

Experiences of Albertan Children During the COVID-19 Pandemic: A Technical Report from the All Our Families Cohort

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Report prepared by

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Executive Summary

The issue

The psychological, economic, and social effects of the pandemic are pervasive for families and children as they navigate challenges with school closures, home-schooling, and disruptions in routine activities. Contemporary quality data on family coping during this unprecedented global pandemic is crucial to inform strategies and resource allocation to minimize adverse health, mental health and financial outcomes for families and children.

What we did

This report describes data collected from approximately 1000 Albertan children from a COVID-19 Impact Survey implemented in May 2020; children of mothers who were participants in the All Our Families (AOF) cohort. Results from this cross-sectional survey, coupled with longitudinal follow-ups can identify opportunities for prevention and intervention to promote well-being and resilience during a pandemic in Alberta.

What we found

Children between the ages of 9 and 11 years from urban Alberta families described their experiences during the COVID-19 pandemic - a time when access to peers was limited, social distancing and online schooling was enforced, and extracurricular activities were cancelled. These children represent a cross-section of urban Albertan families, who are parenting young children and juggling work and child-care responsibilities. Although their usual routines were disrupted, children reported engaging in a variety of indoor and outdoor activities (e.g., playing sports, doing crafts, building, learning a new hobby). Overall, most children reported adequate levels of sleep (9+ hours per night), whereas they struggled to meet physical activity and screen time guidelines. Children reported loss of friends and interaction with teachers with school closure, and less than half (46.7%) felt that easy to do schoolwork at home, although slightly more than half (52.3%) had enough help from teachers. Children who exceeded screen time guidelines had higher rates of anxiety, depression, hyperactivity, and inattention. Almost half of [the children reported feeling more connected to their parents and siblings, and less connected to peers. Despite the challenges posed by the COVID-19 pandemic, two-thirds of the children reported medium or high levels of happiness and optimism. Up to 15% of children struggled with anxiety, and up to 9% struggled with depression. These findings suggest that strategic resource allocation may be warranted to ensure those most disrupted by the pandemic are prioritized. It is important to note that the information presented in this report is only a snapshot of how these children were doing during COVID-19. More information is needed to establish if the routines and mental health and behavioural patterns reported here were maintained throughout the COVID-19 pandemic and into a post-pandemic future.

Introduction

On January 25, 2020 Canada had its first presumptive case of the novel coronavirus, COVID-19, and by March 5, 2020, Alberta's first presumptive case of COVID-19 was reported in Calgary. By March 15, 2020, physical distancing and isolation orders were put in place by the Alberta Provincial Government to prevent the spread of COVID-19.

The COVID-19 pandemic is an unprecedented experience for families and communities worldwide. The psychological, economic, and social effects of the pandemic are pervasive. High quality, contemporary data on coping and recovery of families in Alberta during a global pandemic is crucial to inform further action and resource allocation for future waves of this pandemic, in periods of lockdown. This information can inform strategies for promoting family well-being and recovery after the pandemic. Two COVID-19 Impact Surveys were implemented approximately 3 months into the pandemic in 2020 -a maternal survey completed by mothers on their experiences at that time, and a middle-childhood survey that was completed by the children themselves. This report describes data collected from Albertan children in the All Our Families Cohort (AOF) on the COVID-19 Impact Survey implemented in July 2020 - August 2020.

Objectives

- Describe AOF child experiences of the pandemic within the first 3-4 months of the outbreak across the areas of mental health and well-being, screen time, school and daily life, and social connectedness.
- Describe associations among key predictor variables (e.g., family financial impact, screen time) and outcomes (e.g., child well-being, sleep, physical activity).

All Our Families Cohort

Children who were invited to participate in the child COVID-19 Impact Survey are the children of mothers who were part of a longitudinal cohort in Alberta called the AOF study (formerly the All Our Babies study). These women have been participating in this study since pregnancy, 8 to 12 years ago. Specifically, women were recruited into the AOF study between 2008 and 2011. Since then, information has been collected twice during pregnancy and at 4 months, 1 year, 2 years, 3 years, 5 years, and 8 years postpartum¹.

COVID-19 Impact Survey

Complete details of the survey development and data collection have been previously described². In brief, two COVID-19 surveys were developed: one for mothers and one for their children. The COVID-19 Impact Survey was sent to AOF mothers on May 20th and had until July 15th, 2020 to complete the survey. Following this, mothers were asked to consent for their child to participate in a child survey; with maternal consent, children were asked to assent to participate. Data collection for the child survey began in July 2020 and ended in August 2020.

