The Impact of the Pandemic on Development: Parents' Perceptions on Language and Literacy

Les conséquences de la pandémie sur le développement des enfants : perceptions parentales sur le langage et la litéracie

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Abstract

This exploratory research examined how Canadian parents perceived the impact of the COVID-19 pandemic on several aspects of their children's development, and whether these perceptions differed between parents of children with and without developmental difficulties. Pandemic-related restrictions limited social interactions, likely leading parents to have concerns about the impact of the pandemic on children's development of social skills. However, it was not clear if parents were concerned about the potential impact of the pandemic on other areas of child development, such as language and early literacy. To examine parents' perceptions of the impact of the COVID-19 pandemic on child development, we conducted an online survey with 253 parents of preschool-aged children. Survey items covered two domains: possible impacts of pandemic-related measures and concerns about specific developmental skills. Parents reported that the most negative impact on their children's development during the pandemic was limitations on playing with other children. They were particularly concerned about the impact on social skills, more so than on language and early literacy skills. The results also showed that parents who suspected that their children had a developmental difficulty were more concerned about the pandemic's impact on their children's development than parents of children with a diagnosis or no difficulties. We discuss the implications of these findings considering current research on the effects of the COVID-19 pandemic on children's language, early literacy, and social skill development.

Abrégé

Cette recherche exploratoire porte sur la perception des parents quant aux conséquences de la pandémie de COVID-19 sur le développement de leurs enfants et vise à démontrer si ces perceptions diffèrent entre les parents d'enfants présentant ou non des difficultés de développement. Le manque d'interactions sociales découlant des restrictions liées à la pandémie pourrait être une préoccupation majeure puisqu'il pourrait être responsable de certaines répercussions sur le développement des compétences sociales. La préoccupation des parents concernant les conséquences potentielles de la pandémie sur d'autres domaines du développement, tels que le langage et la littéracie, n'est cependant pas établie. Nous avons mené une enquête en ligne à laquelle ont répondu 253 parents d'enfants d'âge préscolaire. Les questions portaient sur deux domaines : les effets de diverses mesures liées à la pandémie et les préoccupations concernant les compétences développementales. Les parents ont indiqué que l'effet le plus négatif sur le développement de leurs enfants durant la pandémie est la limitation liée aux jeux avec d'autres enfants. Les parents étaient particulièrement préoccupés par les conséquences sur les habiletés sociales. Les résultats montrent également que les parents soupçonnant une difficulté de développement chez leurs enfants étaient plus préoccupés par les effets de la pandémie que les parents d'enfants ayant déjà reçu un diagnostic ou n'ayant pas de difficultés développementales. Nous discutons des résultats obtenus à la lumière des recherches actuelles sur les effets de la pandémie de COVID-19 sur le développement du langage et de la littéracie et sur les compétences sociales des enfants.

During the COVID-19 outbreak, there were many community-based public health measures (hereafter referred to as "pandemic-related measures"), including mandated mask-wearing and social distancing. These measures have been important for disease prevention, but possible unintended consequences on child development might have caused concern among parents. Canadian mothers of children aged 0 to 5 years cited the lack of social interactions as one of their top concerns about pandemic-related measures (Sanders et al., 2022). This finding suggested that parents were preoccupied about the impact of the pandemic on the development of their children's social skills. However, it was not clear if parents were concerned about the pandemic's potential impacts on other developmental areas, such as language and early literacy. Parents' perceptions of these areas are important in part because parents' concerns about language development are essential to connecting children with the supports they need, such as diagnoses by professionals (Doove et al., 2021). This gap in understanding motivated us to examine parents' perceptions of the impact of the pandemic on the development of social, language, and early literacy skills in preschool-aged children. We did so for typically developing children and those with developmental delays. Emerging evidence suggests that children with developmental disabilities were particularly vulnerable to the pandemic's effects because they rely to a great extent on health care and community services (Aishworiya & Kang, 2021) that were likely to have been disrupted by the pandemic. This exploratory research surveyed Canadian parents' perceptions of the impact of pandemic-related measures on their children's language, early literacy, and social skills development.

Pandemic-Related Measures and Impacts on Child Development

Numerous pandemic-related measures were implemented globally to control the spread of COVID-19, including restrictions on gatherings (Kaplan et al., 2020), meaning that many children were unable to play with their friends. Many extracurricular activities were also cancelled (Ontario COVID-19 Science Advisory Table, 2021). Schools and daycares were closed for extended periods around the world, including here in Canada. Canadian speech-language pathologists (S-LPs) were advised to engage in virtual practice during the pandemic (see Wong, 2020, for a review). And even when in-person activities were permitted, face masks were mandated, including in daycares and schools (Jackson, 2021). It would be reasonable to expect that such measures may have an impact on the development of social, language, and literacy skills of young children.

