Dear Colleagues

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Journal articles

Cognition

A Meta-Analysis of Autobiographical Memory Studies in Schizophrenia Spectrum Disorder

Meta-analyses and reviews on cognitive disorders in schizophrenia have shown that the most robust and common cognitive deficits are found in episodic memory and executive functions. More complex memory domains, such as autobiographical memory (AM), are also impaired in schizophrenia, but such impairments are reported less often despite their negative impact on patients’ outcome. In contrast to episodic memory, assessed in laboratory tasks, memories of past personal events are much more complex and directly relate to the self. The meta-analysis included 20 studies, 571 patients with schizophrenia spectrum disorder, and 503 comparison subjects. It found moderate-to-large effect sizes with regard to the 3 parameters commonly used to assess AM: memory specificity ($g = -0.97$), richness of detail ($g = -1.40$), and conscious recollection ($g = -0.62$). These effect sizes were in the same range as those found in other memory domains in schizophrenia; for this reason, we propose that defective memories of personal past events should be regarded as a major cognitive impairment in this illness.

http://bit.ly/1mYqtO1
Studies have found an association between a history of trauma and the presence of psychotic symptoms. Despite the research evidence it appears to be the case that many clinicians are not routinely asking about traumatic experiences. This study aims to ascertain the level of agreement between rates of self-reported trauma and that which is recorded in case notes. The study population was drawn from all individuals with a confirmed diagnosis of psychosis, residing within a defined catchment area. Rates of childhood trauma, lifetime trauma and trauma related to the Troubles in Northern Ireland recorded in participants’ case notes were compared to their responses on self-report questionnaires: THQ, CTQ and TREQ. Relatively high levels of trauma were reported by participants on the self-report measures that were administered. The rates of trauma recorded in case notes were similar to that found in other studies. Also in line with other research were poor levels of agreement between self-report and case note data. High levels of lifetime, childhood and trauma related to the Troubles in Northern Ireland were found when the individuals in the sample were directly assessed for the purposes of this study. In contrast much lower rates were recorded in patient notes on routine clinical assessment. The results suggest that clinicians do not routinely enquire about trauma histories with this population and as a result, case notes underestimate trauma prevalence.

http://bit.ly/1Q0v7F2

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Aberrant Salience Is Related to Dysfunctional Self-Referential Processing in Psychosis.


A dysfunctional differentiation between self-relevant and irrelevant information may affect the perception of environmental stimuli as abnormally salient. The aberrant salience hypothesis assumes that positive symptoms arise from an attribution of salience to irrelevant stimuli accompanied by the feeling of self-relevance. Self-referential processing relies on the activation of cortical midline structures which was demonstrated to be impaired in psychosis. We investigated the neural correlates of self-referential processing, aberrant salience attribution, and the relationship between these 2 measures across the psychosis continuum. Twenty-nine schizophrenia patients, 24 healthy individuals with subclinical delusional ideation, and 50 healthy individuals participated in this study. Aberrant salience was assessed behaviorally in terms of reaction times to task irrelevant cues. Participants performed a self-reference task during fMRI in which they had to apply neutral trait words to them or to a public figure. The correlation between self-referential processing and aberrant salience attribution was tested. Schizophrenia patients displayed increased aberrant salience attribution compared with healthy controls and individuals with subclinical delusional ideation, while the latter exhibited intermediate aberrant salience scores. In the self-reference task, schizophrenia patients showed reduced activation in the ventromedial prefrontal cortex (vmPFC), but individuals with subclinical delusional ideation did not differ from healthy controls. In schizophrenia patients, vmPFC activation correlated negatively with implicit aberrant salience attribution. Higher aberrant salience attribution in schizophrenia patients is related to reduced vmPFC activation during self-referential judgments suggesting that aberrant relevance coding is reflected in decreased neural self-referential processing as well as in aberrant salience attribution. http://bit.ly/1RPUjzZ

First Episode
Impact of Childhood Adversities on Specific Symptom Dimensions in First-Episode Psychosis.


