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SHARED-3 indicates that sofosbuvir–velpatasvir is likely to be more effective than sofosbuvir–ledipasvir in preventing treatment failure in this population where genotype 4 non-a/d subtypes predominate.^{8,9} However, according to the most recent treatment guidelines, sofosbuvir–velpatasvir–voxilaprevir would be the initial drug of choice for the treatment of patients with genotype 4r in this population.¹

SHARED-3 provides preliminary data showing that patients who have had treatment failure with sofosbuvir–ledipasvir or sofosbuvir–daclatasvir, or both, can be successfully re-treated with sofosbuvir–velpatasvir–voxilaprevir. SHARED-3 also brings to the forefront the emerging problem of chronic HCV antiviral treatment failure in sub-Saharan Africa and the urgent need for improved access to regimens that can prevent treatment failure.¹⁰ The use of drug regimens that prevent failure of treatment for HCV infection, active reporting of treatment failure cases, and pooling of these cases could provide a new opportunity to improve the delivery of care for people with HCV infection, access to medications, and research capacity in sub-Saharan Africa.

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COVID-19, childhood obesity, and NAFLD: colliding pandemics



The COVID-19 pandemic drastically affected the lives of children and young people worldwide in 2020 and 2021. Public health measures to reduce community transmission of SARS-CoV-2 included unprecedented school closures and stay-at-home orders. In the UK, national lockdown measures in March, 2020, closed nurseries, primary and secondary schools, and universities for most students through the remainder of the school year. In 2021, primary and secondary schools were again closed in the UK from January to early March. Alongside these school closures were varying levels of restrictions on outdoor recreation, social gatherings, and economic activities. Although the role of social inequalities in exacerbating the negative effects of lockdown on the health and wellbeing of children was evident after the first wave of COVID-19,¹ stark new data highlight the effects of the pandemic and socioeconomic deprivation on childhood obesity rates.^{2,3}

Before COVID-19, obesity was recognised as a global pandemic and one of the largest threats to public health in many countries. The number of children and adolescents (aged 5–19 years) living with obesity worldwide increased more than tenfold between 1975 and 2016, from 11 million to 124 million. No longer exclusive to high-income countries, increasing prevalence of overweight and obesity has been observed in many low-income and middle-income countries since 2000. These data are concerning, because numerous studies have shown that paediatric obesity strongly predicts adult obesity and increased risk of mortality from cardiometabolic disease, including non-alcoholic fatty liver disease (NAFLD).⁴ Reports from multiple countries suggest further increases in childhood obesity, linked closely to socioeconomic status, during the pandemic.^{2,3}

Some of the most alarming data come from England where, since 2006, a comprehensive National Child

Measurement Programme (NCMP) has measured the height and weight of children when they start (reception, aged 4–5 years) and finish (year 6, aged 10–11 years) primary school. Before COVID-19, childhood obesity prevalence in England was already a major concern. Although obesity prevalence in children starting school remained stable from the school year 2006–07 to 2019–20 at approximately 10%, the percentage of final year students living with obesity steadily climbed from 17.5% to 21.0%. In contrast, the NCMP data from 2020–21 suggest sharp increases in obesity prevalence to 14.4% in reception, and 25.5% in final year students. Moreover, the data illustrate a substantial widening in the deprivation gap, suggesting these increases have largely occurred in children attending schools in the most deprived areas. Obesity prevalence was over twice as high for children living in the most deprived areas than for children living in the least deprived areas in both year groups (7.8% vs 20.3% in reception; 14.3% vs 33.8% in year 6). In the USA, similar socioeconomic disparities in obesity prevalence in children (aged 2–17 years) have increased during the pandemic.³

Nearly one in three children (31%) in the UK are currently living in poverty, which is inextricably linked to poor nutrition and obesity.⁵ The relationship between poverty and childhood obesity is multi-faceted, with stress in early life compounded by adverse food environments. Chronic stress exposure (including poverty, food insecurity, parental, and family stress) during childhood alters both biological and behavioural pathways that increase obesity risk.⁶ Risk is further increased by obesogenic food environments in the most deprived communities, which have the highest density of fast-food outlets and the least access to green and physical activity spaces. Healthy food is expensive, and the poorest neighbourhoods are often food deserts with poor public transport and an absence of high quality supermarkets, severely restricting community access to affordable fresh fruit and vegetables.

