

Psychosis Bulletin: August 2016

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Journal articles

Sleep

Clinician perceptions of sleep problems, and their treatment, in patients with non-affective psychosis

Aliyah Rehman, Felicity Waite, Bryony Sheaves, Stephany Biello, Daniel Freeman & Andrew Gumley. Psychosis July 2016

To assess clinicians' views about their understanding and treatment of sleep problems in people with non-affective psychosis. An online survey was emailed to adult mental health teams in two NHS trusts. One hundred and eleven clinicians completed the survey. All clinicians reported disrupted sleep in their patients, and endorsed the view that sleep and psychotic experiences each exacerbate the other. However, most clinicians ($n = 92$, 82%) assessed sleep problems informally, rather than using standard assessment measures. There was infrequent use of the recommended cognitive-behavioural treatments for sleep problems such as persistent insomnia, with the approaches typically used being sleep hygiene and medications instead. Clinicians recognise the importance of sleep in psychosis, but the use of formal assessments and recommended treatments is limited. Barriers to treatment implementation identified by the clinicians related to services (e.g. lack of time), patients (e.g. their lifestyle) and environmental features of inpatient settings. <http://bit.ly/2aHykyd>

Psychological Mechanisms Mediating Effects Between Trauma and Psychotic Symptoms: The Role of Affect Regulation, Intrusive Trauma Memory, Beliefs, and Depression

Hardy et al. Schizophr Bull (2016) 42 (suppl 1): S34-S43.

Evidence suggests a causal role for trauma in psychosis, particularly for childhood victimization. However, the establishment of underlying trauma-related mechanisms would strengthen the causal argument. In a sample of people with relapsing psychosis ($n = 228$), we tested hypothesized mechanisms specifically related to impaired affect regulation, intrusive trauma memory, beliefs, and depression. The majority of participants (74.1%) reported victimization trauma, and a fifth (21.5%) met symptomatic criteria for Posttraumatic Stress Disorder. We found a specific link between childhood sexual abuse and auditory hallucinations (adjusted OR = 2.21, SE = 0.74, $P = .018$). This relationship was mediated by posttraumatic avoidance and numbing (OR = 1.48, SE = 0.19, $P = .038$) and hyperarousal (OR = 1.44, SE = 0.18, $P = .045$), but not intrusive trauma memory, negative beliefs or depression. In contrast, childhood emotional abuse was specifically associated with delusions, both persecutory (adjusted OR = 2.21, SE = 0.68, $P = .009$) and referential (adjusted OR = 2.43, SE = 0.74, $P = .004$). The link with persecutory delusions was mediated by negative-other beliefs (OR = 1.36, SE = 0.14, $P = .024$), but not posttraumatic stress symptoms, negative-self beliefs, or depression. There was no evidence of mediation for referential delusions. No relationships were identified between childhood physical abuse and psychosis. The findings underline the role of cognitive-affective processes in the relationship between trauma and symptoms, and the importance of assessing and treating victimization and its psychological consequences in people with psychosis. <http://bit.ly/2bchq7o>

Childhood trauma in schizophrenia spectrum disorder as compared to other mental health disorders

Morkved et al., Psychosis, July 2016.

Childhood trauma (CT) is a potential risk factor in psychosis, and the prevalence of CT may be higher in patients with psychosis compared to other mental health disorders. The aim of the study was to investigate the potential specificity of CT in psychosis. The sample consisted of 52 patients with schizophrenia spectrum disorders and 52 matched patients with other mental health disorders. CT was measured by the CTQ-SF. The groups were compared on CTQ-SF sum and subscale scores indicating rates of CT, in addition to rates of none/low vs. moderate/severe levels of CT. The psychosis group had significantly higher CTQ-SF sum scores, and reported significantly higher levels of, and more severe, physical and sexual abuse and physical neglect. Also, 67.3% of the psychosis group reported ≥ 1 CT above the cut-off, compared to 38.5% in the non-psychosis group. No patients in the non-psychosis group reported ≥ 4 CT, compared to 9.6% in the psychosis group. Patients with psychosis reported more severe and frequent CT compared to non-psychotic patients. Our results may indicate some specificity for moderate and severe levels of physical and sexual abuse, and physical neglect, in schizophrenia spectrum disorders. <http://bit.ly/2bnqb8d>

The central role of self-agency in clinical recovery from first episode psychosis

Bjornestad et al., Psychosis, July 2016, Pages 1-9.

Purpose: While there is accumulating evidence for clinical recovery in a significant proportion of people experiencing a first episode psychosis, the mechanisms facilitating this form of recovery are less well known. Thus, the aim of this study is to investigate mechanisms of recovery after a first-episode psychosis as perceived by clinically recovered service users.

Methods: Thematic analytic approach within an interpretative–phenomenological framework. Twenty clinically recovered service users were interviewed. Analysis followed an established meaning condensation procedure.

Results: Main theme: *Establishment of subjective self-agency*. Subordinate themes: (1) *Environmental support and gentle pressure*, (2) *Individually tailored assistance*, (3) *Antipsychotic medication: relinquishing personal responsibility, and considerable side effects*.