Pandemic-related measures have been demonstrated to have negative effects on children's social interactions. A meta-analysis by Viner and colleagues (2022) found that school closures and social restrictions were associated with an increased prevalence of mental health and emotional problems in children from preschool to adolescence, including increased anxiety and depressive symptoms. López-Bueno and colleagues (2021) suggested that social isolation during lockdowns may have led to increases in negative behaviours in preschool and school-aged children due to insufficient physical activity and excessive screen exposure.

There is less evidence of pandemic impacts on language development, and the direction of these effects is unclear. On one hand, there are several ways in which pandemic-related measures may have had negative impacts on language development. Extensive mask-wearing in a child's environment, such as daycare, may have made it more difficult to use lipreading for language learning, considering that infants as young as 8 months of age use information from lips as a part of their learning of native speech forms (Lewkowicz & Hansen-Tift, 2012). Indeed, mask-wearing in response to the pandemic has been associated with poor speech recognition for 4- and 5-year-old children, although not for older children (Kwon & Yang, 2023). Language development may have been negatively affected by disruptions in health services, such as the suspension of universal newborn hearing screening (e.g., July 2020 in Ontario). Early detection and treatment of congenital hearing loss are crucial for the development of speech and language (Runnion & Gray, 2019). On the other hand, it is also possible that pandemic-related measures might have had positive effects on language development. Based on normative data, Kartushina et al. (2022) found that children aged 8 to 36 months made larger vocabulary gains than expected during the daycare closures; this growth was observed in children who had less exposure to screens (e.g., watching television) and who were read to regularly and frequently. Therefore, pandemic-related measures may have had positive effects on language development in that caregivers had more time to talk and read with their children, in some cases offsetting negative effects.

Similarly, negative and positive effects of pandemic-related measures might emerge for early literacy skills. A longitudinal study by Roy (2022) found a decline in word reading skills between Grade 1 and 2 for children tested during the first 2 years of the pandemic. These findings were consistent with Bao et al.'s (2020) prediction that kindergarteners' reading ability would decline by 66% due to school closures. However, parents with children aged 2

to 4 years reported that they read more to children during COVID-19 compared to before, in part because they were home more often with their young children during lockdowns (Wheeler & Hill, 2021). Thus, like what has been reported for language skill development, some negative effects of pandemic-related measures may have been offset due to increased early literacy stimulation by more available parents.

Emerging evidence suggests that the pandemic had a more negative impact on children with developmental disabilities, who comprise 6.5% to 8.3% of all children in Canada (Berrigan et al., 2023), than on children with normal development (Aishworiya & Kang, 2021). This is in part due to interruptions or changes in health and support services (Aishworiya & Kang, 2021). Tohidast et al. (2020) explained that S-LP services were interrupted or delayed, possibly at critical stages of speech and language development; these disruptions in treatment have caused multiple problems for children and their families during COVID-19 lockdowns. For example, Tohidast et al. (2020) suggested that the pandemic may have adversely affected the quality of parental care and the way parents conducted speech-language exercises due to pandemic-related stress.

Parents of children with autism spectrum disorder (ASD) reported concerns about functional, social, and behavioural changes in their children, including a lack of communication opportunities due to service closures and social restrictions (Tokatly Latzer et al., 2021). Other effects have emerged for children with behavioural difficulties, such as inattention and hyperactivity. Wendel et al. (2020) found an increase in parent reports of attention-deficit/hyperactivity disorder (ADHD) symptoms in 4- and 5-year-old Canadian children before and after the onset of the COVID-19 pandemic, possibly linked to kindergarten virtual learning.

Overall, the pandemic disrupted the lives of Canadian families. Sanders et al. (2022) interviewed 10 Canadian mothers with preschool-aged children about how the pandemic affected their daily lives. The families cited the disruption of services as a major impact of the pandemic, leaving them exhausted and worried about their children's development.

The Present Study

The effects of pandemic-related measures reported in the literature were mostly negative for children's development. However, some positive effects were reported, related to parents having more time to stimulate their children by being at home with them more. Parents of children with developmental difficulties may have also experienced greater negative effects. The purpose of this exploratory study was to learn more about parental perceptions and the pandemic by addressing three research questions.