Both the maternal and child surveys were developed based on existing COVID-19 surveys, previously used validated scales that had been used to survey these two longitudinal cohorts, and key content areas. Descriptions of the various components of the child COVID-19 Impact Survey

are included in Appendix B. A pilot study (n=30) was completed with mothers and children prior to launching the survey. The eligible cohort sample was composed of 1285 mothers from AOF who had completed the maternal COVID-19 Impact Survey. In total, 1021 mothers provided consent for their children to participate, and 895 children provided assent to participate in the COVID-19 Impact Survey.

Results

Descriptive statistics are presented below. Not all questions have a 100% response rate, so sample size varies slightly across groups with missing data ranging from (1.9% to 3.1%). Thus, sample size for some questions is presented as a range, to reflect the missing data from items within constructs.

Demographics

Table 1. *Child school demographic information (n=883-893)*

Child information	Proportion n (%)
Grade	
Grade 3	230 (25.9)
Grade 4	348 (39.2)
Grade 5	261 (29.4)
Grade 6	48 (5.4)
Homeschooled	
Yes	28 (3.2)
No	859 (96.8)
Gender	
Male	467 (52.9)
Female	413 (46.8)
Other	3 (0.3)
Age	
9 years	365 (40.9)
10 years	319 (35.7)
11 years	209 (23.4)

In this sample, about 95% of children are in grades three, four or five, with the other 5% in grades six. Before the pandemic, most children (96.8%) attended school, while 3.2% were homeschooled.

Table 2. Household demographic information (n=879-891)

Child information	Proportion n (%)
Pre-COVID Annual Household Income	
<\$40,000	37 (4.2)
\$40,000 - \$79,999	95 (10.8)
\$80,000 - \$174,999	469 (53.4)
>\$175,000	278 (31.6)
Mother Race/Ethnicity	
White	731 (82.0)
East/South Asian	105 (11.8)
Mixed/Other Race	55 (6.2)
Mother Education	
High school or less	51 (5.7)
At least some university/trade/college	697 (78.2)
At least some graduate school	143 (16.1)
Pandemic-Related Job Loss	
No change	331 (37.2)
One partner lost or reduced income	338 (37.9)
Both partners lost or reduced income	170 (19.1)
No partner	52 (5.8)

Children come from families where approximately 85% reported an annual household income of at least \$80,000. For context, the median family income of a dual income family with 2 children in Calgary in 2018 was \$129,700.00 (Statistics Canada). Since March 1st, 2020 about 57% of households had at least one partner experience negative financial impacts between March 1st and July 15th, 2020. Nearly 95% of mothers have at least some post-secondary education.

Activities

Table 3. *During COVID-19, how often did you do each of these activities? (n=890-892)*

Activity	Never n (%)	Monthly n (%)	Weekly n (%)	Daily n (%)
Play sports/exercise for fun	5 (0.6)	13 (1.5)	208 (23.3)	666 (74.7)
Spend time doing activities with family	4 (0.4)	17 (1.9)	225 (25.2)	646 (72.4)
Read for fun	51 (5.7)	76 (8.5)	257 (28.8)	508 (57.0)
Helping with household activities (e.g., gardening, baking, and cleaning)	15 (1.7)	40 (4.5)	338 (38.0)	498 (55.8)
Playing games (e.g., cards or board games; excluding video games)	17 (1.9)	119 (13.4)	433 (48.6)	322 (36.2)
Music	210 (23.5)	119 (13.3)	260 (29.2)	303 (34.0)
Building things (e.g., models, forts)	73 (8.2)	220 (24.7)	375 (42.1)	222 (24.9)
Exploring nature (e.g., hiking, collecting rocks or flowers)	42 (4.7)	184 (20.7)	455 (51.1)	210 (23.6)
Arts and crafts	77 (8.6)	187 (21.0)	431(48.3)	197 (22.1)
Creating plays, stories, acting	327 (36.7)	171 (19.2)	225 (25.3)	168 (18.9)
Learning a new hobby	232 (26.0)	395 (44.3)	213 (23.9)	51 (5.7)

Sorted by daily frequency (descending proportion)

Children were asked questions regarding the daily activities they engaged in during COVID-19 pandemic. Outdoor and physical activities were common. Approximately three quarters of children reported engaging in physical activity such as ‘playing sports and/or exercising for fun’ daily (74.7%). Outdoor activities such as exploring nature (e.g., hiking, collecting rocks or flowers) were engaged in less frequently with half of children engaging weekly (51.1%) and about one quarter engaging daily (23.6%).