Although COVID-19 inflicted multiple stressors on many families, job losses disproportionately affected already vulnerable communities. School closures were particularly detrimental for children living in poverty, for whom school provides access to healthy food, physical activity, health and social care, social networks, and familiar routines.⁷ Similarly, although stay-at-home

orders and restrictions on outdoor recreation increased sedentary and screen time for all, children living in densely populated urban areas with no access to green space were particularly affected. Maintaining healthy behaviours requires high personal agency; time; and cognitive, psychological, and material resources that vulnerable families struggled with before the COVID-19 pandemic.⁵ Since parental stress, mental illness, and disruptions to social environments during childhood are associated with weight gain and obesity in children,⁷ it is sadly no surprise that this confluence of COVID-19 related stressors has increased childhood obesity prevalence.

Hepatologists should be very concerned about these data. An estimated 34% of children living with obesity have NAFLD.⁴ Although genetic risk influences NAFLD pathogenesis, disease progression is linked closely to obesity, and diet and lifestyle are crucial determinants.⁸ A population-based study (with data that predated COVID-19) that assessed 4021 24-year-olds by transient elastography with FibroScan suggested that 21% of UK young adults had steatosis.⁹ Concerningly, 10% of participants had evidence of severe steatosis and 2.7% had evidence of liver fibrosis. Although progression to end-stage liver disease generally takes decades, these data suggest that without lifestyle intervention, there will be a substantial burden of liver disease in 50-year-olds in the near future. The EASL-*Lancet* Liver Commission has recently proposed a fundamental shift from the management of end-stage liver disease to health promotion, prevention, and early treatment of liver disease.¹⁰ The Commission's call for population-level interventions (including policy measures aimed at reducing social inequities and improving the food environment) might seem radical to hepatologists, but is a welcome and timely recognition of long-fought for public health recommendations. The driving question for all of us must be: if these trends in childhood obesity are allowed to continue unchecked, what will the morbidity and life expectancy costs be?

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Equity in Digestive Health

Closing the gender gap: building a successful career and leadership in research as a female gastroenterologist



The pillars of academic promotion include clinical service, research, teaching, and public engagement. Although women are more likely than men to pursue a career in academia after a gastroenterology fellowship (40% of women vs 25% of men choose this path), gender disparity in research and academic leadership remains. For example, only one woman was appointed assistant professor in all gastroenterology and hepatology divisions of university hospital centres in France in 2017–18, whereas ten men were appointed full professors and seven were appointed associate professors in that same period.¹ Only 20% of faculty and 25% of full professors in divisions of gastroenterology in the USA are women; this gender disparity has not diminished over the past 35 years and is similar across basic science and clinical departments.² Even though the representation of female physicians as first authors (42%) and senior (23%) authors of original research published in US gastroenterology journals has increased over the past two decades, the proportion of female senior authors increased at a slower rate than female first authors and was lower than expected based on the proportion of women in academia.^{3,4} Similarly, representation of female first authors in high-impact European journals has increased since 1994, but it has plateaued in recent years.⁵ In addition, the proportion of invited women speakers at major national gastroenterological meetings remains low: for example, at the British Society of Gastroenterology meeting in 2014, only 26% of speakers were female;

at United European Gastroenterology week 2019, only 28% of speakers were female; and at Digestive Disease Week 2019, only 33% of speakers were female.^{6–8} How can female gastroenterologists effectively build a successful career in research and overcome these barriers to achieving leadership and academic advancement?

Although female gastroenterologists can meaningfully contribute to research in a range of medical topics, developing a niche can ensure a greater chance of producing impactful and actionable science, and hence help build their reputation as experts. Key to creating and sustaining a niche area is the systematic and logical publication of research that addresses important clinical questions, which have not yet been addressed, using rigorous methods in a patient population with a common condition. Partnering with a mentor is important when developing a research methodology and plan, and when submitting the first few publications to high-impact journals. Leveraging one's clinical practice with the clinical research focus by establishing a subspecialty clinic is strategic to expand clinical expertise and generate clinical questions for future studies. Establishing niche expertise can lead to invitations to speak at meetings and potentially contribute to clinical practice guidelines, increasing female gastroenterologists' visibility and credibility as researchers and key opinion leaders.

To sustain a successful research career, grants are needed to minimise clinical duties and optimise