1. How do Canadian parents of preschool children (0 to 5 years) perceive the impact of the pandemic on their children's development, considering five pandemic-related measures that likely affected their lives?
2. What are parents' perceptions regarding the pandemic's effects on specific aspects of their children's development, such as social skills, language, and early literacy skills?
3. How do parents' perceptions differ between those who have children with developmental difficulties, those who have children without, and those who express concerns about their children's development without a diagnosis?

Both clinicians and public health measures benefit from knowing more about parents' perceptions, as this can help improve support systems and communication strategies. In addition, parents' concerns are also related to seeking early intervention for their child if needed (Doove et al., 2021). We conducted an online survey with questions assessing the parents' perceptions in each of two domains: pandemic-related measures and their children's skill development. As the first step of a validation process, we applied a clustering method to determine if the questions we designed aligned with our two domains of interest.

Method

Participants

A total of 253 participants were recruited for the study using Qualtrics (https://www.qualtrics.com), a commercial survey platform. Qualtrics contacted potential respondents who met our eligibility criteria from a pool of people who had previously expressed interest in participating in surveys. To be eligible for the study, participants had to be 18 years or older, reside in Canada, and have a child aged 5 years or younger. The participants and survey items analyzed in this study are part of a larger research project called the *Language and Literacy Environment Questionnaire*, which aimed to investigate how parents support their children's language and literacy skills at home, both in reading on paper and on screen. The protocol was approved by the Research Ethics Board of Dalhousie University (REB #2021-5570). Data were collected in June and July of 2022. Sixteen respondents were removed from the dataset as, after verification, they did not meet the eligibility criteria. Data from the remaining 237 respondents were analyzed. Their demographic characteristics are summarized in **Table 1**.

Table 1

Distribution of Respondents by Demographic Characteristics

	Number of respondents (*N* = 237)	%
Child's age (months)		
0–11	35	14.8
12–23	52	21.9
24–35	37	15.6
36–47	30	12.7
48–59	40	16.9
60–71	43	18.1
Child's first language		
English	200	84.4
French	20	8.4
Cantonese	5	2.1
German	1	0.4
Other	11	4.6
Province or territory		
Atlantic provinces	16	6.8
Québec	21	8.9
Ontario	109	46.0
Manitoba	14	5.9
Saskatchewan	8	3.4
Alberta	37	15.6
British Columbia	32	13.5
Highest level of education		
Some high school (Grade 9 or higher)	4	1.7
High school graduate	38	16.0
Some college/university	29	12.2
College/university graduate	121	51.1
Some postgraduate	10	4.2
Postgraduate degree	35	14.8

Note. Percentage calculated on the total number of respondents, *N* = 237.

We divided the respondents in three groups based on the following survey question: "Does your child have any difficulties in the following areas?" The areas were speech or language, hearing, ASD, reading, learning, behaviour, ADHD, and others. The response options were: "NO, "MAYBE but not diagnosed," and "YES - diagnosed by a professional." Respondents who answered "no" to all the development areas listed formed the NO group (*n* = 168). Respondents who answered "yes" to at least one developmental area formed the YES group (*n* = 23). Respondents who answered "maybe" at least once and did not answer "yes" to any areas listed formed the MAYBE group (*n* = 46). No difference was found between groups for the child's gender ($X^2(2) = 0.117$, $p = .943$) and parental education ($X^2(8) = 7.43$, $p = .47$). Differences between groups were found in age, with the NO group having a significantly lower mean age (in months; $M = 32.7$, $SD = 20.4$) compared to the "MAYBE" group ($M = 42.7$, $SD = 21.4$, $p = .012$) and the "YES" group ($M = 43.5$, $SD = 21.1$, $p = .029$).

Procedure

The entire questionnaire, along with the consent form, was written in English, and completed online using the Qualtrics survey software. Respondents were informed that completing the questionnaire would take approximately 20 to 30 min and that their participation was completely voluntary and anonymous. Upon completion of the questionnaire, respondents were compensated via Qualtrics recruitment services.

The questionnaire underwent a clear language and design revision by a hired professional. This allowed us to ensure that the questionnaire was written in clear or simple language so that respondents could easily understand the message and respond accordingly, making it easier for people with lower literacy skills to access information. The sections of the questionnaire relevant to the present study are described below.

Demographic Information

Parents answered demographic questions about themselves (e.g., marital status, education), their family (e.g., household income), and their youngest child of 5 years old or younger (e.g., age, gender).

