

## **Changes and adaptations in a national specialist paediatric mental health service in response to COVID-19**

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## Summary:

We discuss how we adapted as a service to continue meeting needs during COVID-19, how further research is warranted on the mental health of the paediatric population as a result of the pandemic, and how services may address these needs.

Although children and adolescents represent only 1-2% of those with coronavirus disease (COVID-19) globally, they and their families have been affected by COVID-19 in multiple other ways. The long-term sequelae of repeated intermittent lockdowns, prolonged social isolation, fear of infection to themselves and others, school closures and increased family pressures are yet unknown, but are likely to be considerable. Some children and adolescents will also develop long-term illness linked to the pathogen itself – so-called “Long COVID” (Lewis, 2021). Unsurprisingly, mental health has also been impacted by the pandemic, with increased rates of mental illness in children and adolescents in the UK (e.g., Raw et al., 2021).

Children and adolescents who have long-term physical health conditions experience additional stressors in the context of the COVID-19 pandemic, such as social and psychological consequences of shielding, restriction on visitors at hospitals, and fear of deterioration of physical health. They are known to have significantly elevated mental health needs (Blackman et al., 2011) and the pandemic is likely to exacerbate their vulnerability to developing mental health difficulties further.

Our recent survey of mental health professionals captured an initial picture of the mental health landscape in the paediatric population, finding diverse experiences of the impact of COVID-19 on working, on children, and on families (Ching et al., 2021). Our own clinical experience has also been heterogeneous. For example, some families with autistic children have found lockdown challenging, perhaps due to the changes and loss to routine and familiar activities. But others have

found that the increased predictability of study at home and diminished social demands from peers have made life feel easier.

The pandemic has also directly impacted the way in which healthcare itself is provided. Fluctuations in number of referrals to child and adolescent mental health services (CAMHS) have been observed, with a decrease at the start of the pandemic, followed by a subsequent rise (McNicholas et al., 2021; Tromans et al., 2020). Services have had to adapt to these numbers whilst simultaneously adhering to National Health Service guidelines and law. New rules introduced to protect patients, families, and staff from infection presented challenges for maintaining standards of care and avoiding impact on waiting list times.

The Psychological Medicine team (a national specialist child mental health service in a paediatric hospital in London) receives referrals of children with complex physical and mental health needs from across the UK, including functional symptoms, tic disorders, and autism spectrum disorder (McWilliams et al., 2018). To adapt rapidly and flexibly, like many services nationwide, the team shifted provision from predominantly individual assessment and treatments delivered almost exclusively face-to-face, to remote consultations and group formats. For managing functional symptoms, the service moved from providing individual treatment to children and families to a consultation model, supporting local services with interventions to enable children to continue receiving specialist support. Local services were invited to join remote assessment and treatment sessions via virtual clinics which was not possible in the past due to time constraints that limited clinicians from different teams to travel and meet for joint work. This allowed better joined up work, communication, and mutual learning between our national specialist service and local CAMHS. Efficient service provision for families was also ensured as local teams could immediately implement our recommendations and offer insight on what solutions were available locally.

The consultation model initially involved group psychoeducation with the families and local clinicians, which described what functional symptoms are, factors that may be maintaining the

symptoms, and introduced strategies for the young person, family and system around them to manage symptoms. Following psychoeducation, we offered joint working with local clinicians, which involved a member of our team providing supervision and guidance on working with functional symptoms and attending individual, family, or professional meetings. As a result, our referral criteria were amended to ensure that local CAMHS teams were working with the family prior to assessment with our service. This enabled us to support more families and local services with training and experience in managing functional symptoms as appropriate. Prior to the implementation of the consultation model during COVID-19, we would often lack capacity to assess cases where the patient had multiple mental health comorbidities but only one of which was eligible for our service. In contrast, the new model allowed us to accept these cases for 'consultation' with local teams to jointly assess and treat, increasing our ability to see more families and meeting increased need.

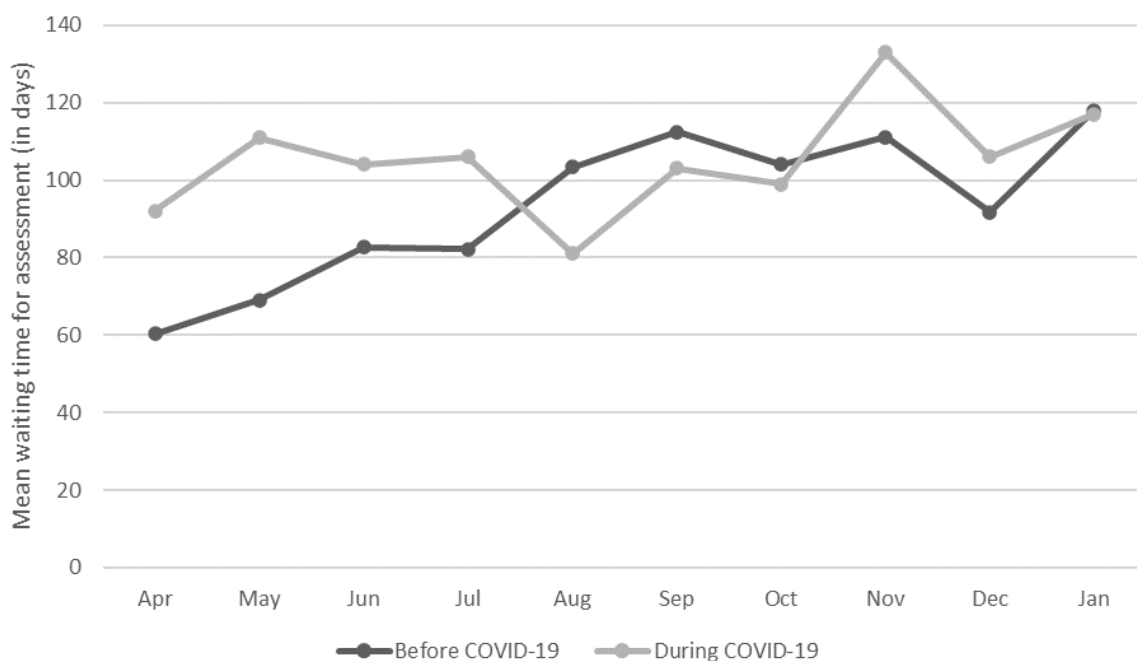
In parallel with the work described, we carried out a brief professionals audit in our department regarding clinicians responses to remote working (unpublished data). There was general agreement that future models of service delivery are likely to include hybrids of face-to-face and remote working. Clinicians reported both benefits and disadvantages of remote working (Figure 1). More widely noted in literature, audits of the impact on clinicians of remote working during the COVID-19 pandemic have shown reduced staff wellbeing and recommend additional support, training, and guidance (Bentham et al., 2021).