The relationship between childhood adversity (CA) and psychotic disorder is well documented. As the adequacy of the current categorical diagnosis of psychosis is being increasingly questioned, we explored independent associations between different types of CA and specific psychotic symptom dimensions in a well-characterized sample of first-episode psychosis (FEP) patients. This study involved 236 FEP cases aged 18-65 years who presented for the first time to psychiatric services in South London, UK. Psychopathology was assessed with the Positive and Negative Syndrome Scale and confirmatory factor analysis was used to evaluate the statistical fit of the Wallwork/Fortgang five-factor model of psychosis. CA prior to 17 years of age (physical abuse, sexual abuse, parental separation, parental death, and being taken into care) was retrospectively assessed using the Childhood Experience of Care and Abuse Questionnaire. Childhood sexual abuse ($\beta = 0.96$, 95% confidence interval (CI) 0.40-1.52), childhood physical abuse ($\beta = 0.48$, 95% CI 0.03-0.93) and parental separation ($\beta = 0.60$, 95% CI 0.10-1.11) showed significant associations with the positive dimension; while being taken into care was associated with the excited dimension ($\beta = 0.36$, 95% CI 0.08-0.65), independent of the other types of CA. No significant associations were found between parental death and any of the symptom dimensions. A degree of specificity was found in the relationships between different types of CA and psychosis symptom dimensions in adulthood, suggesting that distinct pathways may be involved in the CA-psychosis association. These potentially different routes to developing psychosis merit further empirical and theoretical exploration.
Schizophrenia patients have been shown to exhibit subnormal levels of electrophysiological suppression to self-initiated, button press elicited sounds. These self-suppression deficits have been shown to improve following the imposition of a subsecond delay between the button press and the evoked sound. The current study aimed to investigate whether nonclinical individuals who scored highly on the personality dimension of schizotypy would exhibit similar patterns of self-suppression abnormalities to those exhibited in schizophrenia. Thirty-nine nonclinical individuals scoring above the median (High Schizotypy) and 41 individuals scoring below the median (Low Schizotypy) on the Schizotypal Personality Questionnaire (SPQ) underwent electroencephalographic recording. The amplitude of the N1-component was calculated while participants (1) listened to tones initiated by a willed button press and played back with varying delay periods between the button press and the tone (Active conditions) and (2) passively listened to a series of tones (Listen condition). N1-suppression was calculated by subtracting the amplitude of the N1-component of the auditory evoked potential in the Active condition from that of the Listen condition, while controlling for the activity evoked by the button press per se. The Low Schizotypy group exhibited significantly higher levels of N1-suppression to undelayed tones compared to the High Schizotypy group. Furthermore, while N1-suppression was found to decrease linearly with increasing delays between the button press and the tone in the Low Schizotypy group, this was not the case in the High Schizotypy group. The findings of this study suggest that nonclinical, highly schizotypal individuals exhibit subnormal levels of N1-suppression to undelayed self-initiated tones and an abnormal pattern of N1-suppression to delayed self-initiated tones. To the extent that these results are similar to those previously reported in patients with schizophrenia, these findings provide support for the existence of a neurophysiological "continuum of psychosis."
**Psychology**

**Normal Cognitive Conflict Resolution in Psychosis Patients With and Without Schizophrenia.**

Schizophrenia is thought to be associated with impairments of executive functions, among which conflict control functions play an important role. The available evidence, however, suggests that conflict control is intact in schizophrenia, despite being based on methods that have successfully unveiled conflict control problems in other disorders. Differences between schizophrenia patients and healthy controls in stimulus perception, selective attention, alertness, processing speed and reaction time variability may have been previously overlooked. By controlling for these potential confounders, the present experiments were aimed to be more rigorous tests of the hypothesis that psychosis and schizophrenia are associated with impairments of conflict control. To that end, 27 healthy controls and 53 recent-onset psychosis patients with (n = 27) and without schizophrenia (n = 26) with comparable age, intelligence, and education level, performed three iconic conflict control tasks: the Simon task, the Eriksen flanker task, and the Stroop task, all equipped with neutral trials, and analyzed for various potential confounders. They further performed a battery of standard neuropsychological tests. Schizophrenia patients showed no increased conflict effects in any of the 3 tasks for any alternative measures used. Nonschizophrenia patients only showed abnormally increased response competition in the Simon task. All patients nevertheless demonstrated impaired control of attention and verbal memory. These findings indicate that the type of conflict control engaged by conflict tasks is intact in recent-onset schizophrenia, suggesting that a major component of executive function is spared in schizophrenia. We discuss these findings in terms of proactive and reactive control. [http://bit.ly/1RPQqLj](http://bit.ly/1RPQqLj)

**Interpersonal Sensitivity and Functioning Impairment in Youth at Ultra-High Risk for Psychosis.**
Valmaggia, Saba, Brandizzi et al. 2016. European child & adolescent psychiatry, 25(1) 7-16.

