SMI will report increased developmental psychopathology compared to controls in both FORBOW and VIA 15.

Methods: Participants were drawn from the third wave of the Danish High Risk and Resilience Study (VIA 15; n = 394; mean age = 15.9) and from the Families Overcoming Risks and

Building Opportunities for Wellbeing Study (FORBOW; n = 293; mean age = 15.0) in Canada. Developmental psychopathology was assessed using the Youth Experience Tracker Instrument (YETI), a self-report questionnaire. Familial risk status was determined by parent registry diagnosis in VIA 15 and semi-structured diagnostic interview (SCID-5) in FORBOW. Analysis will include total YETI scores as well as subscores indexing affective lability, anxiety, basic symptom, depressive symptoms, sleep troubles, and psychotic-like experiences

Results: Data analysis is ongoing and results will be presented at the poster session.

Conclusion: This work will provide insight into the presence and type of developmental psychopathology experienced by high-risk youth. Our findings may support a scalable method of early risk identification and inform development of targeted preventative interventions.

Clinical Practices Within Psychiatry Following Detection of Incident Diabetes: A Chart Review Study

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Introduction: Individuals with severe mental illness (SMI), including schizophrenia, bipolar disorder, and major depressive disorder, face a markedly reduced life expectancy, partly due to a significantly increased risk of developing type 2 diabetes. This elevated risk is driven by lifestyle factors and adverse metabolic effects of psychotropic medications. Although routine metabolic screening is recommended in psychiatric settings, there is limited evidence on whether appropriate clinical interventions follow the detection of incident diabetes.

Methods: This study utilized electronic health record data (EHR) from the Psychiatric Services of the Central Denmark Region. A random sample of 500 patients with incident diabetes—defined by first psychiatric-ordered blood sample indicating diabetes—was drawn from July 1, 2019 to July 1, 2024. Patients with prevalent diabetes were excluded through ICD-10 codes and medication history. Sociodemographic and clinical data were extracted electronically, and manual EHR review was conducted to assess whether appropriate interventions occurred within three months of diabetes detection.

Results: Analyses are ongoing. Preliminary results will be presented at the Psychiatric Research Day 2025.

Conclusion: This study addresses a critical gap in psychiatric care by evaluating the extent and timeliness of clinical interventions following incident diabetes detection. Findings could inform future strategies to improve integrated care pathways and reduce metabolic and cardiovascular risks among individuals with SMI.

Multi-Omics Integration in a High-Risk Youth Cohort: Exposome-Derived Scores, DNA Methylation, and Brain Connectome for SUD

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Mental disorders often trace back to developmental predisposition shaped by context and time, so pediatric cohorts with deep environmental and biological data are essential to identify risk before symptoms consolidate. Within this frame, Substance Use Disorder is treated as a neurodevelopmental outcome that reflects latent liability together with cumulative exposures across childhood and early adolescence. Our central hypothesis is that greater exposure burden predisposes to later SUD through stress and inflammation linked methylation patterns and through alterations in salience, default mode, and frontoparietal systems detectable prior to diagnosis. We use the Brazilian High Risk Cohort, which includes 2,500 participants for population level phenotypes and an enriched subgroup of 450 adolescents with neuroimaging and whole blood DNA methylation assessed at two ages, approximately 11 years and 17 years, capturing a window before any use and a window after potential initiation. Exposures are harmonized into domains and modeled with elastic net under nested cross validation and strict out of fold predictions to derive an Exposome Risk Protection Score optimized for CBCL. DNA methylation from Illumina EPIC v2, with 936,866 probes, is quality controlled and normalized. Epigenome wide tests, region discovery, and pathway analyses support Methylation Risk Scores anchored to exposure and clinical signals. Resting state fMRI is processed to estimate individual connectivity matrices tested with edge wise models and summarized by network and graph metrics, while structural MRI evaluates cortical thickness, subcortical volumes, and local gyrification index. Data integration will use leakage safe multi stage modeling with modality level feature learning, late fusion, and sparse component methods to quantify added predictive value beyond the exposome and to separate shared and modality specific mechanisms. Longitudinal analyses will apply latent growth and mixed effects models and time ordered mediation from exposure to methylation to brain to SUD. We acknowledge challenges in unifying heterogeneous high dimensional blocks and controlling site and batch effects, and

address them with rigorous harmonization. We expect an interpretable and clinically useful model that improves early SUD risk stratification and highlights candidate biological pathways and networks for prevention in youth.

Self-Harming Patients: Behavior in hospitalization over time

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Quantifying the Genetic Confounding on The Comorbidity Within Mental Disorders

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Background: Comorbidity among mental disorders is pervasive. However, whether these associations reflect causal effects is difficult to determine, as confounding by genetic liability may be a contributing factor. This study systematically investigated the role of genetic susceptibility across 30 pairs of comorbid mental disorders and further quantified the extent of genetic confounding for each specific disorder pair.

