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Long COVID, post-viral fatigue syndrome, and fatigue consultation records in children in England using administrative primary care data

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The impact of post-acute infection syndrome on healthcare use in children is uncertain. This study aims to quantify rates of consultations for long COVID, post-viral fatigue syndrome (PVFS), and fatigue in children in primary care in England, describe trends in recorded cases over time, and explore variations by sociodemographic characteristics.

This retrospective, population-based dynamic cohort study used Clinical Practice Research Datalink Aurum data for children aged <18 years in England, covering 01/01/2006 to 07/06/2023 (from 01/03/2020 for the long COVID outcome). Three outcomes were examined: Long COVID, PVFS, and fatigue, listed in order of decreasing specificity. Consultation rates were calculated per 100,000 child-years for each outcome, stratified by calendar year and sociodemographic characteristics. Monthly consultation rates were calculated to explore seasonality. Multivariable negative binomial regression models were used to model consultation rates to assess time trends, adjusting for age, sex, region, IMD and time period, stratified by month.

The cohort included 7,580,593 children, with 3,762,713 actively registered during the COVID-19 pandemic period (01/03/2020-07/06/2023). A total of 6,950 long COVID, 21,051 PVFS, and 267,402 fatigue consultations were recorded. Consultation rates were higher among older children, girls, and those living in least deprived areas. Consultation rates for long COVID increased from 0.22 per 100,000 child-years in 2020 to a peak of 140 per 100,000 child-years in 2022, decreasing to 22 per 100,000 child-years in 2023. After adjusting for confounders, PVFS consultation rates peaked in March and were highest in 2012-2015 compared to 2006-2008, 2009-2011, 2016-2019, and 2020-2023 time periods. Fatigue consultation rates showed an increase between 2006 and 2019, then a decline in 2020, followed by an increase between 2021 and 2023.

This study highlights overall increasing consultation rates across years for PVFS and fatigue among children in England, with significant sociodemographic and seasonal variations. Recording of long COVID in primary care in children is inconsistent. A sensitive approach to examining trends and risk factors is required to design targeted interventions for the paediatric population.



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