Activities with family and households were reported often by children during the pandemic. Activities with family were reported daily by 72.4% of children and an additional 25.2% reporting weekly. Similarly, though slightly less frequent, about half of children report helping with household activities daily (55.8%) and 38% reporting at least weekly.

Play activities were reported with some frequency depending on the activity but generally in lower proportions than physical activities and household related activities. Reading for fun was reported daily by more than half of children (57%). Additionally, about half of children reported playing games (excluding video games) on a weekly basis (48.6%) and another third reported

playing games daily (36.2%). Arts and crafts, and building things (e.g., models, forts) were reported slightly less frequently with 48.3% and 42.1% reporting weekly activity, respectively. Less engaged in activities were creating plays, stories, acting (36.7% reporting never). As well, learning a new hobby had low frequency reported with 26% reporting never, but this also indicates that 74% are in the process of learning a new hobby. Although 23.5% report never engaging in music, about one third also engage in music daily (34%).

Recreational Screen Time

Table 4. *Self-reported recreational screen time (hours per day) by weekday and weekend screen time (n=883-884)*

	≤1 hour n (%)	2 hours n (%)	3 hours n (%)	4 hours n (%)	5 hours n (%)	6 hours n (%)	≥7 hours n (%)
Weekday Screen Time	131 (14.8)	205 (23.2)	187 (21.2)	140 (15.9)	92 (10.4)	42 (4.8)	86 (9.7)
Weekend Screen Time	113 (12.8)	193 (21.9)	187 (21.2)	154 (17.5)	90 (10.2)	52 (5.9)	93 (10.5)

Children were asked how often they use electronic devices for fun (e.g., smartphone, tablet, computer, video game system, TV) on a typical week and weekend day. Over half of the children reported that they use electronic devices 3 hours or less per day. With a smaller position of children reporting higher levels (4+ hours) of daily screen use. Reported levels of week and weekend screen use was similar.

Table 5. *Children’s feelings about parent/caregiver digital device use during COVID-19 (n=881-883)*

	Never n (%)	Sometimes n (%)	Often n (%)	Almost always n (%)
I wish my parent or caregiver would spend less time on their phones and other devices	294 (33.3)	442 (50.1)	86 (9.7)	61 (6.9)
I get frustrated with my parent or caregiver for being on their phone or other device so much when we're spending time together	437 (49.6)	340 (38.6)	66 (7.5)	38 (4.3)

Children were asked about caregiver digital device use during the COVID-19 pandemic. About half (50.1%) of children reported that they sometimes wish their caregiver would spend less time on their phones and other devices while 38.6% reported sometimes being frustrated by caregiver device use while spending time together. Another 16.6% ‘often’ or ‘almost always’ wished their caregiver would spend less time on their phone or device and 11.8% felt frustrated ‘often’ or ‘almost always’ by caregiver device use while spending time together.

Sleep Habits

Table 6. *Digital device sleep hygiene during COVID-19 (n=889)*

	Never n (%)	Some Nights n (%)	Every Night n (%)
How often have you used digital devices in the hour before you went to bed?	176 (19.4)	494 (55.6)	219 (24.6)
How often have you slept with a digital device?	570 (64.1)	140 (15.7)	179 (20.1)
How often are you woken up by your digital device during the night (such as a text or notification)?	294 (91.9)*	23 (7.2)*	3 (0.9)*

* only applies to those who indicated they slept with digital device some or every night (n=320)

The Canadian Pediatric Society encourages reduced screen use before bed and discourages digital devices in the bedroom³. In this sample, in the hour before bed nearly one quarter (24.6%) of children reported using a digital device every night while an additional 55.6% reported using a digital device some nights. Despite this, nearly two-thirds (64.1%) report never sleeping with a digital device in their room and of those who do sleep with a digital device, 91.9% report never having their sleep interrupted by the device.

Table 7. *Sleep duration during COVID-19 (n=891)*

	<7 hours n (%)	7 hours n (%)	7.5 hours n (%)	8 hours n (%)	8.5 hours n (%)	9 hours n (%)	9.5 hours n (%)	≥10 hours n (%)
About how long do you sleep on a typical night?	23 (2.6)	22 (2.5)	17 (1.9)	64 (7.2)	79 (8.9)	162 (18.2)	168 (18.9)	356 (40.0)

Children were asked about sleep duration during the COVID-19 pandemic. Forty percent of children reported sleeping ten or more hours. In total, 77.1% reported sleeping nine or more hours; thus, approximately 23% of children fail to achieve national sleep guidelines⁴ for children 5-13 years of age on a typical night. Only 7% reported sleeping less than eight hours.