Methods: Using data from the iPSYCH2015 case-cohort, polygenic scores (PGS) were calculated for six disorders—autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), schizophrenia spectrum disorder (SCZ), bipolar disorder (BPD), major depressive disorder (MDD), and anorexia nervosa (ANO). Weighted time-to-event models, including Cox regression and Aalen's additive hazards models, were applied.

Results: Among 107,992 individuals with genotyping data, significant phenotypic associations were observed in 22 disorder pairs on both multiplicative and additive scales. SCZ, MDD, and ADHD were more likely to be comorbid with other mental disorders. Confounding explained by PGS of the prior disorder ranged 0.42% (ADHD–SCZ) to 3.28% (MDD–ASD), while that of the later disorder ranged −5.50% (ASD–ANO) to 10.09% (ADHD–MDD). Largest disorder-specific PGS contributions were: ASD in ASD–SCZ (1.48%), ADHD in ADHD–MDD (1.02%), SCZ in ASD–SCZ (2.59%), BPD in ADHD–BPD (2.18%), MDD in ADHD–MDD (10.09%), and ANO in ASD–ANO (−5.50%).

Conclusions: The findings suggest that the comorbidity within mental disorders may be partially explained by genetic risk for both preceding and subsequent disorders. Genetic confounding varies across disorder pairs, with stronger effects observed between neurodevelopmental and severe mental illness.

Functional somatic disorders in individuals with a history of sexual assault

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Importance: An increasing number of sexual assaults (SAs) is reported. Prior studies show that SA is strongly associated with functional somatic disorder (FSD). Objective: To investigate whether SA were associated with the development of incident FSD, including three functional somatic syndromes (FSS): chronic widespread pain (CWP), irritable bowel syndrome (IBS), and chronic fatigue (CF) over 5 years.

Design: Prospective cohort study based on the Danish Study of Functional Disorders (DanFunD) 5-year follow-up. Incident FSD cases were identified using symptom questionnaires and diagnostic interviews.

Setting: Population-based cohort aged 18–72 years from western greater Copenhagen area.

Participants: 4229 adults from the DanFunD cohort, (53.9% women, median age 56). Eligibility required completion of baseline, SA measures, and follow-up assessments.

Exposures: SA was assessed at baseline via two items from the self-reported Cumulative Lifetime Adversity Measure (CLAM), dichotomized into exposed vs non-exposed.

Main outcomes and measures: Incident FSD cases were defined using standardized criteria for single-organ and multi-organ FSD, CWP, IBS, and CF. Risk ratios (RRs) for FSD outcomes were estimated using generalized linear models adjusted for sex, emotional distress, life adversities/traumas, subjective social status, somatic comorbidities, neuroticism, health anxiety, perceived stress, and self-efficacy.

Results: Results showed that SA was significantly associated with incident FSD (RR=1.69; 95% CI=1.17-2.44), single-organ FSD (RR=1.65; 95% CI=1.14-2.38), multi-organ FSD (RR=6.47; 95% CI=1.93-21.75), FSS (RR=1.54; 95% CI=1.14-2.07), CWP (RR=1.89; 95% CI=1.11-3.23), while associations with IBS (RR=1.60; 95% CI=0.81-3.16), and CF (RR=1.47; 95% CI=0.89-2.42) were not significant. Overall, SA victims experienced a significantly higher

frequency of incident somatic symptoms than individuals not exposed to SA, including musculoskeletal, gastrointestinal, cardiopulmonary, and fatigue-related symptoms. Baseline emotional distress (e.g., anxiety or depression) did not modify the relationship between SA and FSD. Sensitivity analysis based on diagnostic interview cases confirmed these results.

Conclusion and relevance: This study suggests that SA may increase the risk of developing FSD, involving multiple bodily systems, emphasizing the critical need for further research and targeted interventions to address the long-term biopsychosocial consequences of SAs.

Evaluating psycho-somatic conditions and psychological assistance needs of Ukrainian healthcare professionals during wartime

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Evaluating psychosomatic conditions and psychological support needs of Ukrainian healthcare professionals during wartime

Background: After years of ongoing war, Ukrainian healthcare professionals continue to work under extraordinary pressure. Constant exposure to physical danger, overwhelming workloads, and emotional strain has raised serious concerns about their well-being . This study explored how HPs are coping, focusing on their emotional and physical health, their psychological hardiness, and their expectations for psychological support.

Methods: A mixed-method approach was applied. Emotional and somatic states were measured with the Hospital Anxiety and Depression Scale (HADS) and the Patient Health Questionnaire (PHQ-15). Hardiness was evaluated through the Professional Hardiness Questionnaire (PHQ), and open-ended questions provided insights into the types of support of healthcare felt they needed most.