Parent's Perception of the Pandemic

Given the lack of questionnaires on parents' perception of the pandemic and its effect on their children's development, we developed two question sets: one pertaining to pandemic-related measures and the other on the development of children's skills. Each set was comprised of a prompt, followed by a list of items (pandemic-related measures or skills) that respondents rated on a 5-point Likert scale in line with Dillman et al.'s (2014) recommendations: *Very good; Somewhat good; Neither good nor bad; Somewhat bad; Very bad*.

The first survey questions were related to pandemic-related measures and used the following prompt: "Do you think the following activities were good or bad for your child's development during the pandemic, and how much?" It contained five items displayed at once, one on each of the following pandemic-related measures: mask-wearing (by your child or others), daycare or school closures, virtual learning, cancellation of in-person extracurricular activities, and not being able to play with other kids in person. The second set of questions was related to skill development and used the following prompt: "Do you think the COVID-19 pandemic has been good or bad for your child's skills in the following areas and how much?" It contained three items: language skills, reading skills, and social skills.

Analyses

Because the survey questions were developed for this study, we used a partitioning method to verify if the items aligned in a meaningful and coherent way with the other items in their question set (Sireci & Geisinger, 1992), that is, pandemic-related measures or skill development. This verification was performed through Ward's method of hierarchical clustering (Murtagh & Legendre, 2014) on Spearman rank correlations.[1] To assess the parents' perception of pandemic-related measures and their impacts on their children's skill development, we performed separate analyses of variance (type II analysis of variance [ANOVA], using a significance level of .05) on the two question sets. Parents' perceptions were evaluated based on their responses to 5-point Likert scale items. The first ANOVA included the factor Group (YES, MAYBE, and NO) and Measure (mask-wearing by children of others, daycare or school closures, virtual learning, cancellation of in-person activities and not being able to play with friends in person). The second ANOVA included the factor Group (YES, MAYBE, and NO) and Skill (language, reading, and social).[2] In both ANOVAs, children's age and region[3] were also included to account for their potential influence on parents' perceptions of the pandemic. Post hoc analyses were conducted using the marginal effects method (Lenth, 2023), enabling comparisons between levels of a variable while accounting for the other factors in the model; results are reported with 95% confidence intervals and Cohen's *d* effect sizes obtained through the marginal effects method. Post hoc *p* values were adjusted using the Benjamini-Hochberg procedure.

Results

Survey Item Clustering

The hierarchical survey item clustering procedure resulted in two main clusters aligned with the theorized question sets, that is, pandemic-related measures and

[1] Ward's method implemented in the hclust function of the R language (The R Foundation, 2022).
[2] Plots of the residuals revealed no severe departure from normality.
[3] We included age to account for differences between groups and the variable region because pandemic-related measures may have differed by region in Canada. We refer to province or territory as region; see **Table 1**. To ensure that each level of the region variable had sufficient observations to run an ANOVA analysis, we combined two of the prairie provinces (Saskatchewan and Manitoba).

developmental skills, as shown in **Figure 1**. Meaningful subclusters also appeared. Within the pandemic-related measures, there was a subcluster composed of the two items about prohibiting personal interactions (i.e., "Not being able to play with other kids in-person" and "Cancellation of in-person extracurricular activities"). Within the developmental skill question set, a second subcluster emerged, capturing the reading skill and language skill items.

Pandemic-Related Measures

Parents' perceptions varied across the five pandemic-related measures items. **Figure 2** suggests that for most measures, the MAYBE group had the most negative view of the impact of the pandemic-related measures on the children's development compared to the YES and NO groups.

Significant main effects of the two-way ANOVA indicated that the reported perception differed by Group ($F(2) = 5.519$, $p < .001$) and Measure ($F(4) = 15.507$, $p < .001$). The interaction between Group and Measure was not statistically significant, $F(8) = 0.547$, $p = .822$. Age ($F(1) = 1.886$, $p = 0.170$) and Region ($F(5) = 1.3998$, $p = 0.222$) were also included in the model but did not show statistically significant main effects.

