

empathy deficits occur before illness-onset in those at 'ultra-high risk' of psychosis (UHR) and those with a 'first-episode of psychosis' (FEP). Empathy defects are associated with neurological abnormalities, which have been studied separately in UHR, FEP and SCZ populations. This review aims to gain further insight into neurological changes associated with illness progression, by comparing brain changes associated with empathy across UHR, FEP and SCZ populations.

Methods: Studies considering functional activity, connectivity and structural changes in UHR, FEP and SCZ populations were systematically reviewed. Data from 26 studies was used.

Results: All three subgroups showed abnormal patterns of activation and connectivity across a range of regions, particularly in the frontal, limbic and temporal areas. Structural abnormalities appeared as widespread grey matter loss, largely in the temporal lobe, across all three participant groups. Notably, impaired empathic behavioural responses were found in FEP and SCZ subjects only, despite abnormal brain patterns in all three groups.

Discussion: Our findings suggest that abnormal connectivity, structure and activation of the frontal, limbic and temporal areas contribute significantly to empathy deficits, and also worsen with illness progression. However, the multifaceted nature of empathy means that behavioural impairments likely result from a combination of disruptions of the frontal, limbic and temporal areas as well as many other neural networks involved in social information processing.

F247. INTERNALIZED STIGMA HAS A STRONGER RELATIONSHIP WITH INTRINSIC MOTIVATION COMPARED TO AMOTIVATION IN EARLY PHASE AND PROLONGED SCHIZOPHRENIA

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Background: Motivation deficits predict decreased functioning in schizophrenia. Recent work suggests deficits reflect challenges in separate domains: intrinsic motivation (one's internal drive to engage in a behavior out of enjoyment or interest) and amotivation (one's broader decrease in motivated behavior linked to avolition and anhedonia). Internalized stigma is another determinant of functioning for people with schizophrenia that may impact motivation. However, little is known about these relationships, including which aspects of motivation it may impact nor when these links emerge. Identifying the link between these constructs may help to identify whether internalized stigma may be a novel treatment target to facilitate improvements in motivation.

Methods: Forty adults with early phase schizophrenia and 66 adults with prolonged schizophrenia completed measures of internalized stigma, intrinsic motivation, and amotivation. Pearson's correlations were examined followed by Fischer's *r*-to-*z* transformations to compare differences in the magnitude of associations between internalized stigma and intrinsic motivation and internalized stigma and amotivation among the first episode and prolonged samples. Next, we conducted stepwise regressions to examine whether internalized stigma was associated with intrinsic motivation above and beyond associations with amotivation in each sample.

Results: In the early phase sample, the association between internalized stigma was greater with intrinsic motivation ($r=-0.48$, $p=.00$) compared to amotivation ($r=0.27$, $p=0.10$). Associations with internalized stigma in the prolonged sample were also greater with intrinsic motivation ($r=-0.30$, $p=0.02$) versus amotivation ($r=0.19$, $p=0.12$). The magnitude of the associations between internalized stigma and intrinsic motivation ($z=1.03$, $p=0.15$) and between internalized stigma and amotivation ($z=0.41$, $p=0.34$) did not significantly differ when comparing phase of illness. Regression analyses indicated that, controlling for amotivation,

internalized stigma predicted intrinsic motivation in both the prolonged sample ($R^2=0.09$, $F(1,64)=6.18$, $p=0.02$) and the early phase schizophrenia sample ($R^2=0.23$, $F(1,37)=10.98$, $p=.00$).

Discussion: Results suggest internalized stigma has a stronger relationship with intrinsic motivation separate from, and above and beyond, its association with amotivation. Findings support models of intrinsic and amotivation being distinct domains. Links between internalized stigma and motivation appear to emerge and persist from the early stages of schizophrenia, suggesting that targeting stigma in early intervention services may help to improve intrinsic motivation in people with schizophrenia.

F248. COMMUNICATIVE-PRAGMATIC IMPAIRMENT IN SCHIZOPHRENIA: THE ROLE OF EXECUTIVE FUNCTION AND THEORY OF MIND

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Background: Individuals with schizophrenia frequently exhibit a wide range of communicative-pragmatic disorders. Previous studies reported deficits in the comprehension of non-literal and figurative forms of language, such as indirect speech acts, deceit, irony, metaphors and idioms, as well as deficits in conversational and narrative skills. Moreover, schizophrenia is often associated with impairment in cognitive functions, such as Executive Functions (EF) and Theory of Mind (ToM). Few studies examined at the same time the role that ToM and EF can play in the comprehension of different communicative acts, such as sincere communicative acts, deceit and irony. Thus, the relation between ToM, EF and pragmatic ability in schizophrenia is still not completely clear. The aim of this study is to evaluate the relationship between the ability to manage different communicative pragmatic phenomena (i.e., sincere, deceitful and ironic communicative acts), and ToM and EF.

Methods: 26 individuals with schizophrenia and 26 matched controls took part in the study. We evaluated communicative pragmatic-ability using the linguistic and extralinguistic scales of the Assessment Battery for Communication (ABaCo). We assessed EF - working memory, inhibition and cognitive flexibility-, ToM and background cognitive functions - general intelligence, selective attention and speed processing - using a battery of standardized neuropsychological tests.

Results: To investigate the presence of significant differences in communicative-pragmatic performance between patients and controls, we performed a 2x3 ANOVA with participant (individuals with schizophrenia, healthy control) as between-subjects factor, and the type of pragmatic phenomena (sincere, deceitful and ironic) as within-subjects factor. For each of the ABaCo subscales, we found a main effect of participant ($.0001 < p < .001$), showing that experimental group performed significantly worse than control group. We also found a linear trend in pragmatic performance ($.0001 < p < .008$), that revealed a linear decrease in scores depending on the pragmatic phenomenon investigated: sincere communicative acts were the easiest to understand, followed by deceit and irony. To evaluate the role of cognitive and ToM tasks on pragmatic performance in patients, we performed a regression analysis. We included relevant predictors in the model, i.e. cognitive background factors, EF and ToM. We found that the only significant predictor was ToM, that contributed to increase the quote of explained variance in the comprehension and production of linguistic sincere communicative acts ($p = .005$) and linguistic deceit ($p = .009$).

Discussion: Results showed that individuals with schizophrenia performed poorly in the comprehension and production of different kinds of pragmatic phenomena, i.e. sincere, deceitful and ironic communicative acts. This result confirms that communicative-pragmatic impairment is a core deficit in schizophrenia. In addition, we found an association between ToM and comprehension and production of sincere and deceitful communicative