Results: A total of 1,442 healthcare professionals took part in the study. The majority reported high levels of anxiety and depression, often accompanied by physical symptoms such as chest pain, back pain, and headaches. While overall psychological hardiness was found to be moderate, many participants showed strong motivation and a sense of professional control, highlighting their capacity to continue working despite hardships. When asked about support, healthcare professionals emphasized the importance of moral support from medical managers, psychological and spiritual guidance, and simply having time and space for rest.

Conclusion: Although many healthcare professionals possess knowledge of mental health, this does not shield them from the psychological and emotional strain of conflict. Both civilian and military healthcare workers remain highly vulnerable to traumatic experiences and require timely psychological assistance. To preserve their well-being, it is essential to provide them with dedicated care, early managerial support, and targeted interventions that address their mental and emotional needs.

Bodysymptoms: Reflections on developing an explanatory framework for symptoms that challenge the biomedical paradigm

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Background: Functional somatic symptoms (FSS) are common health conditions where patients experience persistent symptoms not fully explained by structural disease or damage. They may occur alongside somatic illness, psychiatric conditions, or functional disorders. Despite their prevalence, explanatory models remain fragmented, often shaped by biomedical reductionism and mind–body dualism. This contributes to stigma, uncertainty, and fragmented care. Meanwhile, patients increasingly turn to the internet for health information, but accessible, integrative, and evidence-based explanations of symptom persistence are scarce.

Objectives: To co-create and evaluate bodysymptoms.org, an open-access, multilingual, mobile-first web resource that provides explanatory models for multisystem FSS, grounded in contemporary science and lived experience.

Methods: We employed an extended participatory design process over one year, involving individuals with lived experience of FSS, clinicians, and researchers. Content and tone were iteratively refined through feedback to ensure usability and acceptability. Following its launch in January 2024, we conducted structured evaluations using website analytics, surveys, email responses, and think-aloud interviews. Updates were integrated into a revised framework launched in September 2025.

Results: Feedback emphasized the need to balance biomedical and psychological content, enhance accessibility, and highlight management strategies. In response, new topics such as The Predictive Brain, Interoception, and Exercise and Metabolism were added, alongside a dedicated Support and Recovery page. References and clinical resources were made more prominent, translations were improved, and website navigation streamlined. The updated framework integrates transdiagnostic explanations linking predictive processing, neuroimmune interactions, and embodied experience with actionable health advice.

Conclusion: Engaged scholarship and embodied knowledge can foster explanatory models that are clinically grounded, acceptable, and useful for patients with FSS. bodysymptoms.org offers a dynamic, adaptive framework that reduces stigma, supports patient understanding, and promotes integrative care. Future steps include wider dissemination, translation into additional languages, and development of a personalized, symptom-guided explanation tool.

Parental illness, adolescent minds: Tracing health anxiety in a Danish birth cohort

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Background: Health anxiety (HA) is characterized by excessive worry about being or becoming seriously ill. Negative illness experiences during childhood in a significant caregiver may be a risk factor for expressing HA later in life. This study aims to investigate the association between exposure to severe parental psychiatric and somatic illness during childhood and self-reported HA in adolescence.

Methods: The data stem from the Copenhagen Child Cohort 2000 on 2521 adolescents and their parents. Exposure to parental psychiatric and somatic illnesses, diagnosed in hospital-based settings from the child's birth to age 16, will be identified using data from national health registers. We will group parental mental disorders according to the main ICD-10 categories, whereas the severity of parental somatic illnesses will be estimated using Prior's criteria for multimorbidity. Our outcome of self-reported HA in adolescence was assessed at age 16/17 years using The Whiteley Index. Regression analyses will be applied to examine associations between the exposures of interest and HA level at age 16/17.

Results and perspectives: Investigating if exposure to severe parental illness, both psychiatric and somatic, during childhood is associated to HA in adolescence, can provide knowledge about families that may benefit from targeted help and support.

Risk Factors, Correlates, and Outcomes of Severe Anorexia Nervosa: Genes and Environment

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Background: Anorexia nervosa (AN) is a heritable psychiatric disorder with substantial treatment challenges and a high risk of chronicity. A clinically important subgroup, individuals with severe AN, is characterized by prolonged illness and poor outcomes. Research has advanced knowledge of AN overall, but the determinants of AN severity remain poorly understood. Furthermore, the lack of consensus on its definition has limited investigations into the genetic basis, early life determinants, and long-term consequences of severe AN.

Objectives: This project aims to improve understanding of severe AN by: (1) examining patterns of medication use; (2) investigating the genetic architecture of AN severity; (3) identifying environmental risk factors and their interaction with polygenic scores; and (4) assessing long-term health, psychiatric, and social outcomes.