Physical Activity

Table 8. *Physical activity during COVID-19 (n=889)*

	0 days n (%)	1 day n (%)	2 days n (%)	3 days n (%)	4 days n (%)	5 days n (%)	6 days n (%)	7 days* n (%)
How many of the last 7 days did you exercise, play a sport, or participate in physical activity that made your heart rate go up for at least 60 minutes?	18 (2.0)	36 (4.0)	42 (4.7)	89 (10.0)	101 (11.4)	134 (15.1)	96 (10.8)	373 (42.0)

* 60 minutes per day 7 days per week is the recommended amount for this approximate age group.

Children were asked about their physical activity engagement in the week prior to completing the survey. Although 79.3% of children reported at least 60 minutes of physical activity in at least four days the last week, less than half of all children (42%) reported meeting the daily physical activity guidelines of at least 60 minutes every day⁵.

Social Connectedness

Table 9. *Feelings of connectedness with family and friends during COVID-19 (n=881-888)*

How connected do you feel to your...	Less connected n (%)	About as connected as usual n (%)	More connected n (%)
Parents right now?	40 (4.5)	452 (50.9)	392 (44.1)
Brothers and/or sisters right now?	60 (6.8)	373 (42.1)	360 (40.6)
Other family members like grandparents or cousins right now?	331 (37.3)	367 (41.3)	174 (19.6)
Friends outside of school right now	380 (42.8)	290 (32.7)	157 (17.7)
School friends right now?	677 (76.2)	136 (15.3)	60 (6.8)

Sorted by more connected (descending proportion)

Of note, percentages per item may not add up to 100% since not applicable was also an option (not shown)

Children were asked about their feelings of connectedness to family and friends during the COVID-19 pandemic. About half of children report feeling as connected to their parents as usual (50.9%) while 44.1% feel that they are more connected than usual. A similar trend for those who had siblings was observed where 47% felt as connected and 45.4% felt more connected (note that these percentages exclude only children from denominator). For extended family such as grandparents and cousins, more than one third of children felt less connected (37.3%) and only 19.6% felt more connected.

Connection to school friends seemed to be the most negatively affected by the pandemic with 76.2% reporting that they felt less connected than usual. Connection with friends outside school was perhaps less affected with 42.8% of children reporting less connection to friends outside of school and 17.7% reporting that they felt more connected.

Table 10. *Self-reported feelings of connectedness to caregivers during COVID-19 (n=886)*

	Low n (%)	Medium n (%)	High n (%)
Connection with adults at home	310 (35.0)	197 (22.2)	379 (42.8)

Using the Middle Years Development Inventory⁶, 35% of children reported low levels of connectedness to caregivers and 42.8% reported high levels of connectedness.

Well-Being

Table 11. *Self-reported happiness and optimism during COVID-19 (n=883)*

	Low n (%)	Medium n (%)	High n (%)
Optimism	344 (39.0)	112 (12.7)	427 (48.4)
Happiness	317 (35.9)	169 (19.1)	397 (45.0)

Thirty-nine percent indicated low optimism while 48.4% indicated high optimism; similarly, 35.9% indicated low happiness and 45% indicated high happiness. Both happiness and optimism are scored using the Middle Years Development Instrument. Optimism refers to the mindset of having positive expectations for the future and happiness, or subjective well-being, refers to how content or satisfied children are with their lives.

Table 12. *Self-reported child mental health and behaviour during COVID-19 (n=883-884)*

Mental Health and Behaviour	Low (31-40) n (%)	Average (41-50) n (%)	At-Risk (60-69) n (%)	Clinically Significant (70+) n (%)
Anxiety	223 (25.3)	538 (60.9)	81 (9.2)	41 (4.6)
Depression	88 (10.0)	723 (81.9)	44 (5.0)	28 (3.2)
Hyperactivity	217 (24.6)	580 (65.6)	72 (8.1)	15 (1.7)
Inattention	202 (22.9)	587 (66.5)	86 (9.7)	8 (0.9)
Inattention-Hyperactivity Composite	244 (27.6)	556 (63.0)	71 (8.0)	12 (1.4)

Child mood symptoms and behaviours were scored using child self-report responses to several questions from the *Behaviour Assessment System for Children, Second Edition (BASC-2)*(6). Approximately 14% of children were in the at-risk or clinically significant category for anxiety symptoms. Between 8.2% and 10.6% of children scored in the at-risk or clinically significant category for symptoms of depression, hyperactivity, or inattention.

