

## Supplementary Online Content

Meier SM, Petersen L, Pedersen MG, et al. Obsessive-compulsive disorder as a risk factor for schizophrenia: a nationwide study. *JAMA Psychiatry*. Published online September 3, 2014. doi:10.1001/jamapsychiatry.2014.1011.

**eTable.** Schizophrenia Spectrum Disorders

**eAppendix.** Data Analysis

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable.** Schizophrenia Spectrum Disorders

Schizophrenia
Schizotypal disorder
Delusional disorders
Brief psychotic disorder
Shared psychotic disorder
Schizoaffective disorders
Other psychotic disorder
Unspecified psychosis
Schizoid personality disorder
Paranoid personality disorder

**eAppendix.** Data Analysis

The data were analyzed using a survival analysis approach. Cohort members were followed from their 10<sup>th</sup> birthday or January 1, 1995 (whichever occurred latest) until the onset of schizophrenia or a schizophrenia spectrum disorder, date of death, date of emigration from Denmark, or December 31, 2012, whichever occurs first. The incidence rate ratio (IRR - a measure of relative risk) of schizophrenia was estimated with a log linear Poisson regression model using the GENMOD procedure in SAS, version 9.3 (SAS Institute, Cary, N.C., USA). This method approximates a Cox regression and allows adjustment for several potentially confounding factors. All analyses were adjusted for calendar year, age, maternal and paternal age, sex, place of residence at time of birth (as described elsewhere<sup>29</sup>) and the interaction of age with sex. In the analyses exploring whether patients with a diagnosis of OCD display an enhanced risk for schizophrenia/schizophrenia spectrum disorders, age, calendar year, psychiatric family history, the occurrence of an OCD diagnosis, and the first hospital contact for other any psychiatric disorder of the patient were treated as time dependent variables, whereas all other variables were considered time independent. Similarly, in the analyses regarding the effect of parental OCD, age, calendar year, the occurrence of a parental OCD diagnosis, and family history of other psychiatric disorders were treated as time dependent variables, whereas all other variables were considered time independent. Maternal or paternal diagnoses were categorized hierarchically as having a history of OCD, schizophrenia,

schizophrenia spectrum disorders or other psychiatric disorders. Parental diagnoses were defined as present if at least one of the parents had a history of OCD, schizophrenia, schizophrenia spectrum disorders or other psychiatric disorders. The analyses were adjusted for first other psychiatric hospital contacts, as we aimed to explore whether psychiatric hospital contacts per se or the more specific diagnosis of OCD increase the risk to develop schizophrenia and schizophrenia spectrum disorders. To further explore the specific effect of a prior diagnosis of OCD on the risk to develop schizophrenia later in life, we compared the incidence rate ratios after a prior diagnosis of OCD to the incidence rate ratios after a prior diagnosis of other childhood onset disorders such as attention deficit hyperactivity disorder and autism, both being reported to predict later onset of schizophrenia<sup>30-33</sup>. We also assessed the effect of a prior diagnosis of bulimia nervosa, as the age of onset of patients with this diagnosis was comparable to that of patients with OCD. The p values and 95% confidence intervals (CIs) were based on likelihood ratio tests. The IRR was calculated using log-likelihood estimation. IRRs with non-overlapping CIs were considered significantly different.