

Mitigating the Impacts of the COVID-19 Pandemic on the Development of Children Aged 0 to 5: Adapting Public Health Practices to Families and in Living Environments

June 9, 2020

Notice

This document was drafted in response to a request from the Direction de santé publique (DSPu) in the context of the COVID-19 public health emergency. Produced in a short period of time and based on knowledge from previous projects conducted by the Institut national de santé publique du Québec (INSPQ), certain excerpts of which are reproduced here in their entirety, as well as on a summary and non-exhaustive review and analysis of the scientific literature, this document presents observations that may need to be revised based on the evolution of scientific knowledge related to the current pandemic. The INSPQ has therefore set up a scientific monitoring project for COVID-19 in order to rapidly modify this response, if necessary.

Summary

The COVID-19 pandemic and the measures put in place to reduce the spread of the virus are transforming the daily lives and living environments of Quebec families. This document identifies the conditions created by the context of COVID-19 that may influence the development of children aged 0 to 5 and examines different public health measures to be put in place or adapted to support professional workers in contact with families and children. Particular attention was paid to vulnerable populations and social inequalities in health. This review shows that the following conditions can impact the overall development of children: increased time spent with family, disruption of daily routines and lifestyle, reduced social relations with caring adults, increased risk of stigmatization or of social inequalities in health. Recognized effective public health practices can be adapted to the current context by prioritizing five protective factors capable of reducing the negative impact of changing living conditions on child development. In total, 21 action strategies adapted to the context of the COVID-19 pandemic make it possible to act on one or another of these factors (see table 1). To reach their full potential, the conditions for success of the actions to promote total child development must also be maintained and adapted to the context of the pandemic.



Introduction

The first years of life are crucial in child development, making them an important public health concern ^(1, 2). Early experiences are the foundation on which a child builds his or her learning and abilities. They shape behaviours and personal skills throughout life ⁽³⁾. Furthermore, from the moment of the child's birth and according to the ecological systems theory, the immediate family occupies a privileged place in his or her development. Extended family, friends, neighbours, and community services are also important settings, as are economic and social context and public policies ⁽⁴⁾.

The COVID-19 pandemic and the measures put in place to mitigate it, which undeniably reduce the spread of the virus, are transforming the living environments and daily lives of Quebec families. This unusual situation is likely to have impacts on the mental health, safety, and well-being of children and their families. Experts even foresee negative impacts from the lockdown on the psychosocial development of children and young people in the short and long term ^(5, 6). Since children's experiences are inseparable from those of their families, public health interventions must take into account the family's living context and the children's other living environments. Some experts predict that these consequences could continue beyond the crisis ⁽⁷⁾. It is therefore important to consider this when planning assistance measures and long-term interventions, and not only during the period of deconfinement ^(8, 9).

In addition to its effects on the family unit, the current situation can also impact communities on several other levels, such as weakening the safety net around families and children who accumulate social and economic vulnerability factors, or even an increased risk of stigmatization ⁽¹⁰⁾. The impact of the COVID-19 pandemic is not the same for everyone and social inequalities in health are likely to be accentuated: the most disadvantaged populations and neighbourhoods are generally those most affected by lockdown measures, either through workplace closures, the difficulty for citizens to apply individual protection measures, or the inability of parents in precarious employment situations to access financial assistance ^(5, 7).

The COVID-19 pandemic, the crucial role that early experiences play, and the influence of proximal and distal living environments in child development highlight the importance of acting in a concerted and multi-level way to counteract the disruptions caused by the current crisis and the measures put in place. Knowledge gained from similar situations can guide us in implementing interventions for families and young children.

Objectives

The main objective of this document is to support local public health authorities in identifying the best public health practices supportive to the development of children aged 0 to 5 in the context of the COVID-19 pandemic, with care taken to not increase social inequalities in health.

The specific objectives are:

- Discern from the literature related to the context of COVID-19 or to a similar health crisis the conditions that have an impact on the development of children aged 0 to 5 and their families;
- Identify action strategies adapted to the context of COVID-19 and likely to reduce the negative impacts of the pandemic on child development.

The response to these objectives is to make relevant information about the COVID-19 pandemic rapidly available to local public health authorities. This response is consistent with the one recently produced on promoting mental health and well-being through community resilience and social cohesion in the context of COVID-19 (11).