Schoolwork

Table 13. *What are some of the things that you missed about school when schools closed during COVID-19? (n=859)*

Aspects of school missed	Not Selected n (%)	Selected n (%)
Seeing friends at school	54 (6.3)	805 (93.7)
Seeing your teacher	233 (27.1)	626 (72.9)
Participating in special events at school (outings, assemblies, etc.)	304 (35.4)	555 (64.6)
Having recess	353 (41.1)	506 (58.9)
Getting out of the house	363 (42.3)	496 (57.7)
Learning in a classroom	375 (43.7)	484 (56.3)
Getting in-person instructions from your teacher	412 (48.0)	447 (52.0)
Participating in clubs or sports at school	428 (49.8)	431 (50.2)
Having a daily routine	470 (54.7)	389 (45.3)
Seeing other adults at school (principal, librarian, counsellor, etc.)	471 (54.8)	388 (45.2)

Note: only applies to children who indicated they are not homeschooled
Sorted by most frequently selected (descending proportion selected)

The children who attended school outside the home prior to the pandemic were asked a series of questions about what aspects of school they missed the most. Seeing friends (93.7%), seeing the teacher (72.9%), and participating in special events at school (64.6%) were the most frequently missed aspects of school. Although less frequently missed, just over half of children (between 50% and 59%) reported missing recess, getting out of the house, learning in a classroom, getting in-person instructions from the teacher, and participating in clubs or sports. Although seeing other adults at school (i.e., librarians, principals), and having a daily routine had the lowest proportions, both had about 45% of children missing them.

Table 14. *What are some of the things that you have liked about doing schoolwork from home during COVID-19? (n=859)*

Aspects children like about doing schoolwork from home	Not Selected n (%)	Selected n (%)
Having more free time to do what I want	177 (20.6)	682 (79.4)
Having more time with family	258 (30.0)	601 (70.0)
Sleeping in	278 (32.4)	581 (67.6)
Being able to work at my own pace	282 (32.8)	577 (67.2)
Having a flexible schedule	359 (41.8)	500 (58.2)
Having less homework	424 (49.4)	435 (50.6)
Not having to deal with "drama" with people at school	471 (54.8)	388 (45.2)
Doing schoolwork on a computer or tablet	478 (55.6)	381 (44.4)
Doing schoolwork with my parents	509 (59.3)	350 (40.7)

Note: only applies to children who indicated they are not homeschooled
Sorted by most frequently selected (descending proportion selected)

Children who had been attending schools outside the home before COVID-19 were then asked what they liked about doing schoolwork from home during the pandemic. Having free time (79.4%), having more time with family (70%), sleeping in (67.6%), and working ‘at my own pace’ (67.2%) were things children liked most about doing schoolwork from home. As well, just over half of children reported liking having a flexible schedule (58.2%) and having less homework (50.6%). The least frequently liked aspects of doing schoolwork at home were doing schoolwork with my parents (40.7%), doing schoolwork on a computer or tablet (44.4%), and not having to deal with "drama" with people at school (45.2%).

Table 15. *At-home schoolwork environment during COVID-19 (n=885-886)*

Tell us how much you agree with the following:	Never n (%)	A little bit n (%)	Sometimes n (%)	Almost Always n (%)	Always n (%)
It was easy for me to do my schoolwork at home	61 (6.9)	139 (15.7)	272 (30.7)	278 (31.4)	136 (15.3)
I had enough help from my teachers for schoolwork	61 (6.9)	164 (18.5)	198 (22.3)	255 (28.8)	208 (23.5)
I had enough help from my parents for schoolwork	10 (1.1)	40 (4.5)	119 (13.4)	264 (29.8)	452 (51.1)

Children who were schooled outside home before COVID-19 were asked about the support they received and ability to complete schoolwork while doing schoolwork at home during COVID-19. Less than half (46.7%) felt that it was ‘almost always’ or ‘always’ easy to do schoolwork at home and slightly more than half (52.3%) ‘almost always’ or ‘always’ had enough help from teachers. Half of children (51.1%) felt that they ‘always’ had enough help from parents and 29.8% felt they ‘almost always’ had enough help from parents.