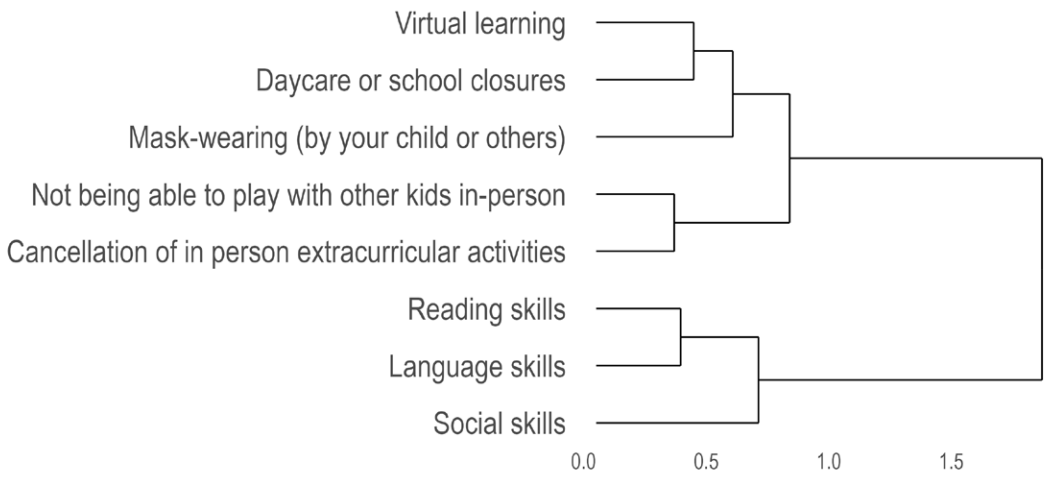
Post hoc pairwise comparisons of the Group factor revealed that when examining the impact of pandemic-related measures on their children's development, the MAYBE group ($M = 3.61$, 95% CI [3.45, 3.78]) reported a more negative view compared to the YES group ($M = 3.29$, 95% CI [3.06, 3.52]), $p = .028$, $d = 0.28$. The MAYBE group also had a more negative view than the NO group ($M = 3.33$, 95% CI [3.24, 3.42]), $p = .004$, $d = 0.24$. No significant difference was found between the YES group and the NO group, $p = .740$.

Post hoc analyses were conducted on the Measure factor, comparing each measure with the remaining measures combined. Parents reported a significantly more negative impact for "Not being able to play with friends in person" ($M = 3.81$, 95% CI [3.60, 4.02]) compared to the other pandemic-related measures, $p < .001$, $d = 0.42$. In contrast, parents perceived "Virtual learning" ($M = 3.06$, 95% CI [2.85, 3.27]) as having a less negative effect than the other pandemic-related measures, $p < .001$, $d = -0.38$. The perception of "mask-wearing" ($M = 3.22$, 95% CI [3.01, 3.42]) showed a notable trend of being less negative compared to the other measures, $p = .055$, $d = -0.21$. Other measures did not show significant differences.

Developmental Skills

Visual inspection of **Figure 3** suggests that, as with pandemic-related measures, the MAYBE group generally perceived the impact of the pandemic on skill development as more negative than the YES or NO groups. **Figure 3** also suggests that respondents believed that COVID-19 had a more negative impact on the development of their children's social skills than on language and literacy skills. This was supported by the statistical analysis.

