Two exploratory factor analyses of the PBI were conducted on maternal items and paternal items (oblimin rotation). PBI factor scores were calculated for each individual and compared across groups using one-way ANOVA. Multivariate backward regressions were conducted to elucidate the association(s) between parental bonding factors and the clinical scales.

Results: Factor analyses revealed three-factor solutions for both maternal and paternal items, with factors ‘care’, ‘autonomy’, and ‘overprotection’. All the original ‘care’ items loaded onto the ‘care’ factor for maternal and paternal analyses. The original ‘control’ items were split into ‘autonomy’ (the degree to which children were allowed to make their own decisions, e.g. ‘gave me as much freedom as I wanted’) and ‘overprotection’ (e.g. ‘felt I could not look after myself’). Fit statistics suggested a good fit for both maternal and paternal items (CFI > 0.9, TLI > 0.9). UHR were 1.61 times as likely to report affectionless-controlling mothers (OR = 1.61, 95% CI: 1.13–2.30, p = .008) and 0.52 times as likely to report having optimal mothers (OR = 0.52, 95% CI: 0.29–0.93, p = 0.028). No significant differences in paternal styles were reported.

Compared to HC, patients and UHR reported significantly lower maternal care (F(2,729) = 27.51, p < .001), higher maternal overprotection (F(2,729) = 17.00, p = .001) and paternal overprotection (F(2,711) = 9.30, p < .001) (bonferroni-corrected). Among UHR, higher paternal overprotection was significantly associated with higher total PANSS scores (β = .162, p = .045), higher PANSS general psychopathology subscores (β = .185, p = .022), lower GAF scores (β = -.188, p = .021), lower SOFAS scores (β = -.183, p = .024), and worse CDSS scores (β = .210, p = .009). Among patients, higher maternal overprotection (β = .444, p = .023) and paternal care (β = .400, p = .036) were associated with higher GAF functioning.

Discussion: This psychometric investigation of the PBI among Asian participants yielded three-factor models, which deviate from the original two factors. Our findings replicate previous evidence of higher proportion of affectionless-controlling mothers among UHR and patients. Lower maternal care, lower maternal and paternal overprotection were reported. Paternal overprotection was associated with worse positive and negative symptoms of schizophrenia, worse social, occupational, and psychological functioning, and more severe depressive symptoms among UHR. Our results highlight the importance of addressing childhood parental bonding issues in early intervention services for UHR.

T29. ELECTRORETINOGRAPHIC RESPONSE IN YOUTHS AT GENETIC RISK OF SCHIZOPHRENIA AND BIPOLAR DISORDER AND IN NORMAL CONTROLS: TRANSVERSAL AND LONGITUDINAL DIFFERENCES AND IMPLICATIONS FOR THE RISK TRAJECTORY

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Background: Visual defects have been widely reported in major psychosis. This includes altered eye tracking, retinal thinning and electrophysiological anomalies. One of the most replicated alterations is decreased electroretinographic (ERG) responses that are observed in both bipolar disorder and schizophrenia. Our previous study showed a diminished rod b-wave amplitude in a small sample of children born to an affected parent.1 The fact that an anomaly found in patients would also be observed in children at genetic risk suggests a neurodevelopmental origin and may represent a vulnerability marker. Little data exists on the stability of ERG measures over time. A recent study has shown an increased variability of rod amplitude over time in the offspring of affected parents.

Methods: ERGs of 71 offspring (mean age of 19 y.o.) and 224 healthy controls (mean age of 20 y.o.) were recorded. From this sample, 33 HR and 26 healthy controls had ERG recordings at 2 different moments (mean interval of 4 years). We then compared the amplitudes obtained at Time 1 and Time 2 in order to assess whether the ERG amplitudes remained stable or varied over time.

Results: Congruent with our 2010 report, this larger HR sample showed a reduced rod b-wave amplitude (p<.05). Possibly due to higher statistical power, two other differences were found: an increased cone b-wave latency (p<.05) as well as a diminished mixed rod/cone ERG amplitude (p<.05).

Discussion: These young high-risk offspring displayed three ERG anomalies that we have already reported in adult patients.2 Our finding bolstered the evidence that ERG anomalies observed in patients may have neurodevelopmental or childhood roots. We observed only little variation in the ERG of the healthy controls over time in that early age range and this appears concordant with existing literature. Of particular interest is the finding that rod b-wave amplitudes were diminished in patients and in offspring. The offspring also showed increased variability over time in comparison to controls. Future studies will seek to understand the relationship between the transversal or longitudinal patterns of rod b-wave amplitudes, as an indicator of risk, and the risk endophenotypes previously reported in the children born to an affected parent.1

References: 1. Gagné et al. Prog Neuropsychopharmacol Biol Psychiatry. 2015 2. Hébert et al. Bill Psychiatry, 2010 3. Maziade, N Eng J Med, 2017 4. Paccalet et al., Schizophr Res, 2016

T30. TIPPING POINTS – PREDICTING TRANSITIONS TO PSYCHOSIS IN AT-RISK YOUNG PEOPLE

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Background: In traditional psychosis prediction research, the assumption is that a single “snapshot” of clinical disturbance at time point one (i.e., follow-up). This is a linear, static approach to psychosis prediction. However, the field increasingly recognizes that mental health behaves as a non-linear, dynamic system, common to other complex structures such as ecosystems, financial markets or the climate.

Methods: Increasing evidence points toward the existence of generic “tipping points” in these complex dynamic systems. A tipping point refers to a critical threshold whereby a system shifts from one state into another. Evidence suggests there are universal early warning signals/resilience indicators (such as a phenomenon called ‘critical slowing down’), which predict close proximity to a critical tipping point.

Results: There is growing evidence for the presence of these early warning signals in psychopathology. This presentation will introduce theoretical concepts of tipping points and resilience indicators in the context of transitioning from at-risk mental state to frank psychosis.