Methodology

To meet these objectives, a literature search was carried out. It is based:

- on a summary and non-exhaustive analysis of the literature in the bibliographic databases that relates to the well-being and development of children in the context of health crises, including COVID-19 (databases consulted and keywords used available upon request);
- ▶ an overview of the scientific and grey literature based on scientific watch of COVID-19 and child development, parental practices, attachment, children's living environments, and other psychosocial aspects related to childhood produced by the INSPQ since March 24, 2020 (databases consulted and keywords used available upon request);
- an additional overview of the grey literature: locating documents on Google and other sites (e.g., World Health Organization, official government or institutional websites dealing with early childhood);
- existing documents published by the INSPQ in the field of child development (of which certain excerpts may be reproduced in their entirety).

This document offers a rapid response based on a summary and non-exhaustive review and analysis of the literature carried out between May 12 and May 22, 2020. Any document liable to demonstrate one or another of the objectives derived from the scientific or grey literature in French or in English was selected. Systematic reviews were given priority. However, given the literature available, primary studies as well as expert opinions and policy papers were included.

This document does not include an exhaustive review of the literature covering the impacts of COVID-19 on the development of children aged 0 to 5, nor a review of assessments of intervention programs.

Child development in the context of COVID-19

Children's living environments have been transformed during the pandemic. These transformations can have an impact on families' living conditions and, consequently, on child development and the well-being of families.

Changes in children's living environments

The exceptional context of COVID-19 is causing changes in all areas of children's lives.

Family life disrupted

Many parents must deal with an entirely new professional reality. Some of them have lost their jobs, others have seen a part of their professional activities cut off and must cope with a loss of revenue. For parents working from home, the work-family balance can be demanding. On the one hand, not all parents are equal in terms of having a dedicated workspace at home or being able to concentrate on a task for the number of hours necessary to meet work deadlines. On the other hand, employers' flexibility and understanding with regard to parents working from home is variable. For parents who still have to go in to work, especially those who work in essential sectors, working conditions have been greatly affected: number of work hours, changes to physical environments to comply with physical distancing recommendations, increased exposure to COVID-19, etc. Moreover, the physical layout of the family home is not always adapted to the conditions of a lockdown. These situations can cause stress and have repercussions on the family and children (12-14).

Reduced accessibility to other living environments

Families and children are for the most part cut off from the other living environments in which they usually developed. In particular, there is a loss of contact, mainly physical, with family members who do not live under the same roof, such as grandparents, extended family, or any other significant adult in the life of the child or parents, making it more difficult for them to offer their informal support to the family. The closing of daycare centres and schools—but also of playgrounds, libraries, and community organizations with a play area—brings a reduction in social contacts for children, as well as diminishing opportunities for free play, an important factor in development (15). Several families and children must also deal with the complete shutdown or the reduction of certain prescribed services, such as health or social services. Some of these services are now offered by telephone or videoconferencing.

Exposure to unusual experiences

During the pandemic, certain children are exposed to particularly difficult situations, such as the sickness or death of a loved one, and react differently depending on their age (16). Other children can be deprived of a parent due to geographical location, employment situation, health conditions, etc.

Lastly, the social context of the COVID-19 pandemic can also bring out its share of racism and discrimination towards certain communities and segments of the population who may be identified as at risk or responsible for spreading the virus (17, 18).

Impacts of pandemic living conditions on child development

Transformations of living environments, brought about by the COVID-19 pandemic, undeniably lead to certain changes in families' living conditions. These changes may be positive and facilitate child development even though others may, on the contrary, have a negative impact on it as well as on families' mental health and well-being. Additionally, these disruptions can cause children to develop new behaviours or exacerbate problems that existed before the pandemic ⁽¹⁹⁾.

Time spent with family

The increased time spent together as a family can have a positive effect on some children, particularly in families where lockdown measures create an opportunity to increase quality time together and to provide more learning experiences for the children. Conversely, when the family's resources and abilities are affected, there may be a decrease in opportunities for stimulation ⁽²⁰⁾. Furthermore, time spent with family in a "vacuum," particularly when housing conditions are unfavourable, can lead to undesirable behaviours in children. Combined with parental anxiety, these situations amplify the probability of an excessive or aggressive parental response, leading to a greater incidence of neglect or family violence ^(9, 13, 21–24).