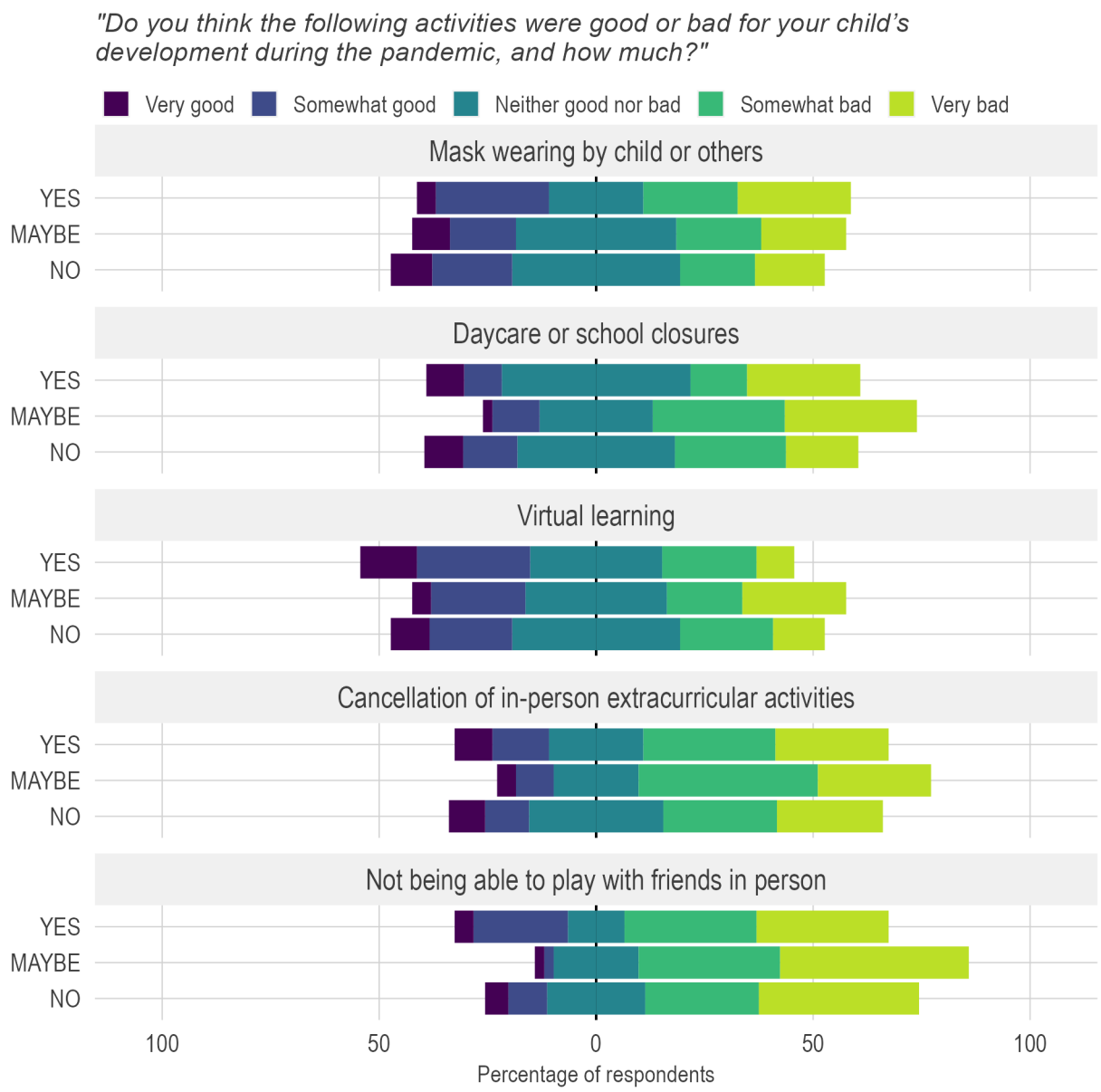
Figure 1



Hierarchical clustering of the questions included in the survey

Note. Ward hierarchical clustering using Spearman rank correlations. The x axis is the value of the Ward minimum variance criterion, used as a distance measurement.

