

Children's Questions, Worries, and Information Needs A Year Into the COVID-19 Pandemic

A study based on listeners of the children's science podcast

brains on!



Vaccine drawing submitted by a Brains On! child listener

EXECUTIVE SUMMARY

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March 2021



STUDY OVERVIEW

A year into the COVID-19 pandemic, the world continues to struggle with the many ways our lives have changed and the uncertainty that remains about the future. Vaccines are being widely administered, but how and when life will return to “normal” remains unknown. During this time, caregivers continue to seek out information to address the questions, worries, and information needs their children have about this unique moment in their lives. Our NSF-funded RAPID research project¹ has helped to uncover some of these questions, worries, and needs by talking to caregivers of listeners of the children’s science podcast [Brains On!](#). The first phase of our research gathered data from families in June 2020 (find [our reports here](#)). The second, and final phase, of our research gathered data in January 2021 and revealed important insights into the kinds of questions children are asking a year into the pandemic, the worries they have, and the types of support caregivers need in order to discuss the COVID-19 pandemic with their children. We hope our research findings can inform the development of coronavirus-related educational resources responsive to the information and learning needs of families during the COVID-19 pandemic, as well as help create educational resources that are adaptable to future global crises.

This report provides results of an online survey administered between January 11 – 25, 2021 to caregivers of children ages 5 to 12 years old who listen to the children’s podcast Brains On!. A total of 537 caregivers responded to the survey. It is important to note that the survey sample tends to reflect the experiences of white-identifying, high-income, and highly educated families, which means that experiences and voices from populations that have been most affected by the pandemic in terms of economic and racial disparities are not adequately represented in our study. This is a major limitation of our research, and we hope that others will build on these findings and work to fill the gaps in our sample and knowledge. Detailed descriptions of our survey methodology and corresponding sample information can be found in the full report.

MAIN FINDINGS

Children’s Questions Related to the COVID-19 Pandemic

Children were wondering about a range of topics related to the COVID-19 pandemic in January 2021. Most frequently, children’s questions were around the uncertainty of how long their life will be different because of the pandemic or they wondered about the COVID-19 vaccines. See Figure 1 on page 7 of the full report for the full list of question topics.

Children’s questions in January 2021 were most frequently related to how long before life goes back to “normal” and the COVID-19 vaccine.

¹ This material is based upon collaborative work supported by the National Science Foundation under Grant No. 2029209 titled RAPID: Addressing Families’ COVID-19 Information and Education Needs Through Podcast Media. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Children's questions about the uncertainty around the length of the pandemic were most often related to how long until life will return to "normal" and they will be able to do "normal" activities such as see family and friends, go back to school, travel, participate in sports, and more. Similarly, children wondered about when vaccines would be available (especially for children) and when they would no longer have to take preventative measures, which related to a sense of their life going back to "normal."

Children had a wide range of questions about the COVID-19 vaccines. Most frequent were the unknowns around how the vaccines relate to getting life closer to "normal." Children wanted to know what the vaccine means in terms of what people will be able to do and when they might be able to do certain things (stop wearing masks, see friends and family, travel), how many people will need to get vaccinated before life can get back to "normal" (even though children didn't say "herd immunity" their questions related to that idea), and how vaccinations will help to stop the pandemic. There were a number of questions related to a vaccine for children. These included questions about why kids can't get the vaccine yet, why it is taking longer to develop a vaccine for children, and when the vaccine will be available. Questions about the currently available vaccines included how the vaccines work, how the vaccine was developed and tested to make sure it is effective, and how scientists were able to develop the vaccines so quickly. Some children wondered about the safety of the vaccines, the potential side effects, and if the vaccines will be effective against the mutations of the virus. There were a number of questions around why the vaccines aren't being distributed faster and why it will take so long for everyone to get vaccinated.

Children's Worries About the Coronavirus

Almost all children (97%) in our study had worries related to COVID-19 between December 2020 and mid to late January 2021. The most frequent worry was about people not following the safety guidelines, with close to three-quarters (73%) of children expressing this worry. The uncertainty of how long before life goes back to "normal" was a common worry from a little over two-thirds of children (68%), with a third (33%) worried that life may never go back to "normal." More children were worried about someone important to them getting sick from COVID-19 (64%), than getting sick themselves (41%). Safety guidelines were also a worry for about half the children (53%) in terms of what they need to do themselves to stay safe. Children also had worries related to specific aspects of their life such as school (44%) and not being able to do activities other than school (62%). With some of these changes in their lives, children may not see their friends as often or at all. As a result, half of the children are worried about changes in relationships with friends.

