

genetic risk variants. Classification into phenotype-driven subgroups or endophenotypes is expected to facilitate genetic analysis. Here, we report a teen boy with chronic psychosis and cerebellar hypoplasia (CBLH) and analyze data on 16 reported individuals with SCZ or chronic psychosis not otherwise specified associated with cerebellar hypoplasia to look for shared features.

Participants and Methods: We evaluated an 18-year-old boy with neurodevelopmental deficits from early childhood and onset of hallucinations and other features of SCZ at 10 years who had mild vermis-predominant CBLH on brain imaging. This prompted us to review prior reports of chronic psychosis or SCZ with cerebellar malformations using paired search terms including (1) cerebellar hypoplasia, Dandy-Walker malformation, Dandy-Walker variant, or mega-cisterna magna with (2) psychosis or SCZ. We found reports of 16 affected individuals from 13 reports. We reviewed clinical features focusing on demographic information, prenatal-perinatal history and neuropsychiatric and neurodevelopmental phenotypes, and independently reviewed brain imaging features.

Results: All 17 individuals had classic psychiatric features of SCZ or chronic psychosis as well as shared neurodevelopmental features not previously highlighted including a downward shift in IQ of about 20 points, memory impairment, speech-language deficits, attention deficits and sleep disturbances. The brain imaging findings among these individuals consistently showed posterior vermis predominant CBLH with variable cerebellar hemisphere hypoplasia and enlarged posterior fossa (a.k.a. mega-cisterna magna). None had features of classic DWM.

Conclusions: In 17 individuals with chronic psychosis or SCZ and cerebellar malformation, we found a high frequency of neurodevelopmental disorders, a consistent brain malformation consisting of posterior vermis-predominant (and usually symmetric) CBLH, and no evidence of prenatal risk factors. The consistent phenotype and lack of prenatal risk factors for CBLH leads us to hypothesize that psychosis or schizophrenia associated with vermis predominant CBLH comprises a homogeneous subgroup of individuals with chronic psychosis/schizophrenia that is likely to have an underlying genetic basis. No comprehensive targeted gene panel for CBLH has yet been defined, leading us to recommend

trio-based exome sequencing for individuals who present with this combination of features.

Categories: Schizophrenia/Psychosis

Keyword 1: cerebellum

Keyword 2: brain development

Keyword 3: genetics

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67 Examination of Neuropsychological Functioning and Current Suicidal Ideation and Suicide Attempt History in Individuals with Severe Mental Illness

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Objective: Suicide risk among individuals with psychosis is elevated compared to the general population (e.g., higher rates of suicide attempts [SA] and completions, more severe lethality of means). Importantly, suicidal ideation (SI) seems to be more predictive of near-term and lifetime SAs in people with psychosis than in the general population. Yet, many randomized controlled trials in psychosis have excluded individuals with suicidality. Additionally, research suggests better cognitive and functional abilities are associated with greater suicide risk in psychotic disorders, which is dissimilar to the general population, but studies examining the link between cognition and suicidality are scarce. Because neuropsychological abilities can affect how individuals are able to attend to their environment, solve problems, and inhibit behaviors, further work is needed to consider how they may contribute to suicide risk in people

with psychotic disorders. We sought to examine associations between neuropsychological performance and current SI and SA history in a large sample of individuals with psychosis.

Participants and Methods: 176 participants with diagnoses of schizophrenia, schizoaffective disorder, and bipolar disorder with psychotic features completed clinical interviews, a neuropsychological assessment (MATRICS Consensus Cognitive Battery subtests), and psychiatric symptom measures (Positive and Negative Syndrome Scale [PANSS]; Montgomery-Asberg Depression Rating Scale [MADRS]). First, participants were divided into groups based on their current endorsement of SI in the past month on the Colombia Suicide Severity Rating scale (C-SSRS): those with current SI (SI+; $n=86$) and without current SI (SI-; $n=90$). We also examined lifetime history of SA ($n=114$) vs. absence of lifetime SA ($n=62$). Separate t-tests, chi-square tests, and logistic regressions were used to examine associations between neuropsychological performance and the two dichotomous outcome variables (current SI; history of SA).

Results: The SI groups did not differ on diagnosis, demographics (e.g., age, gender, race, ethnicity, years of education, premorbid functioning), or on positive and negative symptoms. The SI+ group reported more severe depressive symptoms ($t(169)=-5.90$, $p<.001$) and had significantly worse performance on working memory tests than the SI- group ($t(173)=2.28$, $p=.024$). Logistic regression revealed that working memory performance uniquely predicted current SI+ group membership above and beyond depressive symptoms ($B=-.040$; $OR=.96$; 95% CI [.93, .99]; $p=.034$).

The SA groups did not significantly differ on demographic variables or on positive/negative symptoms, but those with a history of SA had more severe depressive symptoms ($t(169)=-2.80$, $p=.006$) and worse performance on tests of working memory ($t(173)=2.16$, $p=.033$) and processing speed ($t(166)=2.28$, $p=.024$) than did those without a history of SA. Logistic regression demonstrated that after controlling for depressive symptom severity, working memory and processing speed did not predict unique variance in SA history ($p=.25$).

Conclusions: Worse working memory performance was associated with SI in the past month in individuals with psychotic disorders. Although our finding is consistent with literature in other psychiatric populations, it conflicts with

existing psychosis literature. Thus, a more nuanced examination of how cognition relates to SI/SA in psychosis is warranted to identify and/or develop optimal interventions.

Categories: Schizophrenia/Psychosis

Keyword 1: cognitive functioning

Keyword 2: psychosis

Keyword 3: working memory

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68 Neurocognitive Functioning and Symptoms of Psychosis in Precariously Housed Adults with Multimorbidity

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Objective: In persons with severe psychiatric disorders, distinct neurocognitive profiles hold differential associations to positive, negative and disorganized symptom dimensions of psychosis. These patterns portend specific functional outcomes, treatment efficacy, and prognoses. Similar associations have not been established in multimorbid samples in which persons present with a complex array of psychiatric symptoms. The objective of this study was to (1) establish neurocognitive profiles in a multimorbid, marginalized sample and (2) investigate their pattern(s) of association with psychiatric symptom dimensions and psychosocial outcomes.

Participants and Methods: Participants ($n=370$; $M_{age}=45$ years; 74% male) were precariously housed, substance-using adults with multimorbidity, recruited from Single-Room Occupancy hotels and a community court within