

## About 7% of 4-year-olds in Norway meet criteria for a psychiatric diagnosis



### QUESTION

**Question:** How common are psychiatric disorders in preschoolers in Norway?

### EDITOR'S CHOICE

**Population:** 2475 children born in 2003 or 2004 who attended the regular community health check-up for 4-year-olds and whose parents consented to take part in the study. Of the 3456 children born in the city in 2003 and 2004, 71.6% participated.

**Setting:** General community, Trondheim, Norway; 2007–2008.

**Assessment:** The Strengths and Difficulties Questionnaire (SDQ) was used as a screening tool to identify behavioural and emotional problems. On the basis of SDQ score, children were stratified and a random sample drawn from each strata for a structured diagnostic interview, with a higher proportion of those with more problems selected (37% of those scoring 0–4 selected; 48% of those scoring 5–5; 70% of those scoring 9–11; 89% of those scoring 12–40). Of the 1250 children selected, the parents of 995 completed the Preschool Age Psychiatric Assessment interview to assess the past 3 months. Assessment of disability relating to the symptoms was based on the World Health Organisation International Classification of Functioning, Disability and Health. Diagnoses were made using a computer algorithm based on Diagnostic and Statistical Manual of Mental Disorders-IV criteria. Weighted analyses were used to calculate general population estimates from the results in the interview sample. Parental occupations were classified using the International Labour Office International Classifications of Occupations, with professionals and leaders classed as having high socioeconomic status (SES), and farmers/fishermen, skilled and unskilled workers classes as having low SES. For cohabiting parents the profession of the highest SES occupation was chosen.

**Outcomes:** Psychiatric disorders.

### METHODS

**Design:** Cross sectional study.

Wichstrøm and colleagues provide the largest epidemiological study of preschool psychiatric disorders available to date to use an age-appropriate interviewer-based diagnostic assessment. This study significantly advances the small but growing literature on the prevalence of discrete Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) psychiatric disorders in preschoolers. The study confirms findings that Axis I disorders can be identified in children aged 2–6 and should add significant strength to the increasing public health emphasis on the identification of risk at the earliest possible developmental point (Shonkoff *et al.*, 2009). Study findings should also further dispel dogmatic resistance to infant/preschool mental health that has been salient historically.

However, more intriguingly, and arguably the most important result of this work, is the finding of

substantially lower prevalence rates of most psychiatric disorders in this Norwegian preschool sample compared to rates derived from comparable US samples. While methodological variation is considered, the most likely sources of the disparity would seem attributable to the sharp differences in psychosocial risk and protective factors between the two populations.

Consistent with an established literature demonstrating lower rates of psychiatric disorders in older children in Scandinavian versus US samples, the finding that this discrepancy can be detected even earlier in life has tremendous public health importance. The stark disparity in preschool prevalence rates suggest important psychosocial forces at play contributing to the onset and stability of mental disorders. The social contributors to these cultural differences should now be scientifically investigated as they are likely to provide clues to the aetiology and developmental psychopathology of

childhood psychiatric disorders. If such sources can be identified, they may have important implications for efforts to optimise early environments to prevent the onset of mental disorders. These findings underscore the importance of infant/preschool mental health to relieve the suffering of young children and to inform the developmental aetiologies of what often become chronic disorders.

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**Competing interests** None.

### REFERENCE

1. Shonkoff JP, Boyce WT, McEwen BS. Neuroscience, molecular biology and the childhood roots of health disparities: Building a new framework for health promotion and disease prevention. *JAMA* 2009;**301**:2252–9.

### MAIN RESULTS

The estimated population 3 months prevalence of any psychiatric disorder (excluding encopresis) among 4-year-olds was 12.5%. Encopresis was the most common diagnosis (6.4%), and excluding this the 3 months prevalence of any psychiatric disorder was 7.1%. The most common disorders other than encopresis were depressive disorders (2.0%, includes major depressive disorder, depression not otherwise specified and dysthymia), attention deficit hyperactivity disorder (ADHD, 1.9%), oppositional defiant disorder (ODD, 1.8%), anxiety disorders (1.5%, included separation anxiety, social and specific phobia), and conduct disorder (0.7%). Comorbidity among disorders was common. For example, among those with conduct disorder, 37.7% had ADHD, and 49.1% had ODD. More emotional and behavioural disorders were seen in children whose parents did not live together and in those of low socioeconomic status (4.7% in children of cohabiting parents vs 13.3% in children of non-cohabiting parents,  $p < 0.001$ ; 4.7% in children of 'leaders and professionals' vs 11.9% in children of 'workers',  $p < 0.001$ ). Boys more often had ADHD and depressive disorders than girls (ADHD: 2.4% in boys vs 1.5% in girls,  $p = 0.03$ ; depressive disorders: 2.6% in boys vs 1.5% in girls,  $p = 0.04$ ).

### CONCLUSIONS

The prevalence of psychiatric disorders among preschoolers in Norway is estimated to be 7.1% (excluding encopresis). This is lower than in previous studies from the USA. Comorbidity was frequent and there was a male preponderance in ADHD and depression at this early age.

### ABSTRACTED FROM

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