The Neuroscience in Psychiatry Network

a large, longitudinal, developmental cohort of young people in the UK

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Overview

- Mental health disorders are the leading cause of years lived with disability worldwide and many emerge in the second and third decades of life.
- The Neuroscience in Psychiatry Network was established in July 2012 through a collaboration between the University of Cambridge and University College London supported by a strategic award by the Wellcome Trust.
- We sought to link normal and psychopathological variation at the behavioural, cognitive and socio-emotional level to phenotypic variation at the level of brain systems.
- We eschewed the traditional division between adult and child/adolescent psychiatry by recruiting participants between 14 and 24 years old using an accelerated longitudinal design.

Here, we present the study design and the data that has been collected along with plans for its open access and reuse by the adolescent mental health research community.

NSPN 2400 Cohort

- The NSPN 2400 cohort is a general population sample of 2403 age- and sex-stratified participants.
- Each participant has a Questionnaire pack of self-report instruments to measure common mental health constructs.
- Longitudinal questionnaire data is available for 384 participants at two time points and 1134 at three time points.
- Although the NSPN 2400 cohort is a volunteer sample, it is broadly representative of the England & Wales youth, as compared to 2011 census data prepared and released by the Office for National Statistics.

UCHANGE Cohort

- A subsample of the NSPN 2400 cohort were invited to participate in the Life Longitudinal Assessment & Characterising Healthy Adolescent- to-Adult Neurodevelopmental Growth Effects (U-CHANGE) study.
- This incorporated an in-unit assessment for 772 participants who had no history of psychiatric illness.
- We assessed cognitive and social functioning using computer-based evaluations and clinical interviews.
- One year later 484 participants returned for follow up assessments.
- Around half of the U-CHANGE cohort completed a magnetic resonance imaging (MRI) scan of brain structure and resting state functional connectivity (Baseline: N=318; follow up: N=234).

NCAPS Cohort

- The Neuropsychiatric Clinical Adolescent To Adult Psychopathology Studies (NCAPS) cohort extends our understanding from typically developing members of the general population to people who have received, or are at high risk of receiving, a diagnosis of major depressive disorder (MDD).
- They completed the same interview and questionnaire assessments as members of the U-CHANGE study.
- The NCAPS MRI cohort complete a functional MRI social interaction (Cyball) task instead of a diffusion weighted imaging scan.
- To date, NCAPS consists of 81 members of the NSPN 2400 cohort who have consistently low or high scores on the mood and feelings questionnaire at two timepoints, 61 young people from the ROOTS cohort study and 86 patients with a current diagnosis of MDD.

Data Management

- The NSPN Consortium is dedicated to ensuring that validated data from the NSPN 2400, UCHANGE and NCAPS cohorts are available for reuse by researchers seeking to better understand adolescent development and the etiology of mental health disorders.
- Processes to share data to support new analyses will be available by the end of 2017 to verified researchers.

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