Some parents experience multiple stressors: stress related to changing working conditions or to losing a job, loss of one's usual support network, a family member's health problems, substandard or overcrowded housing, etc. These stressors may undermine parents' confidence in their ability to provide appropriate care for their children ⁽⁶⁾. For example, certain studies dealing with the impacts of the 2003 SARS outbreak show that the fear of transmission and infection is greater among the parents of young children than among the general population ⁽²⁵⁾. Furthermore, the accumulation of multiple stressors increases the risk of exposing children to toxic stress that may have long-term effects on physical and psychosocial health ⁽³⁾.

Routines

It has been shown that children's routines are critical for learning, feeding, and social development ⁽²⁶⁾ in addition to being an important coping mechanism for children with behavioural problems or socio-emotional difficulties ⁽²⁷⁾. The possibility of creating and maintaining a new family routine in the context of a pandemic offers children the possibility of finding a structure favourable to their development.

Lifestyles

Children's lifestyle habits, essential to their healthy development, are modified by lockdowns and the loss of contact with the child's other living environments. In fact, while some children spend more time playing with their parents, going outside, or benefiting from homemade meals than before the pandemic, certain family situations predispose children to a decrease in physical activity and proper nutrition, an irregular sleep routine, and an increase in, or lack of supervision of, screen time (28, 29).

Supporting adults and other living environments (e.g., SDGE¹)

Children who are exposed to difficult situations, such as physical separation or social distancing with parents or guardians infected by COVID-19 or who are at risk of contracting the disease ⁽³⁰⁾, must rely on the presence of adults who are sensitive to, and concerned about, their well-being ⁽²³⁾, otherwise they are more vulnerable to depression, stress, anxiety, avoidance behaviour, and post-traumatic shock ⁽²⁹⁾. Indeed, studies examining the impacts of the 2003 SARS crisis reveal post-traumatic stress scores four times higher in children placed in quarantine than in those who were not ⁽³¹⁾.

Essential support and advice from other living environments should also be considered. For some families, daycare centres and preschools are more than places of learning: through them families have access to a range of services essential to their well-being, such as meals or social and health services ^(32, 33), or even moments of relief when dealing with the responsibility of an elderly parent or a disabled family member. Furthermore, this loss of contact with formal networks deprives families, especially those with little access to informal networks such as supportive neighbours, of helpful people who can keep an eye on children, if need be, or watch out for worrying signs related to their development ^(23, 34). Children's health may also be affected by the disruption of routine checkups ^(6, 35). Supportive neighbours or frequent virtual contact with extended family or health professionals may compensate for some of the vigilance provided by the formal network ^(7, 9).

Discourse around COVID-19

Finally, the racism and discrimination emerging from the context of the pandemic may also lead to the stigmatization of certain communities and segments of the population, which may render affected people reluctant to avail themselves of health services in case of need (36, 37). For some children, their healthy development may be compromised. Children may also experience intimidation or intimidate other children (38). Promoting inclusive speech that avoids targeting certain groups, especially in the media (39), but also in families and other living environments, may diminish the stigmatization of certain groups.

Social inequalities in health during COVID-19

The current health crisis reveals social inequalities in health and clearly shows that individuals and communities are not equal when it comes to the pandemic. Many studies on this issue highlight the vulnerability factors of populations with regard to the risk of catching COVID-19 (e.g., working conditions, overcrowded housing). While the extent of the impact on vulnerable populations will not be known for months or even years, early studies aimed at measuring the social inequalities in health during this health crisis suggest that public health messages and government actions must more than ever take into account the varying realities of families (40, 41).

In this regard, transformations in the family and other living environments of children can be particularly harmful to families who are already living in precarious conditions. For example, American studies affirm that families in ethnic and minority cultural communities, for whom the direct impacts of COVID-19 in terms of mortality are greater, require special attention ^(6, 30). It is also true for families with a low socioeconomic status who are much more affected by the pandemic ^(30, 42). In the absence of food and health services and the

SGDE is the French abreviation for Services de garde éducatifs and are daycare centres in Québec with government grants.

stimulation offered by preschools and daycare centres, especially useful for these families, and without compensatory measures, their well-being and their children's development may be compromised (33).