Children were most frequently worried about people not following the safety guidelines and how long it will be before life goes back to "normal."

When looking at worries by demographic characteristics, for many of the worries there was not a significant relationship between presence of a worry and a child's age, gender identity, or racial/ethnic identity. Of particular note is that even with documented racial/ethnic disparities around

infection by and death from COVID-19², there was not a statistically significant relationship between racial/ethnic identity and children’s worries about themselves or someone they love getting COVID-19 or dying from COVID-19.

Differences in Worries by Demographic Characteristics

- **BIPOC children were more likely to have worries related to school than white children.**
- **Female-identifying children were more likely to be worried about changes in relationships with friends than male-identifying children.**
- **Female-identifying children were more likely to be worried about life never going back to “normal” than male-identifying children.**
- **Of children between the ages 5 to 12, older children were more likely to be worried about death related to COVID-19 than younger children.**

While only a quarter of children (23%) had vaccine-specific worries, because communication about vaccines will continue to be important over the coming months, we asked for more details about these vaccine-related worries. The pain and fear associated with the shot was the most frequently mentioned worry. Other key worries were the uncertainty around the timing or scheduling of vaccines, as well as the distribution of and access to vaccines. While the pain and fear children associated with vaccination shots are universal across vaccines, some of the worries children had were unique to the COVID-19 vaccine, such as the speed at which it was developed, whether it was safe, and its effectiveness, especially against new variants of the coronavirus. See Figure 6 on page 14 of the full report for a full list of the children’s vaccine-related worries.

Supporting Caregivers’ COVID-19 Pandemic-Related Information Needs

Caregivers reported turning to resources meant for children, as well as resources meant for the general public or adult audiences, to answer their child’s questions and help them understand science topics related to the COVID-19 pandemic. Brains On! coronavirus episodes were an important child-focused information source for families during the pandemic, although the episodes released in the early months of the pandemic were more popular than episodes released later on. When looking at adult-focused or general public resources we saw some differences in how caregivers used these resources depending on their child’s age. While most caregivers (80%) reported using information from adult-focused or general public resources to help them personally understand a pandemic-related topic and then explain it to their child in a more kid-friendly way, caregivers were more likely to do this with younger children than older children. With older children, caregivers were more likely to have their child use an adult-focused or general public resource on their own (42% of 11- to 12-year-olds compared to 16% of 5- to 6-year-olds).

² Centers for Disease Control and Prevention. (2020). COVID-19 racial and ethnic health disparities. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/index.html>

Caregivers most frequently mentioned needing additional kid-focused resources to help with children’s mental health struggles and emotional wellbeing during the pandemic, as well as resources that cover a variety of vaccine-related topics.

While over two-thirds (68%) of caregivers felt they found enough child-friendly resources to help their child understand pandemic-related topics, some identified a need for more child-focused resources. A year into the pandemic, caregivers most frequently wanted support for helping their child deal with mental health struggles and their range of emotions. Caregivers also frequently wanted support in discussing topics related to the vaccine, such as how the vaccines were developed, how they work, and why children can’t get the vaccine yet.

CROSS-CUTTING THEMES

A number of cross-cutting themes emerged from looking across the survey findings. These are additional areas of importance to consider for individuals and organizations who are looking to develop resources to support children and their families in the coming months of the pandemic.

Uncertainty Around the Unknown Length of the Pandemic Troubles Children

Children had many questions and worries related to the uncertainty of how long the pandemic will last and most importantly how long before key aspects of their life will return to “normal.” Although most children seem to understand that things would return to normal eventually, they had worries and questions about the many things that could delay a return to normal such as vaccine distribution and the emergence of variant forms of the coronavirus. Children also voiced concerns about how key activities, such as school, and relationships with friends and family may be changed permanently after the pandemic. Some children even expressed a worry that life may never go back to “normal,” with female-identifying children more likely to be worried about this than male-identifying children. Even though the vaccine had become available, which many see as key to returning to a normal routine, there was still much uncertainty about its distribution, when vaccination numbers will decrease the need for preventative measures, and, most importantly for children, when a vaccine would be available for them. It is important that educational efforts around the pandemic include acknowledgement of the stress and emotional toll these various areas of uncertainty can have on children.