Figure 2



Parents' perceptions of pandemic-related measures

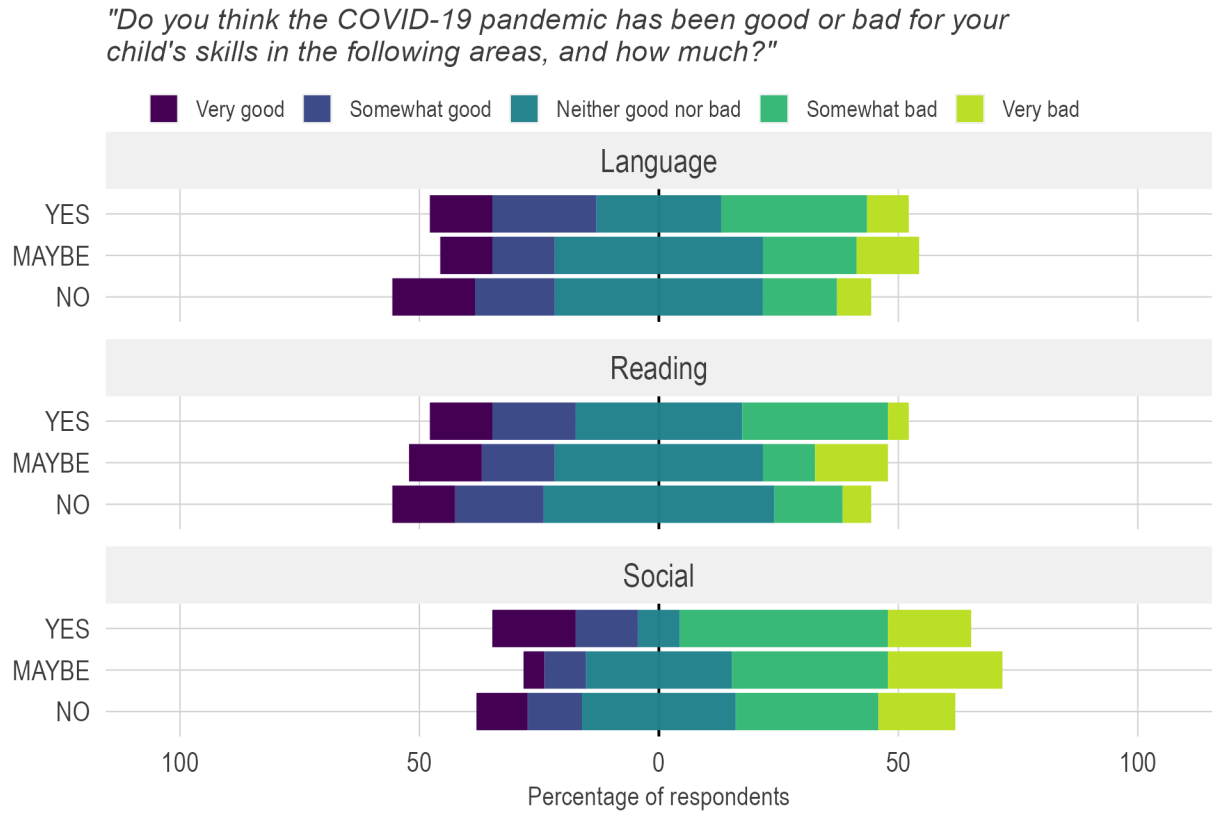
Note. Distribution of Likert-scale responses across 5 levels (*Very good* to *Very bad*), by pandemic-related measure and parent-reported presence of child developmental difficulty (YES, MAYBE, NO). $N = 237$.

ANOVA analysis revealed significant main effects for Group, $F(2) = 3.025$, $p = .049$, and Skill, $F(3) = 15.165$, $p < .001$. The interactions between Group and Skill, $F(4) = 0.268$, $p = .899$; Age, $F(1) = 0.395$, $p = .530$; and Region, $F(5) = 1.792$, $p = .110$, were not statistically significant..

Post hoc pairwise comparisons of groups showed that the MAYBE group had a significantly more negative perception ($M = 3.21$, 95% CI [3.01, 3.42]) compared to the NO group ($M = 2.94$, 95% CI [2.82, 3.05]), $p = .042$. There was no significant difference in perception between the YES group ($M = 3.01$, 95% CI [2.72, 3.29]) and the NO group, $p = .662$, or between the YES group and the MAYBE group, $p = .346$.

Post hoc comparisons were conducted to examine the perceived impact of the pandemic on each skill, compared

Figure 3



Parents' perceptions of the impact of COVID-19 on children's developmental skills

Note. Distribution of Likert-scale responses across 5 levels (*Very good* to *Very bad*), by developmental skill and parent-reported presence of child developmental difficulty (YES, MAYBE, NO). $N = 237$.

to other two skills combined. Results showed that parents reported a more negative impact for social skills ($M = 3.37$, 95% CI [3.16, 3.58]) compared to other skills combined, $p < .001$, $d = 0.42$. In contrast, parents reported a significantly less negative impact of the pandemic on reading skills ($M = 2.87$, 95% CI [2.66, 3.08]), $p = .037$, $d = -0.25$. The perceived impact on language skills ($M = 2.92$, 95% CI [2.71, 3.13]) did not significantly differ from the other skills, $p = .115$.

Discussion

The purpose of this exploratory study was to understand parents' perceptions of the impact of the pandemic on their preschool-aged children's development by examining their views on five specific pandemic-related measures and how the pandemic affected their children's language, early literacy, and social skills. Additionally, the study examined differences in parents' perceptions between those who reported having a child with developmental difficulties and those who did not, as well as those who reported concerns about their children's development without a formal diagnosis.

Validity evidence for our survey came from clustering analyses. These analyses showed that the survey items were organized into the hypothesized distinct domains (i.e., pandemic-related measures and developmental skills), with some subclusters in which parents' perceptions of language and reading skills were correlated in a subcluster separate from social skills.

