Colleagues,
See below for recent articles and other items of interest on Psychosis. If you wish to see the full text and there is a link below the abstract you should be able to access the article using your Athens password. If there is no link or you have any problems please email library.moorgreen@southernhealth.nhs.uk.

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Social Isolation
The Costs of Friendship: Severe Mental illness, Poverty and Social Isolation

Topor, Ljungqvist & Strandberg (2016). Psychosis

The relationship between severe mental illness, poverty and social isolation has been explored in a number of studies. The purpose of the study was to explore the relationship between financial strain and social isolation. Sixteen persons with severe mental illness were interviewed about their experience of having a severe mental illness, living in poverty and the effect these circumstances had on their social relationships. The interviews were analysed according to thematic analysis. The overarching theme was “the cost of having friends”; it consisted of five categories: the loss of friends; making do without friends; dependence on friends and family; supported socialisation; and money as an aid to recovery. The participants experienced a connection between their financial circumstances, their social relationships and their lack of initiative in maintaining and developing a social network. The results underline the importance of considering the person in his/her social context in order to avoid the risk of interpreting rational strategies for coping as psychiatric symptoms.

Paranoid Ideation and Violence: Meta-analysis of Individual Subject Data of 7 Population Surveys


There is controversy whether associations between psychosis and violence are due to coexisting substance misuse and factors increasing risk in nonpsychotic persons. Recent studies in clinical samples have implicated independent effects of paranoid delusions. Research findings suggest that individual psychotic-like experiences on the psychosis continuum in the general population are associated with violence; it remains unclear whether this association is due to psychiatric comorbidity. We pooled data from 7 UK general population surveys (n = 23 444) and conducted a meta-analysis of individual subject data. Further meta-analyses were performed to identify heterogeneity. Main exposure variables: 5 psychotic-like-experiences and a categorical measure of psychosis. Comorbidity was established through standardized self-report instruments. Information was collected on violence, severity, victims.

Paranoid ideation was associated with violence (AOR 2.26, 95% CI 1.75–2.91), severity and frequency, even when controlling for effects of other psychotic-like-experiences. Associations were not explained by comorbid conditions, including substance dependence. Psychotic disorder was associated with violence and injury to the perpetrator but associations were explained by paranoid ideation. Individual associations between hypomania, thought insertion, hallucinations, and violence were nonsignificant after adjustments, and significantly associated only when comorbid with antisocial personality disorder. Strange experiences were only associated with intimate partner violence. Paranoid ideation on a psychosis-continuum in the general population was associated with violence. All other associations were explained by comorbidity.

Further investigation should determine whether paranoid ideation among persons in the community require preventive interventions, similar to those presenting to mental health services. Nevertheless, risks are considerably increased for psychotic-like-experiences with co-occurring antisocial personality disorder. http://bit.ly/28SwxEi

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Future-Directed Thinking in First-Episode Psychosis.


This study employed the Future Thinking Task (MacLeod et al., 2005, Br. J. Clin. Psychol., 44, 495) to investigate whether future-directed thinking in first-episode psychosis is significantly different from that of matched controls, and to identify its correlates in this patient group. Design: Cross-sectional, mixed-model, case–control design. Participants were 30 patients with first-episode psychosis and 27 matched controls. The Future Thinking Task was used to assess future-directed thinking in both groups. Anxiety and depression were also measured as well as self-report measures of hopelessness, suicide ideation and a measure of negative symptoms. Individuals with psychosis were impaired in future-directed thinking in both positive and negative domains, particularly with respect to the coming year. Increased self-reported hopelessness was associated with reduced positive future thinking and increased negative future thinking. Increased positive future thinking was also associated with reduced severity of negative symptoms, whilst negative future thinking was associated with suicide ideation. Individuals with first-episode psychosis show a reduction in positive future thinking in line with that seen in other clinical groups, but this is accompanied by an unexpected reduction in negative future thinking. The findings suggest a general disengagement with the future in this group that may affect recovery and functioning. [Link to article](http://bit.ly/28ZklAX)


