Prevalence of autism in Europe, North America and Oceania, 2000-2020: A systematic review

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Background
Since the first study of the prevalence of autism spectrum disorder (ASD) in 1966, several studies from across the world have reported increasing prevalence of ASD in children. This has led to a debate whether childhood ASD cases are increasing in real time or the increase is essentially due to improved accessibility/referral to health services or changes in diagnostic criteria and accuracy.

Methods
MEDLINE and PSYCINFO databases were searched for studies of ASD prevalence estimates in Europe, North America and Oceania published during 2000-2020 (including prevalence data for 1993-2019). Data including age at diagnosis, gender, ethnicity, diagnostic criteria/tools, method(s) of case detection and prevalence per 10,000 population were extracted.

Results
75 studies, reporting a wide range of prevalence estimates, were included in the review. Overall, there was a steady and substantial increase in the prevalence of ASD in Europe, North America and Oceania during the last three decades. For Europe, the median prevalence was 59 per 10,000 population (range, 8 to 420; mean, 80). For North America, the median prevalence was 86 per 10,000 population (range, 11 to 247; mean, 95). For Oceania, the median prevalence was 47 per 10,000 population (range, 10 to 390; mean, 112). Overall, the prevalence was higher in White children compared to other ethnic groups.

Conclusion
It appears that several factors can be attributed to increasing prevalence of ASD in Europe, North America and Oceania. Some of the increase is likely due to increased case ascertainment, but other factors need further investigation to determine the reason(s) for increasing prevalence of ASD.

Key messages
1. There is a wide variation in the prevalence of ASD in populations of Europe, North America and Oceania. This is partly explained by differences in case ascertainment and sociodemographic factors.

2. The differences in prevalence between ethnic groups need further investigation.

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Our abstract: 1922 characters (including spaces) – Background to conclusions.

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