The Social Impacts Are Just as Important to Address as the Science

Children’s questions and worries were not only about the specific scientific aspects of the pandemic but how the pandemic has affected the social aspects of their life. These two are interconnected since the many impacts on children’s lives occurred because of the coronavirus. The variety of preventative measures that children and their families are following to prevent getting sick and keeping others safe are disrupting children’s normal everyday life in immense ways. Many children lack the everyday routines of going to school and seeing their friends and teachers in person; they miss playing with friends and interacting with extended family members; and they want to know when they can participate in some of their favorite activities again like participating in sports, going on family vacations, and celebrating birthdays with others. It is important that educational efforts focused on

children don't just highlight the scientific information and public health guidance, but acknowledge the social impact this is having on children and the attached emotions of frustration and loneliness this can bring, especially given the uncertainty of when children will be able engage in social activities in "normal" ways again.

Attending to Children's Emotional Wellbeing and Mental Health

The pandemic has taken a toll on children's mental health and emotional wellbeing. Almost all children in the study were experiencing worry or fear. Many responses also mentioned feelings of frustration, loneliness, disappointment, and/or sadness, oftentimes because of the drastic changes in children's lives related to not being able to do many of their "normal" activities or see people important to them. Caregivers would like resources to help them talk to their child not just about the science of the pandemic but how to attend to the emotional and psychological impact the pandemic is having on their child.

Need for Greater Understanding About Vaccines

Vaccines were a topic that came up repeatedly across the survey data. This isn't surprising given that some COVID-19 vaccines were just beginning to be distributed at the end of 2020 and there were still many unknowns related to vaccines. These unknowns came up in children's questions and worries – when the vaccine will be available for kids and people important to them, how the vaccine will work with the new variants, how long preventative behaviors will need to remain in place as people get vaccinated, how long before enough people are vaccinated so that life can go back to "normal," and how the vaccines will help to stop the pandemic. Children want to know more about the process of developing and testing the vaccine, how the vaccines work, their effectiveness, side effects, and why there isn't a vaccine for children yet. Some of the information about vaccines is difficult for children to understand and caregivers to translate, so more kid-friendly resources need to be developed to help address any worries or fears children and their families may have in relation to getting vaccinated. The stakes couldn't be higher for better communication about vaccines for children and their families.

Helping Children Make Sense of Inconsistencies In People's Preventative Behaviors

Children have questions and worries around topics that are particularly difficult for caregivers to talk about and explain, such as why people seem to lack a sense of empathy or don't believe the science related to the pandemic. The most frequently mentioned worry is why people aren't following preventative guidelines, which was echoed in the children's questions in addition to questions about why some people don't think the pandemic is real or don't want a vaccine. These are all behaviors and opinions they see people expressing that are counter to what they are hearing when they listen to the Brains On! podcast and what scientists are communicating to the public. Related to this, some children were also voicing concern about why people don't seem to care for others and their community, recognizing that the preventative behaviors don't just protect the person doing them but protect those around them. Some children also expressed frustration and confusion over behaviors that were counter to the guidelines and seemed unfair, for instance why some friends were able to play with others but they couldn't because of their family's approach to prevention. These instances can be especially difficult for children to understand and for caregivers to navigate as they try to balance the safety of their family with the impact the pandemic is having on their child's social interactions and overall emotional wellbeing.

Continued Need for Education Around Preventative Measures

Preventative measures continue to be a frequent topic of children's questions a year into the pandemic. Children's questions about how long preventative measures would have to remain in place figured prominently, as well as questions about why particular measures were needed and how they worked to stop the spread of the coronavirus. Children are also worrying about both how they are using preventative measures to stay safe, and, more acutely, they are worrying about people who are not following the safety guidelines to prevent transmission of the coronavirus. Some caregivers are still looking for child-focused resources to support these various conversations with their child about preventative measures.