Conclusions: We suggest that an increase in sense of personal agency is a core mechanism driving recovery for participants in the study sample. Findings indicate that interventions aiming to boost subjective and behavioral agency in service users might be of great benefit, particularly in combating negative symptoms of psychosis.

<http://bit.ly/2bnQyWt>



Antipsychotic Medication

Dose Equivalents for Antipsychotic Drugs: The DDD Method

Leucht, Samara, Heres & Davis. Schizophr Bull (2016) 42 (suppl 1): S90-S94.

Dose equivalents of antipsychotics are an important but difficult to define concept, because all methods have weaknesses and strongholds. We calculated dose equivalents based on defined daily doses (DDD) presented by the World Health Organisation's Collaborative Center for Drug Statistics Methodology. Doses equivalent to 1mg olanzapine, 1mg risperidone, 1mg haloperidol, and 100mg chlorpromazine were presented and compared with the results of 3 other methods to define dose equivalence (the "minimum effective dose method," the "classical mean dose method," and an international consensus statement). We presented dose equivalents for 57 first-generation and second-generation antipsychotic drugs, available as oral, parenteral, or depot formulations. Overall, the identified equivalent doses were comparable with those of the other methods, but there were also outliers. The major strength of this method to define dose response is that DDDs are available for most drugs, including old antipsychotics, that they are based on a variety of sources, and that DDDs are an internationally accepted measure. The major limitations are that the information used to estimate DDDs is likely to differ between the drugs. Moreover, this information is not publicly available, so that it cannot be reviewed. The WHO stresses that DDDs are mainly a standardized measure of drug consumption, and their use as a measure of dose equivalence can therefore be misleading. We, therefore, recommend that if alternative, more "scientific" dose equivalence methods are available for a drug they should be preferred to DDDs. Moreover, our summary can be a useful resource for pharmacovigilance studies.

Psychoeducation Improves Compliance and Outcome in Schizophrenia Without an Increase of Adverse Side Effects: A 7-Year Follow-up of the Munich PIP-Study

Bauml et al. Schizophr Bull (2016) 42 (suppl 1): S62-S70.

Psychoeducation improves adherence and motivates patients to accept a maintenance therapy as recommended by the guidelines. This would mean a daily consumption of at least 300 chlorpromazine (CPZ) units in the long run and should lead to an increase of the antipsychotic dosage in comparison to patients with treatment as usual (TAU). This raises 2 important questions: whether more side effects are provoked and do the patients have a corresponding benefit with a better outcome. A total of 41 patients with a diagnosis of schizophrenic or schizoaffective disorder were randomized at study entry, either to bifocal psychoeducation (21), or to standard treatment (20). They were compared concerning compliance, type of medication, dosage (CPZ equivalents), motor side effects and number of days in hospital. The average daily antipsychotic medication 2 and 7 years after index discharge was 365 and 354 CPZ-units respectively in the intervention group (IG), but 247 and 279, respectively in the control group (CG). The extent of motor side effects was slightly smaller in the IG, but they showed a small and statistically not significant increase in the rate of tardive dyskinesia (TD) after 7 years. At the 7-year follow-up the patients in the IG had spent 74.7 days in hospital compared to 243.4 days for the patients in the CG ($P < .05$). The course of illness was significantly better in the IG without increasing motor side-effects. Therefore, psychoeducation should be integrated more systematically into the routine treatment. These data are part of a previous study, published 2007, with a sample size of 48 patients. Seven patients—3 of the IG and 4 of the CG—could not be included, because they were not able to complete the very complex "Computer-based kinematic analysis of motor performance." In this article all conclusions are referred to the new sample size, therefore some results are slightly different in comparison to the previous data.

Intervention Studies

Enhancing Cognitive Training Through Aerobic Exercise After a First Schizophrenia Episode: Theoretical Conception and Pilot Study

Nuechterlein et al., Schizophr Bull (2016) 42 (suppl 1): S44-S52.

Cognitive training (CT) and aerobic exercise have separately shown promise for improving cognitive deficits in schizophrenia. Aerobic exercise releases brain-derived neurotrophic factor, which promotes synaptic plasticity and neurogenesis. Thus, aerobic exercise provides a neurotrophic platform for neuroplasticity-based CT. The combination of aerobic exercise and CT may yield more robust effects than CT alone, particularly in the initial course of schizophrenia. In a pilot study, 7 patients with a recent onset of schizophrenia were assigned to Cognitive Training & Exercise (CT&E) and 9 to CT alone for a 10-week period. Posit Science programs were used for CT. Neurocognitive training focused on tuning neural circuits related to perceptual processing and verbal learning and memory. Social cognitive training used the same learning principles with social and affective stimuli. Both groups participated in these training sessions 2d/wk, 2h/d. The CT&E group also participated in an aerobic conditioning program for 30 minutes at our clinic 2d/wk and at home 2d/wk. The effect size for improvement in the MATRICS Consensus Cognitive Battery Overall Composite score for CT&E patients relative to CT patients was large. Functional outcome, particularly independent living skills, also tended to improve more in the CT&E than in the CT group. Muscular endurance, cardiovascular fitness, and diastolic blood pressure also showed relative improvement in the CT&E compared to the CT group. These encouraging pilot study findings support the promise of combining CT and aerobic exercise to improve the early course of schizophrenia.

