

Health & Physiology

Child masking prevents childcare closure during the COVID-19 pandemic

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This Break was edited by Sara Pannilunghi, *Senior Scientific Editor* - TheScienceBreaker

ABSTRACT

Masking, a common SARS-CoV-2 risk mitigation strategy, is controversial for children in educational settings such as childcare. A prospective survey of early childcare workers demonstrated that child masking was associated with a significant reduction in COVID-19 program closure, highlighting potential benefits of child masking in keeping childcare open, parents employed, and children learning.



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Over the last two years, multiple risk mitigation strategies have been deployed to reduce the rate of spread of SARS-CoV-2 (the virus that causes COVID-19) in congregate settings, including schools and early childcare programs. Layered strategies include: screening for COVID-19 related symptoms and/or SARS-CoV-2 testing prior to gathering, keeping individuals in small groups that do not intermingle (cohorting), vaccination of eligible populations, attention to air quality and ventilation, physical distancing, and masking of adults and children older than two, especially indoors.

Prior to the COVID-19 pandemic, masking was a largely used method to prevent the spread of respiratory illnesses, especially employed in the hospital by individuals caring for patients with influenza. Therefore, it is not surprising that this practice was one of the first behaviors endorsed to reduce the spread of SARS-CoV-2.

Despite its potential benefit, the masking of younger children has raised several concerns. Arguments against masking include that by not seeing the face, children will be delayed in speech and

development and fail to read emotional cues. Furthermore, children with underlying lung problems may have difficulty breathing. This has led to emotional pleas from different quarters to unmask children in educational settings, including early childcare. Fortunately, to date, there is no evidence that masking children causes increased respiratory problems or results in long-term effects on development or learning.

As of spring 2022, many government agencies have relaxed mask mandates for schools and early childcare programs who faced unique challenges in protecting children from COVID-19. First and foremost, when children under five years become vaccine eligible, there is a concern that uptake in this population will be quite low. Next, younger children may not effectively maintain distancing and/or proper masking in congregate settings for extended periods of time. Programs may also be housed in poorly ventilated spaces that lack air movement. Finally, many early childcare workers have quit their job, leaving programs short-staffed and making it more difficult to create multiple cohorts of children that remain separated throughout the day.

Given these challenges, we were interested in understanding what childcare programs were doing to protect children from COVID-19 and which of these risk mitigation strategies were most effective.

To answer this question, we surveyed more than six thousand early childcare workers from across the United States about the risk mitigation strategies deployed in their programs in both May/June 2020 and again in May/June 2021. The respondents worked for both center and home-based childcare programs. Almost half of respondents reported that their childcare program had closed at least temporarily because of COVID-19. Our data first showed that most programs were going to great lengths to reduce the risk of COVID-19. For example, we found that over 60% were screening children for symptoms and taking their temperature, over 40% were doing outside pickup and drop-off and endorsed six-foot distancing. Interestingly while only less than 10% of respondents reported requiring child masking in their programs in

May/June 2020, this number jumped to almost three-times more in May/June 2021.

We found that, after controlling for different risk mitigation variables, masking children at both baseline and one year later was associated with a significant 14% reduction in childcare program closure.

We chose childcare closure as our outcome measure because when a program closes it is extremely disruptive to all involved. Employees are unable to work, often without pay, and parents/guardians struggle to find alternative safe, affordable childcare.

However, there are some limitations. First, we performed the study before the emergence of more transmissible variants like Omicron, and second we did not directly observe if children were wearing their masks properly when it was required. This real-world calculation may underestimate the potential benefits of masking.

Finally, we were not able to distinguish between COVID-19 closures related to transmission within the childcare program, as opposed to COVID-19 cases brought into the program from the outside, although we did control for community transmission rates.

Despite these limitations, the study clearly demonstrates for the first time that when children wear masks in early childcare, it reduces the probability that program will close from COVID-19. This has implications for reducing disruptions for working parents and children learning.