Methods: Using Danish and Swedish national registers, we linked health and sociodemographic data with genotype information from the Anorexia Nervosa Genetics Initiative and the Eating Disorders Genetics Initiative. Illness severity was assessed using the Anorexia Nervosa Register-based Severity Index (AN-RSI), both as continuous and binary outcomes. Analyses included regression models, survival analyses, genome-wide association studies, polygenic score analyses, and longitudinal outcome assessments.

Results: Completed analyses on medication use (N=7,654, Denmark) showed that individuals with severe AN were prescribed substantially more medications, including psychotropics (OR=2.4, 95% CI 2.1–2.7), than those with less severe AN. This pattern persisted even without comorbid diagnoses. Within the severe AN group, comorbidity-based clusters showed elevated medication use. The AN-RSI was validated using Swedish registers, confirming robustness across Nordic systems. Preliminary analyses revealed consistent associations between established AN risk factors and severe AN risk factors. Ongoing studies are addressing gene–environment interactions, genome-wide association analyses, and long-term outcomes.

Conclusions: This project represents the first systematic investigation of severe AN across multiple domains. Preliminary findings highlight the challenges clinicians experience in devising a comprehensive treatment strategy specifically for severe AN. Ongoing analyses will further

elucidate risk factors and outcomes, informing prevention, intervention, and policy for this highly vulnerable population.

Validating the Transdiagnostic Self-injury Interview

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Background: Non-suicidal self-injury is the deliberate and self-inflicted damage of body tissue without suicidal intent that causes psychological and physical harm. It occurs across mental disorders and is a major health concern especially in psychiatric settings. The Transdiagnostic Self-injury Interview (TSI) is a measure for NSSI in clinical settings. It assesses onset, frequency, methods, and somatic treatment.

Objectives: The aims are to demonstrate the validity of TSI by investigating criterion validity, clinical correlates, and interrater reliability.

Methods: Recruiting sites were in- and outpatient units at the Department of Psychosis and Department of Affective Disorders, Aarhus University Hospital, Psychiatry. The inclusion criteria were currently undergoing psychiatric treatment; being 8 years of age or older; diagnosed with a mental disorder. The exclusion criteria were mental states that severely interfere with interviewing the patient (e.g. ongoing abuse of psychoactive substances, severe psychosis, severe neurodevelopmental disorders, IQ < 70, dementia). TSI were compared to the Deliberate Self-Harm Inventory, that is a validated 15-item self-report inventory. Validated measures for suicidality, emotional reactivity, depression, anxiety, psychotic symptoms, well-being, functional impairment, and history of trauma were included to examine clinical correlates of TSI.During training the raters individually rated six videos of TSI interviews. ICC had to be >0.60 before the raters could include participants to the study by themselves.

Results: Data collection was completed in August, 2025. Data from a total of 397 participants were collected. The participants were mostly female (68 %) and had a mean age of 29.9 years. Approximately half of the participants (49.1 %) had self-harming behavior within the past month and 33.6 % reported self-injury at least once a week. In most cases the injuries did not require somatic treatment. Further results will be presented at the conference.

Conclusion: When validation of TSI has been completed, we expect that it can be implemented nationally and used for early screening of NSSI in psychiatric settings. Improved registration of NSSI will advance register data making it possible to conduct detailed studies on risk factors for life-threatening NSSI behavior, suicide and coercion.

Profiling psychological and behavioural dynamics in binge eating disorder: a protocol for the PRODY-BED study

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Background and aim:
Binge eating disorder (BED) is a burdensome eating disorder, only recently recognized as a distinct disorder in diagnostic manuals (DSM-5 and ICD-11). Consequently, mechanisms that sustain BED and affect recovery are still poorly understood. Studies consistently link BED to difficulties with emotion regulation, executive function, and eating patterns. Hence, we aim to identify subgroups based on dysfunctional emotion regulation, executive function, and eating patterns, and to test their clinical utility in predicting treatment outcomes and remission.

Methods:
This longitudinal study recruits adults with BED from three treatment facilities. Self-report measures are answered at baseline, mid-treatment (8–12 weeks), end of treatment, and at 6- and 12-month follow-up. Quantitative analyses will identify subgroups through latent profile analysis and relate them to treatment outcomes and remission trajectories.

Perspectives:
Exploring multiple psychological and behavioral factors in one latent profile analysis will provide a more nuanced understanding of patient heterogeneity in BED. Of direct relevance to clinicians, identifying relevant patient subgroups may pave the way for more targeted and effective treatment while also clarifying the mechanisms underlying treatment response, remission, and illness persistence. Thus, this study can inform both clinical decision-making and theoretical models of BED.