A Randomized Controlled Trial of Group Coping-Oriented Therapy vs Supportive Therapy in Schizophrenia: Results of a 2-Year Follow-up

Schaub et al., Schizophr Bull (2016) 42 (suppl 1): S71-S80.

Over the past 30 years, illness management programs and cognitive-behavioral therapy for psychosis have gained prominence in the treatment of schizophrenia. However, little is known about the long-term benefits of these types of programs when delivered during inpatient treatment following a symptom exacerbation. To evaluate this question, we conducted a randomized controlled trial comparing the long-term effects of a group-based coping-oriented program (COP) that combined the elements of illness management with cognitive behavioral-therapy for psychosis, with an equally intensive supportive therapy (SUP) program. 196 inpatients with DSM-IV schizophrenia were randomized to COP or SUP, each lasting 12 sessions provided over 6–8 weeks. Outcome measures were collected in the hospital at baseline and post-assessment, and following discharge into the community 1 and 2 years later. We compared the groups on rehospitalizations, symptoms, psychosocial functioning, and knowledge about psychosis. Intent-to-treat analyses indicated that patients in COP learned significantly more information about psychosis, and had greater reductions in overall symptoms and depression/anxiety over the treatment and follow-up period than patients in SUP. Patients in both groups improved significantly in other symptoms and psychosocial functioning. There were no differences between the groups in hospitalization rates, which were low. People with schizophrenia can benefit from short-term COPs delivered during the inpatient phase, with improvements sustaining for 2 years following discharge from the hospital. More research is needed to evaluate the long-term impact of coping-oriented and similar programs provided during inpatient treatment.

Evaluation of the validity and utility of a transdiagnostic psychosis dimension encompassing schizophrenia and bipolar disorder

Ulrich Reininghaus et al. *The British Journal of Psychiatry*, Aug 2016, 209 (2) 107-113



In recent years, the Kraepelinian dichotomy has been challenged in light of evidence on shared genetic and environmental factors for schizophrenia and bipolar disorder, but empirical efforts to identify a transdiagnostic phenotype of psychosis remain remarkably limited.

To investigate whether schizophrenia spectrum and bipolar disorder lie on a transdiagnostic spectrum with overlapping non-affective and affective psychotic symptoms.

Multidimensional item-response modelling was conducted on symptom ratings of the OPERational CRITERia (OPCRIT) system in 1168 patients with schizophrenia spectrum and bipolar disorder.

A bifactor model with one general, transdiagnostic psychosis dimension underlying affective and non-affective psychotic symptoms and five specific dimensions of positive, negative, disorganised, manic and depressive symptoms provided the best model fit and diagnostic utility for categorical classification.

<http://bit.ly/2aMNJJ6>

Further Articles of Interest

Treatment of Cognition in the Schizophrenia Spectrum: The Context of Psychiatric Rehabilitation

Will D. Spaulding and Mary E. Sullivan
Schizophr Bull 2016 42: S53-S61

Psychoeducational and Cognitive Behavioral Treatment Programs: Implementation and Evaluation From 1995 to 2015 in Kraepelin's Former Hospital

Annette Schaub, Hanns Hippus, Hans-Jürgen Möller, and Peter Falkai, Schizophr Bull 2016 42: S81-S89

Intensive Auditory Cognitive Training Improves Verbal Memory in Adolescents and Young Adults at Clinical High Risk for Psychosis

Rachel Loewy, Melissa Fisher, Danielle A. Schlosser, Bruno Biagiatti, Barbara Stuart, Daniel H. Mathalon, and Sophia Vinogradov, Schizophr Bull 2016 42: S118-S126

A qualitative analysis of the experiences of people with psychosis of a novel cognitive behavioural therapy targeting suicidality

Yvonne F. Awenat, Emma Shaw-Núñez, James Kelly, Heather Law, Sehar Ahmed, Mary Welford, Nicholas Tarrier, and Patricia A. Gooding, *Psychosis* , p 1-10, Published online: 29 Jul 2016 .

VRK2 gene expression in schizophrenia, bipolar disorder and healthy controls

Martin Tesli, Katrine Verena Wirgenes, Timothy Hughes, Francesco Bettella, Lavinia Athanasiu, Eva S. Hoseth, Mari Nerhus, Trine V. Lagerberg, Nils E. Steen, Ingrid Agartz, Ingrid Melle, Ingrid Dieset, Srdjan Djurovic, and Ole A. Andreassen. *BJP* August 2016 209:114-120

Impact of childhood trauma on risk of relapse requiring psychiatric hospital admission for psychosis

N. Petros, E. Foglia, E. Klamerus, S. Beards, R. M. Murray, and S. Bhattacharyya. *BJP* August 2016 209:169-170;