A personality trait that often elicits poor and uneasy interpersonal relationships is interpersonal sensitivity. The aim of the present study was to explore the relationship between interpersonal sensitivity and psychosocial functioning in individuals at ultra-high risk for psychosis as compared to help-seeking individuals who screened negative for an ultra-high risk of psychosis. A total sample of 147 adolescents and young adult who were help seeking for emerging mental health problems participated in the study. The sample was divided into two groups: 39 individuals who met criteria for an ultra-high-risk mental state (UHR), and 108 (NS). The whole sample completed the Interpersonal Sensitivity Measure (IPSM) and the Global Functioning: Social and Role Scale (GF:SS; GF:RS). Mediation analysis was used to explore whether attenuated negative symptoms mediated the relationship between interpersonal sensitivity and social functioning. Individuals with UHR state showed higher IPSM scores and lower GF:SS and GF:RS scores than NS participants. A statistically negative significant correlation between two IPSM subscales (Interpersonal Awareness and Timidity) and GF:SS was found in both groups. Our results also suggest that the relationship between the aforementioned aspects of interpersonal sensitivity and social functioning was not mediated by negative prodromal symptoms. This study suggests that some aspects of interpersonal sensitivity were associated with low level of social functioning. Assessing and treating interpersonal sensitivity may be a promising therapeutic target to improve social functioning in young help-seeking individuals.
Biological Psychiatry

Salivary Cortisol in Early Psychosis: New Findings and Meta-Analysis.

Schizophrenia is a multifactorial disorder and environmental risk factors for it might contribute to hypothalamos-pituitary-adrenal axis (HPA) dysregulation. While increased cortisol levels have been reported in schizophrenia, as well as in early psychosis (compared to healthy controls), a crucial unresolved issue is whether elevated cortisol levels could be related to the distress of an emerging illness, rather than being specific to psychosis. Here, we report new findings from the first French cohort of young help-seekers (ICAAR) including ultra-high risk subjects (UHR), first-episode of psychosis (FEP) and non at-risk help seekers controls (HSC), followed by a meta-analysis of all available reports on salivary basal cortisol levels in early psychosis (UHR and FEP). In the ICAAR study, 169 individuals (15-30 years old) had their basal cortisol levels sampled and they were categorized (at baseline) as either UHR, FEP, or HSC using the criteria of the Comprehensive Assessment of At-Risk Mental States (CAARMS). The three groups were compared at baseline, and the UHR and HSC individuals were also included in a one-year longitudinal follow-up. UHRs who converted to psychosis at the follow up (UHR-P) were compared to non-converters (UHR-NP). We also performed a meta-analysis from case-control studies with basal salivary measures of cortisol, drawing from a systematic bibliographic search using the keywords 'cortisol', 'glucocorticoid', 'HPA' with 'UHR', 'CHR', 'at-risk mental state', 'schizotypal', 'prodromal schizophrenia', 'first-episode psychosis', 'first episode schizophrenia', 'newly diagnosed schizophrenia', 'recent onset schizophrenia' [in Medline, Web of Knowledge (WOS), EBSCO], followed by a systematic screening of the resulting articles. Basal cortisol levels were not significantly different between UHR, FEP, and HSC controls in the ICAAR cohort. Interestingly, initial cortisol levels were correlated with positive symptoms at the one year follow-up in the ICAAR cohort. The meta-analysis revealed a significant elevation of the salivary basal cortisol levels in UHR individuals compared to controls (8 studies-1060 individuals), but not between FEP and controls (6 studies-441 individuals). Indirect comparison of salivary basal cortisol levels between UHR and FEP did not yield significant differences. Finally, no differences were detected between the baseline cortisol of UHR-P and UHR-NP (4 studies-301 individuals). The meta-analysis (including new data) indicates that basal cortisol levels were increased in UHR compared to controls, but FEP levels were not different from UHR or controls. Many confounding factors could decrease the effect size in FEP especially medication intake. Taken together with our new results (which made use of help-seeker controls, and not merely healthy controls), the findings indicate that basal cortisol levels may not be a reliable biomarker for early psychosis. Further studies are needed to clarify the precise role of the HPA axis in psychotic conversion. http://bit.ly/1Qb8wrg