Although individuals with schizophrenia show impaired feedback-driven learning on probabilistic reversal learning (PRL) tasks, the specific factors that contribute to these deficits remain unknown. Recent work has suggested several potential causes including neurocognitive impairments, clinical symptoms, and specific types of feedback-related errors. To examine this issue, we administered a PRL task to 126 stable schizophrenia outpatients and 72 matched controls, and patients were retested 4 weeks later. The task involved an initial probabilistic discrimination learning phase and subsequent reversal phases in which subjects had to adjust their responses to sudden shifts in the reinforcement contingencies. Patients showed poorer performance than controls for both the initial discrimination and reversal learning phases of the task, and performance overall showed good test–retest reliability among patients. A subgroup analysis of patients (n = 64) and controls (n= 49) with good initial discrimination learning revealed no between-group differences in reversal learning, indicating that the patients who were able to achieve all of the initial probabilistic discriminations were not impaired in reversal learning. Regarding potential contributors to impaired discrimination learning, several factors were associated with poor PRL, including higher levels of neurocognitive impairment, poor learning from both positive and negative feedback, and higher levels of indiscriminate response shifting. The results suggest that poor PRL performance in schizophrenia can be the product of multiple mechanisms. [Link to article](http://bit.ly/28PCEX6)
Prenatal Nicotine Exposure and Risk of Schizophrenia Among Offspring in a National Birth Cohort


Objective:
Cigarette smoking during pregnancy is a major public health problem leading to adverse health outcomes and neurodevelopmental abnormalities among offspring. Its prevalence in the United States and Europe is 12%–25%. This study examined the relationship between prenatal nicotine exposure (cotinine level) in archived maternal sera and schizophrenia in offspring from a national birth cohort.

Method:
The authors conducted a population-based nested case-control study of all live births in Finland from 1983 to 1998. Cases of schizophrenia in offspring (N=977) were identified from a national registry and matched 1:1 to controls on date of birth, sex, and residence. Maternal serum cotinine levels were prospectively measured, using quantitative immunoassay, from early- to mid-gestation serum specimens archived in a national biobank.

Results:
A higher maternal cotinine level, measured as a continuous variable, was associated with an increased odds of schizophrenia (odds ratio=3.41, 95% confidence interval, 1.86–6.24). Categorically defined heavy maternal nicotine exposure was related to a 38% increased odds of schizophrenia. These findings were not accounted for by maternal age, maternal or parental psychiatric disorders, socioeconomic status, and other covariates. There was no clear evidence that weight for gestational age mediated the associations.

Conclusions:
To the authors’ knowledge, this is the first study of the relationship between a maternal smoking biomarker and schizophrenia. It provides the most definitive evidence to date that smoking during pregnancy is associated with schizophrenia. If replicated, these findings suggest that preventing smoking during pregnancy may decrease the incidence of schizophrenia.

http://bit.ly/1WLVWCT
Psychological Interventions for Trauma in Individuals Who Have Psychosis: A Systematic Review and Meta-analysis

*Sin & Spain (2016). Psychosis*

Psychological interventions, in particular those derived from cognitive-behavioural therapy frameworks, and eye movement desensitisation and reprocessing, are effective for reducing post-traumatic stress disorder and associated distress. To date, studies have tended to exclude individuals who have psychosis; a clinical population who are known to be at risk of experiencing trauma. Whether people with psychosis also benefit from trauma-focussed psychological therapies (TFPT) warrants further investigation. A systematic search for randomised controlled trials was undertaken. Data were synthesised using narrative and meta-analytic approaches. Five studies met the review inclusion criteria. Study findings overall indicate that TFPT are effective for reducing intrusive thoughts and images, negative beliefs associated with traumatic memories, hypervigilance, and avoidance. Limited data were available about the utility of interventions for improving mood, anxiety and quality of life. Attrition rates were comparable for participants offered active and control conditions. Findings are consistent with those reported for the non-psychosis population. Future studies should establish which interventions are more acceptable and glean more favourable outcomes for this clinical population. http://bit.ly/28RVosC

Acceptance and Efficacy of Metacognitive Training (MCT) on Positive Symptoms and Delusions in Patients With Schizophrenia: A Meta-analysis Taking Into Account Important Moderators


