Risk factors of neuropsychiatric disorders and symptoms of depression in Swedish children aged 6-17
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Background
Neuropsychiatric (ND) and depression disorders (DD) are a major public health problem in older children and adults; to the best of our knowledge there is a lack of evidence for younger children. We aim to study the impact of specific risk factors on MD in Swedish children 6–17 years old.

Methods
The database includes data from health examinations on pupils aged 6, 10, 13 and 16 in the county of Värmland, Sweden. Data from two school years (2013/14) was available for uni- and multivariate analyses, stratified by grade and sex, on the relationship between ND, DD, different symptoms of DD with a set of predefined explanatory variables: physical illnesses, impairment, social network, aspects at school and at home.

Results
6-years old: (n = 4794) 16 (n = 4564) were 315 (7.2%) and 379 (8.3%); for symptoms of DD 382 (8.7%), 788 (17.2%); and for DD 4 (0.1%), 48 (1.0%) respectively. Male sex increased the likelihood of 2–3 times for ND in all age groups as well as not living with both parents, few friends at school, less physical activity and older age.

The risk of DD and symptoms of DD was increased in pupils with ND in crude analyses and adjusted for gender (e.g. grade 4 ADHD/ADD: Odds ratios (OR) 3.0, 95% CI 1.9-4.5; aOR 3.1, CI 2.0-4.6); in pupils with asthma, allergy, speech problems and visual impairment. Stratified analyses showed that after puberty, a larger proportion of girls had symptoms of and DD.

Conclusion
Symptoms of DD occurred earlier compared to diagnoses of DD. Physical diseases and impairments were related to DD and symptoms of DD; a weak social network and male sex were associated with ND. Interventions targeting younger children with physical illnesses, weak social network and symptoms of DD might prevent consequences of ND and DD in childhood.

Key messages
- Depressive symptoms occur earlier compared to diagnoses of depression and Neuropsychiatric disorder
- Depressive disorders and symptoms of, is probably under-diagnosed in younger children; the clinical impact of symptoms of depressive disorder needs to be further explored