Action strategies adapted to the context of COVID-19

Acting on protective factors

The established public health measures that promote the full potential of the child must adapt to the context of COVID-19. First of all, an overview of the existing literature dealing with the impacts of health crises similar to the COVID-19 crisis, as well as current literature, indicates that it is possible to act on living conditions modified with the help of interventions and actions targeting protective factors at the different levels of influence (individual, family, community, society). The following table shows protective factors and certain action strategies to put forward in order to mitigate the impacts on living conditions in the context of a pandemic highlighted in the previous section. It is based on the scientific literature in the context of a health crisis and of COVID-19 (23, 30, 43–47).

Table 1 Protective factors and action strategies adapted to the context of COVID-19

Protective factors	Adapted action strategies
Basic needs met and supportive positive parental practices for quality time spent as a family	Inform parents about resources (food, housing, clothing);
	Provide emotional support to parents;
	Maintain, through whatever means available, regular follow-ups with families at risk for abuse;
	 Maintain the continuity and access to mental and physical health services, whether online or as needed in-person;
	 Support families in the organization of daily high-quality parent-child activities adapted to their specific needs;
	Raise parental awareness about the importance of self-regulating their thoughts, emotions, or behaviours, and help them put this into practice.
Routines which help develop the child's cognitive, language, social and emotional skills	 Reinforce messages and support about maintaining daily routines (meal times, sleep, etc.);
	 Raise parental awareness about the importance of encouraging their child's self-efficacy, in everyday protective actions like handwashing, for example;
	Invite parents to communicate about and discuss COVID-19 with their children, including with age-appropriate material;
	Inform parents about the importance of children regulating their emotions and put forward age-appropriate tools to facilitate this learning;
	Invite parents to underscore the positive aspects of each day, for example by illustrating them with stories of sharing and mutual aid.
Family-based practices that help develop physical skills and child safety, as well as the parents' sense of well-being.	Promote the practice of safe physical activities in the family;
	Analyze with the parents the physical environment of the home to make sure it is safe for the children;
	Make tools available to the parents to help manage stress, anxiety, and uncertainty, that can be applied to the family or on an individual basis (e.g., mindfulness, self-compassion, acceptance);
	Identify, with the parents, opportunities for self-care or for improving their health.

Table 1 Protective factors and action strategies adapted to the context of COVID-19 (continued)

Protective factors	Adapted action strategies
Contacts with other living environments and supporting adults who provide a sensitive and reassuring presence for children	Ensure that children benefit from regular online contacts with significant adults from whom they are physically separated (grandparents, professionals who work with families) and make the material available, if necessary;
	Provide psychosocial support to children, especially those in quarantine;
	Identify and facilitate the presence of an adult who is attentive and sensitive to the needs of the child if the parent is no longer available (e.g., sickness);
	Encourage parents to maintain reassuring and comforting social connections in ways that respect physical distancing measures.
Inclusive speech to help reduce inequalities	Make targeted community support available to marginalized families, including those affected by racism or stigmatization related to COVID-19;
	Inform families about resources for financial assistance and social programs available (e.g., employee assistance, mental health services, paid leave).

Conditions for successful interventions in the context of COVID-19

In 2014, the INSPQ produced a state of knowledge report on the conditions for success of the actions most likely to promote children's overall development ⁽⁴⁸⁾. The literature reviewed in the context of COVID-19 indicates that these conditions remain relevant for guiding public health actors. The following section is organized so as to present the conditions for successful interventions most likely to promote the development of children and then underline their application in the current context (boxes).

Promote the cooperation and engagement of the stakeholders

In normal times, several different actors, including parents, contribute to child development. In the context of a pandemic, communications and collaboration between these actors remains essential to ensure the complementarity of the actions and maintain a safety net around families. This also helps mobilize as many people as possible to meet the needs of children and their families, and ensure their well-being ^(7, 9, 46).