Metacognitive training (MCT) is a new, widely used intervention for psychosis. The present meta-analysis examines the efficacy of MCT in schizophrenia. Fifteen studies comparing effects of MCT on positive symptoms, delusions or acceptance of MCT with a control group were included in this meta-analysis. These studies comprised a total of 408 patients in the MCT condition and 399 in the control condition. The moderating effects of masking of outcome assessment, randomization, incomplete outcome data, use of an active control intervention, and individual vs group MCT were investigated. Possible effects of sensitivity analyses and publication bias were also examined. The results show a significant overall effect of MCT for positive symptoms ($g = -0.34$, 95% CI $[-0.53, -0.15]$), delusions ($g = -0.41$, 95% CI $[-0.74, -0.07]$) and acceptance of the intervention ($g = -0.84$, 95% CI $[-1.37, -0.31]$). Using only studies being at low risk for bias regarding randomization, masking and incomplete outcome data reduced effect sizes for positive symptoms and delusions ($g = -0.28$, 95% CI $[-0.50, -0.06]$ and $g = -0.18$, 95% CI $[-0.43, 0.06]$), respectively. This meta-analysis demonstrates that MCT exerts a small to moderate effect on delusions and positive symptoms and a large effect on acceptance of the intervention. The effect on delusions is reduced, but remains significant when potential biases are considered. http://bit.ly/28OB3k0
Service Utilization

Coping With Psychotic-like Experiences Without Receiving Help from Mental Health Care. A Qualitative Study


This study describes the ways in which people with psychotic-like experiences without mental health care manage to achieve successful lives. The qualitative study, which used a grounded-theory approach combined with elements of narrative research, draws on interviews with 18 individuals who were recruited through a self-selection strategy via a national advertisement. The frequency of participants’ psychotic-like symptoms was comparable to that of patients who receive mental health treatment for psychosis; however, participants experienced lower levels of distress. The results provide insight into the variety of strategies and interpretative frameworks participants develop to create and to maintain self-defined successful lives while coping with psychotic-like experiences. Experiential knowledge from people outside care settings can be helpful in the development of more sophisticated activities, ideas, and discussions within the international recovery movement.


Spirituality

Religion in the Recovery Journey of Individuals with Experience of Psychosis


This study investigated the role of religion in recovery from psychosis. Semi-structured interviews explored the experiences of ten participants. Data analysis was informed by social constructionist grounded theory. Several processes through which religion may influence recovery were identified: use of scriptures and rituals; a genuine connection with God; the struggle to maintain rituals; guidelines for living; choice and control; relating to others; enhancing psychological well-being; and making sense of experiences. Implications are that services should address religious needs in promoting recovery. This could be achieved through environmental adaptations, collaboration with religious representatives and incorporation of religion into psychotherapeutic approaches.

In 2007, we proposed an explanation of delusion formation as aberrant prediction error-driven associative learning. Further, we argued that the NMDA receptor antagonist ketamine provided a good model for this process. Subsequently, we validated the model in patients with psychosis, relating aberrant prediction error signals to delusion severity.

During the ensuing period, we have developed these ideas, drawing on the simple principle that brains build a model of the world and refine it by minimising prediction errors, as well as using it to guide perceptual inferences. While previously we focused on the prediction error signal per se, an updated view takes into account its precision, as well as the precision of prior expectations. With this expanded perspective, we see several possible routes to psychotic symptoms – which may explain the heterogeneity of psychotic illness, as well as the fact that other drugs, with different pharmacological actions, can produce psychotomimetic effects.

In this article, we review the basic principles of this model and highlight specific ways in which prediction errors can be perturbed, in particular considering the reliability and uncertainty of predictions. The expanded model explains hallucinations as perturbations of the uncertainty mediated balance between expectation and prediction error. Here, expectations dominate and create perceptions by suppressing or ignoring actual inputs. Negative symptoms may arise due to poor reliability of predictions in service of action. By mapping from biology to belief and perception, the account proffers new explanations of psychosis. However, challenges remain. We attempt to address some of these concerns and suggest future directions, incorporating other symptoms into the model, building towards better understanding of psychosis.