Our first research questions addressed how parents reported the impact of five pandemic-related measures on their children's development. We present the results from the least perceived negative impact to the most impactful in the parents' view. We found that parents perceived "virtual learning" as having the least negative impact on their children's development, with many parents rating it as very good or somewhat good (see **Figure 2**). It is possible that parents perceived the virtual sessions as more positive than the complete absence of school or daycare. Another interpretation could be that parents were less likely to be concerned about virtual learning because this measure was less likely to target preschool children. Nevertheless, this

finding is of interest to clinicians, including S-LPs, because it suggests that many parents were receptive to virtual learning and may also be open to virtual therapy.

The finding that "mask-wearing" tended to be a measure that parents were less concerned about is noteworthy, particularly considering the prominent and heated public debates on the issue. One interpretation of this finding is that parents were aware of the essential role of wearing a mask in preventing the spread of COVID-19, thus seeing it as a positive measure for their children's health and development. During the pandemic, it is likely that parents had to negotiate between wearing masks to promote their family's health and the potential negative effects of masks on language processing in children (e.g., Kwon & Yang, 2023). It would be useful for clinicians to hold discussions with parents and educators and provide them with strategies for enhancing communication while wearing masks, like ensuring that the child's attention is focused on you before speaking or using gestures to support communication (see Baltimore & Atcherson, 2020, for more recommendations).

When compared to other measures, parents reported that "Not being able to play with other kids in-person" was the most negative for their children's development, which limited their children's social interactions. This finding is consistent with previous research indicating that parents frequently cited the impact of the pandemic on their children's social skills as a primary concern (e.g., Tokatly Latzer et al., 2021; Sanders et al., 2022). In addition, this result is in line with the parents' perception of the impact of the pandemic on developmental skills. In relation with our second research question, we found that parents perceived greater negative impacts of the pandemic on their children's social skills than on their language and early literacy skills. These results are not surprising, as the impact of the pandemic on children's social skills was probably the most discussed issue during the pandemic. One question that arises from our exploratory study's results is whether parents are informed about the role of language acquisition in the development of social skills. Doove et al. (2021) found a direct association between language development and social competence in preschoolers. A potential avenue for further research is to assess whether parents and educators are knowledgeable that children's social competence is related to language development. This would be valuable information because parents' and educators' concerns are related to early detection of language deficits (Doove et al., 2021).

The third research question aimed to determine whether parents' perceptions differed according to whether they reported having a child with or without developmental difficulties. The results indicated that parents who suspected that their child had at least one developmental difficulty (the MAYBE group) reported higher levels of negative impacts of the pandemic than parents reporting having a child with or without difficulties (YES and NO groups), who reported similar perceptions. This pattern was somewhat surprising to us, and yet, we think that it suggests an association between uncertainty and perception of the pandemic's impact. Sanders et al. (2022) listed gaps in health care as one of parents' primary concerns, with very clear evidence of shifts in health services across the country. Parents suspecting that their children had difficulties were likely to have felt frustrated in their attempts to get services, likely waiting even longer than normal for diagnostic and treatment services. These concerns would be justified, as parents' concerns are often followed by an actual diagnosis (Doove et al., 2021). Delays might have been even longer for those without a diagnosis who are not yet connected in the system. The absence of a diagnosis could also mean that parents do not have social supports such as through a support group, which may increase negative perceptions of the impact of the pandemic, with its many other restrictions on social connections. As a result, parents had to take responsibility for finding, filtering, understanding, and then using information to make health-related decisions about their children (Doove et al., 2021). Although these findings are suggestive, we cannot rule out the possibility that parents reporting that their children might have a developmental disability not yet diagnosed may include respondents who are generally more anxious about their children's development. They may also have had a more negative view of general pandemic prevention measures. This is a limitation of our study as these dimensions were not included in our survey.

The equivalent level of concern reported by the parents with and without developmental disabilities is surprising, as parents of children with diagnosed difficulties were expected to be more affected by the pandemic than parents with typically developing children (Aishworiya & Kang, 2021). A first interpretation is that for children with diagnosed difficulties many health care services, such as S-LP therapy, were available virtually during the pandemic (Wong, 2020). One limitation of our study is that we did not ask specifically about the cancellation of health services as a pandemic-related measure. A second explanation may arise from the positive effects of the pandemic on language and early literacy skills (Kartushina et al., 2022). Being more often at home with their children, parents may have had more time for developmentally beneficial activities, such as reading with their children (Wheeler & Hill, 2021).

In conclusion, our exploratory research provided insight into how parents perceived the pandemic's impact on their children's development. The results suggest that social skills development is a main preoccupation for Canadian parents. Awareness should be raised that, although parental concern about social skills is legitimate, these skills are closely linked to preschool children's language development.

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