Brain imaging studies in Asian children

Mo-S-249
Effect of childhood emotional maltreatment on brain development: DTI study
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Several studies have shown that exposure to childhood abuse is associated with alterations in brain structure and function. We sought to ascertain whether childhood emotional maltreatment such as parental verbal abuse, witnessing domestic violence was associated with abnormalities in white matter tract integrity using diffusion tensor imaging. First study explored 16 unmedicated subjects with history of high-level exposure to parental verbal abuse but no other form of maltreatment and 16 healthy control subjects, showing abnormalities in arcuate fasciculus, cingulum bundle, and the fornix, which were associated with verbal IQ and many psychiatric symptoms. The second study included 20 subjects who had a history of high-level exposure to parental verbal abuse but no other form of maltreatment and 16 healthy control subjects, showing abnormalities in arcuate fasciculus, cingulum bundle, and the fornix, which were associated with verbal IQ and many psychiatric symptoms. The second study included 20 subjects with a history of high-level exposure to parental verbal abuse but no other form of maltreatment and 16 healthy control subjects, showing abnormalities in arcuate fasciculus, cingulum bundle, and the fornix, which were associated with verbal IQ and many psychiatric symptoms. The second study included 20 subjects who had a history of high-level exposure to parental verbal abuse but no other form of maltreatment and 16 healthy control subjects, showing abnormalities in arcuate fasciculus, cingulum bundle, and the fornix, which were associated with verbal IQ and many psychiatric symptoms. The second study included 20 subjects with a history of high-level exposure to parental verbal abuse but no other form of maltreatment and 16 healthy control subjects, showing abnormalities in arcuate fasciculus, cingulum bundle, and the fornix, which were associated with verbal IQ and many psychiatric symptoms.

http://dx.doi.org/10.1016/j.neurenf.2012.05.241

Mo-S-250
Control network in children with attention deficit hyperactivity disorder – resting-state functional connectivity MRI study
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Despite extensive imaging research on attention-deficit hyperactivity disorder (ADHD), whether the frontoparietal control network, which underpins cognitive control, is involved in neurobiological mechanisms of ADHD remains unexplored. The authors investigated the functional connectivity of the frontoparietal control network in 16 medication-naïve children with ADHD (8–13 years, mean age 10.13 ± 1.75; 14 boys) and 16 age-, sex-, IQ-, and handedness-matched typically developing children. The data of the resting-state blood oxygenation level dependent functional MRI was collected from 3T-MRI system. The results showed that children with ADHD had weaker connectivity within the frontoparietal network, including connectivity between the left caudal body and bilateral insula, and between the left anterior prefrontal cortex and the superior frontal gyrus than typically developing children. Our finding of aberrant connectivity within the frontoparietal network in ADHD warrants further correlations with clinical symptoms and neuropsychological profiles to explore the biological underpinnings of the disorder.

http://dx.doi.org/10.1016/j.neurenf.2012.05.244

Mo-S-251
Transdisciplinarity and various medical cultures: Care of young children or teenagers with serious disease in China, Italy and France
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The care of young children with serious disease need different medical specialities, and complementary ways of thinking:
– to help these children use their possibilities in the best way;
– and to sustain the families in looking at this special child like a child with an own rhythm in his evolution and not only as a handicapped child.
We shall take account of our different clinical experiences and way of working in our different countries, and use some clinical examples to show how working in an institution with a pluridisciplinarity staff, and in transdisciplinarity is important. In another sense, according to some clinical experiences, we could show that working uniquely in the institution can limit the way we look on the children and their possibilities, and that having an intervention from outside of the institution can give support and advice to the staff on very difficult situations.

http://dx.doi.org/10.1016/j.neurenf.2012.05.243

Mo-S-255
Sparx: A fantasy based game to treat depression
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By the age of 19, one in five adolescents will have suffered from a depressive disorder; however, most do not receive treatment. Computerised therapy has the potential to help adolescents with depression because this form of treatment can be delivered flexibly and at low cost. SPARX is an interactive 3D fantasy game designed to deliver cognitive behavioural therapy (CBT) in a computerised format (CCBT). It was developed with the help of young people. SPARX was designed for 13 to 18 year olds with mild to moderate depressive symptoms and it has been formally evaluated in a randomised controlled trial (RCT) comparing CCBT with treatment as usual (TAU) in 24 sites in New Zealand (n = 187). The results of the RCT have shown that SPARX is at least as effective as usual treatment where trained therapists delivered TAU. This presentation will provide a brief overview of the development of SPARX and the results of the RCT before discussing user feedback and allowing workshop attendees to use SPARX.

http://dx.doi.org/10.1016/j.neurenf.2012.05.244