In the context of COVID-19

Considering the total or partial closure of several services intended for children and their families, it is relevant to explore new collaborations, notably with people who work in essential sectors in the community (e.g., mail, delivery, pharmacy, grocery stores) or nearby. These people are well placed to detect the needs of the most vulnerable families, as well as certain areas of concern, such as violence ⁽⁹⁾. In addition, the collaboration of employers in relaxing certain rules concerning the work-family balance makes life easier for families ⁽¹³⁾.

Meet the needs of children and families

In non-COVID-19 times, considering the parents' perspective so that the actions taken match the parents' needs is a prerequisite for successful interventions and helps to strengthen their commitment.

In the context of COVID-19

The realities of families are variable, and their needs are not well documented in the context of a pandemic. It is therefore crucial to communicate regularly with the family both to inform them and to stay abreast of their reality, needs, and activities (45,49).

Strengthen protective factors and reduce risk factors in child development

Just as the presence of several risk factors in the life of a child can lead to increased vulnerability, the accumulation of protective factors can create favourable conditions and positive effects on his or her development. Furthermore, the data show that interventions targeting both the development of the child and families' living conditions are the most promising.

In the context of COVID-19

During the health crisis, the main factor ensuring a positive adaptation in the child is the presence of a sensitive and responsive parent. Consequently, it is important to focus on parents' well-being since it contributes favourably to that of their children (30,43).

Ensure the presence of quality criteria for interventions

The quality of the interventions guarantees their success. Quality criteria such as interventions based on recognized best practices, trained and competent staff, and post-implementation follow-up measures remain relevant. However, the current context imposes new intervention modalities that call for certain considerations to ensure that quality is maintained.

In the context of COVID-19

Direct family services staff should benefit from an offer of supervision, as well as spaces for discussion and feedback with their peers, which makes it possible to better anticipate and support families' needs during and after the crisis (50-53)

In the context of COVID-19, when in-person visits are not possible, the use of online services represents a recommended strategy for mitigating the risk of abuse and maintaining health checkups for the child ⁽²⁸⁾. The use of digital platforms such as video, text messages, or the use of online content offers several advantages ⁽⁵⁰⁻⁵³⁾:

- Possibility of registering new families;
- ▶ Delivery of support-service, referrals to resources, and remote transmission of information;
- Easy participation of both parents;
- Regular and sustained contact to maintain family commitment.

Work towards proportionate universality

In an effort to respect the principle of proportionate universality, it is relevant to consider the varying contexts in which families live, as well as their resources.

In the context of COVID-19

Depending on the impact the pandemic has on families, it can be necessary to adjust the objectives initially identified by the services in order to give priority to the families' most immediate needs (9, 45, 54).

In addition, we must be vigilant about the issues and barriers to access services for certain vulnerable families when these are offered by other channels such as videoconferencing or telephone calls (13, 26, 35, 45, 52, 55-58), including:

- Little or no internet access;
- Compromised confidentiality;
- Difficulty assessing the family situation, especially when space is shared with an aggressor;
- Communication skills and reading non-verbal signs;
- Limitations in observing parent-child interactions.

In certain cases, the following solutions can be applied, depending on the type of obstacle encountered (51, 52, 54, 58):

- Use of text messaging or the telephone to make up for the lack of internet access;
- Use of an intermediate resource as an alternate point of internet access;
- Sending information by mail or to a designated drop-off or pick-up location;
- When parent-child interactions are impossible, ask the parents to record the interaction with their child during a daily activity, and then share this video with the professional worker. This video can be used to reflect together on the parents' strengths.

Focus on the child and all levels of influence

The most promising actions are part of a comprehensive and ecological perspective that combines direct interventions with the child and his or her living environments. In addition, while certain tips and tricks aimed at parents to promote their children's development are welcome, they must be accompanied by a series of measures that allow them to fully play their role and ensure an adequate living context for the families.

In the context of COVID-19

Work-family balance measures, such as the use of a bank of sick leave that allows parents to remain with their children when daycare centres are not available, help lighten the load of family responsibilities during a lockdown (13).

Similarly, food-supply measures should also be facilitated ⁽⁵⁵⁾. An increased social safety net and financial and material assistance to families who have seen their sources of income affected should also be supported ^(13, 35, 44, 45, 49).

