

friend, were moved to a hospital due to COVID-19. Parents reported that she had excessive fear thereafter of COVID-19. Her daily routine including appetite, sleep, play and class work was also affected.

While conversing with the child she had moist eyes with mainly short answers to any questions asked. On probing further, she reported about the incident and her fear of separation from the parents if either of them got infected. She had nightmares of being infected with COVID-19. On asking her what she knows about COVID-19, she replied "*it is a deadly virus which spreads from one person to another – once infected the person dies within a short time.*" Her vitals were stable and systemic examination revealed no significant findings. Looking at the clinical scenario, the child was diagnosed to have acute stress disorder with panic symptoms [3].

Cognitive behavioural therapy (CBT) (3-4 sessions in a week) was initiated with a clinical psychologist, focused on restructuring her thoughts and cognition. Due to significant impairment of daily activities and sleep, clonazepam was started at the dosage of 0.5 mg/day in 2 divided doses. Relaxation techniques were advised at home. Parents were asked to decrease screen usage focussing on COVID-19 and to divert her in activities she relished.

Panic disorder, generalized anxiety disorder (GAD), specific phobia, and post-traumatic stress disorder were also considered in differential diagnosis. However, presence of triggering factor and duration of illness helped to rule out the differentials [3]. After one week, overall improvement was observed in the child, and parents reported her improved well-being. Medications were stopped and she was asked to follow up for CBT. The child is on follow-up and symptom free since 4 weeks.

Children are having an increased exposure to media and inadequate knowledge about pandemic. Some individuals can

cope up with it. However, fear of the unknown raises anxiety levels in many children, especially the one with preexisting mental health conditions or neurodevelopmental disorders [2]. They may experience a broad range of concerns, including various internalizing and/or externalizing behavioral issues, increased substance abuse, social isolation, mental health disorders and lowered perceived good health [4].

Proactive and empathetic approach not only to the exposed but also with the unexposed is required. Early pick up with comprehensive history and observation is crucial for diagnosis. Appropriate intervention and meticulous follow up can benefit such children to build resilience during these difficult times.

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## COVID-19 Vaccine in Children: Where Do We Stand?

We welcome the recommendations of the Indian Academy of Pediatrics Advisory Committee on Vaccines and Immunization Practices (IAP-ACVIP) during the COVID-19 pandemic [1]. These recommendations are likely to assuage the doubts of pediatricians as well as parents. The Government of India is planning to layout the distribution of COVID-19 vaccine soon. In such times, the guidance from IAP-ACVIP regarding immunization of children with the COVID-19 vaccine is much desirable.

Recently a few vaccines have completed phase 3 trials and are likely to be available for the general population very shortly (Phase 4) [2]. Though the efficacy of these vaccines is impressive in trials among adults, there is apprehension for their

safety and efficacy in children. Recently a group of experts stated that the wait shall be prolonged for the pediatric age group due to the lack of clinical trials of COVID-19 vaccine in children and their vulnerable status [3]. However, explicit guidance from the Government of India on this aspect is not yet available. It is high time that the panel considers it as an urgent public health issue and advocates the right decision for children that is based upon robust scientific evidence and strong ethical aspects.

In a scientific view, the decision for vaccination should depend upon the overall disease prevalence and associated mortality and morbidity. For COVID-19, all these three aspects are relatively less severe in children, though due to the unknown status of the long-term implications, the situation remains grave. Another scientific aspect is the efficacy and safety of the vaccine in a given population. Unfortunately, similar to other therapeutic trials for COVID-19, the children are ostracized from vaccine trials too. Hence, this data is lacking at present and

is unlikely to be available in the next few months.

The ethical view advocates that the decision must be coherent with the principles of medical ethics (non-maleficence and beneficence, equity, justice, fairness, and transparency) [4]. All of the principles except non-maleficence and beneficence advocate for the equal share of children among COVID-19 vaccine recipients. In ethics, non-maleficence and beneficence supersede others therefore; vaccinating children cannot be advised unless it has been proven safe.

Since we have a large amount of short-term data on the implications of COVID in children, there is a need to analyze it properly to make an informed decision. Once, phase 4 vaccination trials begin, and we have sufficient data about its safety and efficacy in the general population, children should be enrolled in the ongoing vaccine trials. The results of the phase 3 trial done in children will serve as the best guide for further decision making.

The role of IAP has always been instrumental in all national policies about children. Now it's time to continue that advocacy by giving its representation to the national steering committee for the COVID vaccine so that the children are not ostracized again.

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## AUTHORS' REPLY

We appreciate the positive comments of the author regarding the recommendations of the Indian Academy of Pediatrics Advisory Committee on Vaccines and Immunization Practices (IAP ACVIP) on the subject of vaccination during the COVID-19 pandemic [1]. We would like to allay the apprehension of the author about immunization of children with the COVID-19 vaccine.

In certain situations, as in the present COVID-19 times, with limited availability of vaccines, the priority at this stage is to protect those at highest risk. There is unanimity in the view,

that the priority groups for vaccination are the frontline healthcare workers, to ensure the optimal functioning of the health care system, followed by those over 65 years of age and those with co-morbid medical conditions [2,3].

As of now, studies have shown that COVID-19 is relatively uncommon in children and when infected, typically have milder symptoms and the rate of complications are lower [4,5]. The role of children in transmission of the disease is uncertain and contact tracing studies have shown that children are rarely the index case in family outbreaks [6]. Nevertheless, outbreaks of COVID-19 have been reported in schools and school camps [7]. The temporal association of a novel Kawasaki disease-like multisystem inflammatory syndrome in children with past COVID-19 infection, underlines the need for continued surveillance in pediatric patients [8].

ACVIP is a sub-committee of the IAP, which has the mandate to evaluate evidence on available vaccines and make recommendations primarily for members of IAP. In the case of COVID-19 vaccines, we do not have a vaccine licensed for use in India nor are we expecting a COVID-19 vaccine for children in the very near future. None of the COVID-19 vaccines in phase 3 trials have included young children. The BNT162b2 mRNA COVID-19 vaccine trial has included adolescents 16 years and older and studies in the 12-15 year olds and subsequently the younger age groups are planned [9].

The ACVIP is following the developments very closely and will make recommendations, at the appropriate time, when more robust data is available about the efficacy, safety and availability of Covid-19 vaccines in children.

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