Socioeconomic Inequality in Child Mental Health During the COVID-19 Pandemic: the First Evidence from China

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Background

There is increasing concern that the COVID-19 pandemic will disproportionately affect disadvantaged children, but direct scientific evidence is lacking. We aimed to identify socioeconomic inequality in child mental health together with lifestyle and family environment factors that could influence child mental health during the pandemic.

Methods

This population-based study was conducted with 21,526 children (aged 3-12-years) confined at home for near two months in China during the pandemic. We used parental education and provincial gross domestic product (GDP) per capita as proxies for individual- and population-level socioeconomic status (SES). Child mental health problems were measured with the Strengths and Difficulties Questionnaire (SDQ). Lifestyle and family environment factors included sleep disturbances, physical activity, screen time, primary caregiver, parental mental health, and harsh parenting.

Results

Parental education level from highest (undergraduate and above) to lowest (middle school and below) increased the adjusted odds ratio (OR) for child mental health problems by 42% (OR 95%CI: 1.42[1.29, 1.57]; P<0.001); provincial GDP per capita (RMB) from highest (>¥100K) to lowest (≤¥70K) increased adjusted OR by 41% (1.41[1.28, 1.55]; P<0.001) for child mental health problems.

Sleep disturbances (2.98[2.74, 3.25]; P<0.001), physical activity <1 h/day (1.16[1.09, 1.23]; P<0.001), media exposure ≥2 h/day (1.22[1.14, 1.29]; P<0.001), non-parental care (1.25[1.16, 1.34]; P<0.001), poor parental mental health (2.25[2.10, 2.40]; P<0.001), and harsh parenting (2.06[1.91, 2.23]; P<0.001) were independently associated with an increased risk for child mental health problems, regardless of individual and population SES.

Conclusions

This first evidence from China shows socioeconomic inequalities affecting mental health of children from the poorest regions during the pandemic. As unhealthy lifestyle and unfavorable family environment are contributory factors, immediate interventions and prioritized collective efforts will reduce socioeconomic inequality influencing child mental health problems.