Permit significant intensity or significant accumulation

A child's early years are a period of rapid cognitive, social, and physical growth to which particular attention must be paid by fostering opportunities for stimulation.

In the context of COVID-19

Professional workers can support families by implementing and promoting home learning experiences, using the following strategies (49, 58):

- Individualized routines for the child, for example a daily reading period, an activity, or time allotted for free play outdoors;
- An optimal duration for the activities, according to the child's abilities;
- Appropriate content for the child's age and developmental level;
- Identifying priority activities and those that develop critical thinking;
- Identifying resources that can provide free books, including downloading options for families who lack books;
- Concern for families' linguistic abilities, and the possibility of using audiobooks, if this is the case;
- Appreciating the role of the parents and their strengths in their child's learning experience.

Be complimentary and consistent

To ensure conditions that promote child development and the mental health and well-being of each member of the family, these actions require a close coordination and collaboration between all the actors involved.

In the context of COVID-19

An intersectoral approach ensures that the needs of children and their families are addressed holistically, leading to better outcomes $^{(6, 28, 35, 44)}$.

In addition, communication, information sharing, and clarified roles and referral processes with other sectors are practices which avoid overlap or gaps in services, considering how quickly information changes in the context of COVID-19 ⁽⁵⁴⁾. In this regard, many experts concerned by the current crisis, but also by past events, highlight the importance of planning actions that affect the different phases of the pandemic ^(8, 9, 46).

Take into account the characteristics of the children and families targeted

Actions that take into account family characteristics (e.g., children's developmental stage, families' cultural practices) are more likely to achieve their goals.

In the context of COVID-19

Certain practices, in the context of a lockdown, make it more possible to stay in contact with families. These practices can vary from one family to another and sometimes several attempts and adjustments are necessary to better understand and meet their needs (44, 53, 54, 58). Here are some examples:

- Using a family's preferred means of communication, as well as a consistent, accurate, and reassuring communication style;
- Flexible services that favour families' availabilities, even outside of normal working hours if needed, while maintaining a clear limit;
- Weekly blocks of time reserved for communicating with families, as well as regularly scheduled times for families who have questions or need support;
- Services adapted to a family's linguistic abilities (58);
- Referral methods adapted to the availability of resources in the community.

Conclusion

The overall objective of this document was to support local public health authorities in identifying the best public health practices favourable to the development of children aged 0 to 5 in the context of the COVID-19 pandemic, with care taken to not increase social inequalities in health. Indeed, the current situation and exceptional public health measures put in place impose changes that public health actors and their partners must account for in their interventions with families.

Child development is actualized according to the constraints and opportunities of his environment. A supportive, stimulating, and secure environment favours the development of a child's full potential. On the contrary, when the environment is hostile or unstable, and when available resources are minimal, the risks of the child suffering from developmental delays or socio-emotional disorders are amplified. In early childhood, experiences come mostly from the family, but the influence of more distal environments should not be overlooked, given their direct or indirect contributions to the development of the child. It therefore seems essential to support both individuals and the different living environments in which they evolve.

Experts' observations on the current situation indicate that the exceptional measures put in place can contribute to increasing certain risk factors for the development of children. Furthermore, it is possible to adapt interventions intended for young children and their family to better respond to this unusual situation, while also respecting the conditions favourable to their maximum impact.

Some additional resources (in French version only, except the last in this list)

Some promising initiatives to support child development in the context of COVID-19 and for all phases of deconfinement:

- Cadre de réflexion sur les enjeux éthiques liés à la pandémie de COVID-19
- ► Trousse portant sur l'identification des personnes à risque de vulnérabilité psychosociale
- Pistes d'interventions psychosociales pour préserver les jeunes des impacts des catastrophes naturelles ou technologiques
- ▶ Prévenir la violence et le suicide dans un contexte de pandémie de COVID-19 quelques pistes
- La résilience et la cohésion sociale des communautés pour favoriser la santé mentale et le bien-être en contexte de COVID-19
- Les différentes réactions au deuil chez les enfants
- ► Conditions for Success of Actions to Promote Total Child Development: State of Knowledge

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Mitigating the Impacts of the COVID-19 Pandemic on the Development of Children Aged 0 to 5: Adapting Public Health Practices to Families and in Living Environments

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