Service User Experience


There is a paucity of research into the experience of compulsory admissions under the Mental Health Act (MHA) 1983/2007, particularly for adults with psychosis, yet this diagnostic group reportedly account for the largest proportion of compulsory admissions. This UK-based study’s objective was to explore the compulsory admission experiences (under the MHA 1983/2007) of service users with psychosis, and to identify key characteristics of these experiences. The qualitative method “Grounded Theory” (Glaser & Strauss, 1967) was employed as it worked inductively from the data. Seventeen participants (eight service users with psychosis, nine psychiatrists) were interviewed. Five higher-order categories and 47 categories were identified and are displayed in a model entitled “A disturbing journey to and from detention”. This small-scale qualitative study achieved its objectives, exploring compulsory admission experiences (under the MHA 1983/2007) of service users with psychosis in England, and identified key characteristics of these experiences. Service and clinical implications are highlighted, with scope for further research. http://bit.ly/1Q0ydca
**Intervention Studies**


[Image of Acceptance and Commitment Therapy concepts]

Depression is one of the major contributors to poorer quality of life among individuals with psychosis and schizophrenia. This study protocol was designed as a pilot trial to determine the parameters of a larger, definitive pragmatic multi-centre randomised controlled trial of Acceptance and Commitment Therapy for depression after psychosis (ACTdp) for individuals with a diagnosis of schizophrenia who also meet diagnostic criteria for major depression. The study protocol was registered before initiating recruitment and was designed as a Parallel-group Randomised Open Blinded Evaluation (PROBE) comparing ACTdp plus standard care (SC) or SC alone. Participants were required to meet DSM-IV-TR criteria for schizophrenia and major depression (confirmed by Structured Clinical Interview for DSM/SCID-I & Calgary Depression Scale for Schizophrenia; score > 7). Blinded follow-ups are undertaken at 5 months (end of treatment) and at 10 months (5 months post treatment). The pilot aims to establish the basis for a larger-scale multi-centre randomised controlled trial of ACTdp. The most important study outcomes that will provide the basis of informing progression to a full trial are identified a priori as Population, Intervention, Control and Outcomes (PICO). [http://bit.ly/1WeEQtU](http://bit.ly/1WeEQtU)

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A previous longitudinal study in rural New Hampshire showed that community mental health center clients with co-occurring schizophrenia-spectrum and substance use disorders (SZ/SUD) improved steadily and substantially over 10 years. The current study examined 7 years of prospective clinical and functional outcomes among inner-city Connecticut (CT) community mental health center clients with SZ/SUD. Participants were 150 adults with SZ/SUD, selected for high service needs, in 2 inner-city mental health centers in CT. Initially, all received integrated mental health and substance abuse treatments for at least the first 3 years as part of a clinical trial. Assessments at baseline and yearly over 7 years measured progress toward 6 target clinical and functional outcomes: absence of psychiatric symptoms, remission of substance abuse, independent housing, competitive employment, social contact with non-users of substances, and life satisfaction. The CT SZ/SUD participants improved significantly on 5 of the 6 main outcomes: absence of psychiatric symptoms (45%–70%), remission of substance use disorders (8%–61%), independent housing (33%–47%), competitive employment (14%–28%), and life satisfaction (35%–53%). Only social contact with non-users of substances was unimproved (14%–17%). Many urban community mental health center clients with SZ/SUD and access to integrated treatment improve significantly on clinical, vocational, residential, and life satisfaction outcomes over time, similar to clients with SZ/SUD in rural areas. Thus, the long-term course for people with SZ/SUD is variable but often quite positive. [http://bit.ly/1RPVtLG](http://bit.ly/1RPVtLG)