Surveys completed by 34 clinicians in the Psychological Medicine team revealed that some clinicians:

- Had difficulties engaging adolescents when working remotely;
- Had concerns with regards to confidentiality;
- Had concerns that remote working may exclude certain populations of children such as those with no or little access to technology and non-verbal children;
- Reported negative impact on team working (both formal and informal discussion with colleagues);
- Highlighted that sometimes it was hard to “switch off”, contributing to greater physical and emotional fatigue;
- Described fewer distractions when working from home;
- Reported there was no travel time or cost.

**Figure 1.** Findings from our unpublished brief audit of clinicians’ responses to remote working.

Further adaptations to assist remote working included use of technological support, such as the Pearson Q-Global to conduct remote cognitive assessments, and use of the hospital’s efficient electronic patient interface to conduct secure video consultations. Professional guidelines on remote psychological and cognitive assessments were strictly followed to maintain validity and security of remote assessments (British Psychological Society, 2020; Royal College of Psychiatrists, 2020).



**Figure 2.** Mean waiting times for assessment (in days) in the Psychological Medicine team before (1<sup>st</sup> April 2019 to 31<sup>st</sup> January 2020) and during the COVID-19 pandemic (1<sup>st</sup> April 2020 to 31<sup>st</sup> January 2021).

We undertook an analysis of the patterns of service use before and during the pandemic by retrospectively collating hospital service data. Between 1<sup>st</sup> April 2019 to 31<sup>st</sup> January 2020 (before COVID-19 arrived in the UK) and 1<sup>st</sup> April 2020 to 31<sup>st</sup> January 2021 (during the pandemic) the mean waiting time between referral received and assessment taking place increased (mean pre-pandemic: 94 days, during pandemic: 109 days;  $U=7359.5$ ,  $z=-3.268$ ,  $p<.001$ ), although relatively small and unlikely to have clinical significance. We compared waiting times by calendar month, plotting data for the two years (Figure 2), showing the largest difference at the start of the first lockdown from April 2020. This might be expected as this was the time that the service was required to make fast adaptations in response to regulations.

Once these adaptations were in place, our specialist paediatric mental health service managed to function largely as usual, meeting the needs of children and families as before the pandemic, albeit with a two-week mean increase in waiting time. We had early access to well-functioning remote working platforms. Adequate technological infrastructure to maintain service provisions and make such adaptations is a key requirement. We had already developed some group therapy protocols which we were able to scale-up and deliver remotely and had also piloted consultation models. Whether our models will work in the future is unknown, especially in light of discussion that children and adolescents' experiences of second and subsequent lockdowns were different. The impact on mental health is only beginning to be understood, but our service witnessed an explosion of functional tic presentations (Heyman et al., 2021).

We must be mindful that new digital models of care may struggle to be universally beneficial or to suffice in every circumstance. Families and children must have private spaces for sessions and access to internet and digital devices, potentially perpetuating social and digital exclusion in mental

health care (Watts, 2020). This digital divide needs to be factored in when considering service adaptations during the pandemic and beyond to ensure access to psychological support in paediatric and child mental health services are equitable regardless of socioeconomic factors.

Mental health in paediatric patients attending a children's hospital may have been compromised by the COVID-19 pandemic but flexibility in service provision has allowed needs to be met, in terms of the number of families referred to our service that continued to receive remote assessment and intervention. Based on our personal clinical judgement and experiences of working during the pandemic and preliminary research (e.g., Ching et al., 2021), some of these service delivery adaptations appear beneficial to families and staff and may be continued post-pandemic. However, these adaptations need further evaluation both in terms of satisfaction and effectiveness. Although the majority of patients and families we saw had access to technology that allowed them to receive support, we acknowledge that there are issues with relying entirely on remote adaptations and services need more innovation in extending provisions to families with reduced access to technology. Going forward, it is important that face-to-face provision is available for families unable to access technology and that the decision to see a family remotely or face-to-face is made in collaboration with children and adolescents and families, combined with clinicians' judgement. Further research is needed on how the mental health needs in the paediatric population has been affected by COVID-19 and how services can address this. This is particularly pertinent as new waves of COVID-19 infections and variants arrive and more is understood about the rate and impact of Long COVID in children (Molteni et al., 2021).

**Word count including references: 2,006**

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