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Editorial

Physical and Mental Well-being of Children and the Way Forward

Emerging evidence from well-conducted longitudinal studies have highlighted the importance of early childhood investments, as children are more vulnerable to the early environment that can affect their long-term health and productivity in adult life.¹ The Coronavirus Disease 2019 (COVID-19) has rampaged across Asia and around the world over the past year and a half. In early 2020, almost a third of the world's population was under lockdown to try to bring the pandemic under control. This has had profound impacts on the nurturing environment, affecting almost all children and their families. In addition, the various strategies implemented to reduce the spread of COVID-19 including social distancing and school closures can have adverse effects on different aspects of child development including learning, cognitive skills, physical health, mental health, psychosocial well-being, and peer relationships. It is therefore crucial to study and monitor the impact of disease pandemics on the physical and mental health of children as well as on family functioning to alert professionals and stakeholders about their needs and to guide policymakers on planning effective interventions.

Since the first paediatric COVID-19 case admitted in February 2020, there have been more than 960 infected children managed by our dedicated colleagues in different hospitals in Hong Kong. The paediatric hospitals and other collaborative departments have been reporting the clinical characteristics of Hong Kong children infected with COVID-19 since the first three waves, which showed that most cases were linked to transmission through family members in households from diverse backgrounds.² There are emerging reports of physical and mental health issues in families and communities associated with the COVID-19 pandemic. A study commissioned by the Hong Kong government found infants and young children have significantly lower levels of serum vitamin D compared with levels before the pandemic, possibly due to the lack of outdoor activities and exposure to sunlight as a result of the stringent COVID-19 control measures.³ On the other hand, another population study published in European Child and Adolescent Psychiatry reported an increase in the risk of hyperactivity, inattentive symptoms, and other behavioural problems in children during COVID-19 pandemic,⁴ which was particularly significant among children with special educational needs and other disabilities. These children are highly vulnerable and are greatly affected by interruptions in rehabilitation training and medical care. Hence, it is important to examine the impact of the COVID-19 outbreak on this group of children. In particular, we need to examine the prepandemic baseline prevalence of vitamin D deficiency/insufficiency and hyperactivity/inattention to assess the current situation in children with disabilities.

The July issue includes relevant studies on the prevalence of vitamin D deficiency/insufficiency and Attention-deficit/Hyperactivity Disorder (ADHD) among children with chronic illness and on the effectiveness of interventions targeted at children with spasticity. In the original study conducted by Mo et al on children with epilepsy receiving antiepileptic

treatments, they found vitamin D deficiency/insufficiency was prevalent among this group of vulnerable children.⁵ Interestingly, another recent study reported similar findings of increased risk of vitamin D insufficiency among infants and young children with low blood levels of Vitamin D associated with inadequate sunlight exposure and nutritional consumption.⁶ This is likely to be an even more alarming problem that should be monitored by professionals as we continue to treat our paediatric patients during the later phase of the COVID-19 pandemic.

Handicapped children including those with significant physical disabilities such as spastic cerebral palsy or those with neurodevelopmental disorders such as ADHD and autistic spectrum disorder (ASD) are most vulnerable to the harmful effects of COVID-19. Children with chronic illness and disabilities are at increased risk of mental health and adjustment problems during COVID-19 outbreaks, particularly when schools and other buffering platforms are not functioning. During the peak of the second wave in 2020, paediatricians and fellow surgeons in the Hong Kong Paediatric Society organised visits to special needs schools for physically and mentally handicapped children and brought along face masks, alcohol hand rubs, and thermometers that most were in short supply. Although residents with severe spastic cerebral palsy and multiple disabilities were being cared for in the special needs schools, the training of students with ASD, hyperactivity, and intellectual disability was heavily interrupted. Many handicapped children have found it difficult to receive basic training, and many have experienced developmental regression and physical deterioration with increased spasticity and contractures.

In Hong Kong, there are currently 56,640 students with special educational needs in public schools, of which 23,230 have specific learning difficulties, 14,580 have ADHD, and 11,870 have ASD (Education Bureau, June 2021). Children and adolescents, particularly those with learning difficulties and ADHD, have faced big challenges with online learning during school closures related to the COVID-19 pandemic. A retrospective study conducted by Han et al in South Korea reported that children with chronic illness have a much higher prevalence of ADHD than the general population.⁷ Paediatric patients with epilepsy and concomitant ADHD found it more difficult to control their seizures and responded less favourably to antiepileptic medications. Another study led by Leung et al in a major

paediatric rehabilitative unit in Hong Kong compared different treatment modalities for children with cerebral palsy.⁸ Both phenol and alcohol nerve block were found to be effective in reducing focal spasticity among paediatric patients, which can potentially improve their long-term function and quality of life.

This summer, we are going to start the first territory-wide COVID-19 vaccination program for students and teenagers in Hong Kong. As paediatricians and professionals looking after children's health and holistic development, we have witnessed firsthand the many difficulties experienced by our patients and their families. As we continue on this challenging journey, it is heartening to know that it will not be long until we see all the cheerful faces of our children in the community. May God bless Hong Kong and all our beloved children.

P Ip
Associate Editor

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