Table 16. *Computer use for homework during COVID-19 (n=883)*

	Never n (%)	Less than once a month n (%)	At least once a month n (%)	At least once a week n (%)	Every day n (%)
Use a computer for homework	113 (12.8)	44 (5.0)	54 (6.1)	194 (22.0)	478 (54.1)

Table 17. *Computer use for homework during COVID-19, by grade of child (n=883)*

Computer Use:	Grade 3 n (%)	Grade 4 n (%)	Grade 5 n (%)	Grade 6 n (%)
Never	32 (14.0)	46 (13.3)	31 (11.9)	4 (8.3)
Less than once a month	8 (3.5)	23 (6.6)	11 (4.2)	2 (4.2)
At least once a month	14 (6.1)	18 (5.2)	17 (6.5)	5 (10.4)
At least once a week	49 (21.5)	75 (21.6)	56 (21.5)	14 (29.2)
Every day	125 (54.8)	185 (53.3)	145 (55.8)	23 (47.9)

Approximately half (54.1%) of children reported using a computer everyday and 22% reported using a computer at least once a week for homework. Additionally, 12.8% indicated that they never used a computer for homework.

Associations

Child Demographics and Well-Being

Table 18. *Child Gender and Age Child Mental Health, Behaviour, and Well-Being (n=882)*

	Female	Male	9 Years	10 Years	11 Years
Anxiety symptoms					
Average/Low	349 (84.7)	410 (87.8)	317 (88.1)	265 (84.4)	179 (85.7)
At-Risk/Clinically Significant	63 (15.3)	57 (12.2)	43 (11.9)	49 (15.6)	30 (14.3)
Depressive symptoms					
Average/Low	382 (92.7)	427 (91.4)	334 (92.8)	290 (92.4)	187 (89.5)
At-Risk/Clinically Significant	30 (7.3)	40 (8.6)	26 (7.2)	24 (7.6)	22 (10.5)
Hyperactivity symptoms					
Average/Low	380 (92.2)	413 (88.4)	325 (90.3)	274 (87.0)	198 (94.7)
At-Risk/Clinically Significant	32 (7.8)	54 (11.6)	35 (9.7)	41 (13.0)	11 (5.3)
Inattention symptoms					
Average/Low	389 (94.4)	396 (84.8)	326 (90.6)	274 (87.3)	189 (90.4)
At-Risk/Clinically Significant	23 (5.6)	71 (15.2)	34 (9.4)	40 (12.7)	20 (9.6)
Happiness					
Low	141 (34.1)	173 (37.0)	106 (29.5)	130 (41.3)	81 (38.8)
Medium	83 (20.1)	86 (18.4)	80 (22.3)	51 (16.2)	38 (18.2)
High	189 (45.8)	208 (44.5)	173 (48.2)	134 (42.5)	90 (43.1)
Optimism					
Low	156 (37.8)	187 (40.0)	127 (35.4)	128 (40.6)	89 (42.6)
Medium	55 (13.3)	56 (12.0)	54 (15.0)	38 (12.1)	20 (9.6)
High	202 (48.9)	224 (48.0)	178 (49.6)	149 (47.3)	100 (47.9)

As is consistent with symptoms reported for this age range prior to COVID-19, males appear to have higher levels of self-reported symptoms of hyperactivity and inattention when compared to females. A few children identified their gender as non-binary. However, these data are not presented as cell size was less than five.

Household and Parent Factors

Table 19. Household Financial Impact and Child Mental Health, Behaviour, and Well-Being (n=850)

	No Household Financial Impact	At least one parent impacted negatively
Anxiety Symptoms		
Average/Low	287 (88.0)	446 (85.1)
At-Risk/Clinically Significant	39 (12.0)	78 (14.9)
Depressive Symptoms		
Average/Low	302 (92.6)	479 (91.4)
At-Risk/Clinically Significant	24 (7.4)	45 (8.6)
Hyperactivity Symptoms		
Average/Low	297 (90.8)	469(89.5)
At-Risk/Clinically Significant	30 (9.2)	55 (10.5)
Inattention Symptoms		
Average/Low	296 (90.8)	462 (88.2)
At-Risk/Clinically Significant	30 (9.2)	62 (11.8)
Happiness		
Low	113 (34.7)	191 (36.5)
Medium	73 (22.4)	89 (17.0)
High	140 (42.9)	244 (46.6)
Optimism		
Low	126 (38.7)	206 (39.3)
Medium	46 (14.1)	59 (11.3)
High	154 (47.2)	259 (49.4)

Children from families that had at least one parent impacted financially (lost job or reduced hours) during the COVID-19 pandemic were compared with those families who were not impacted financially. About 57% of children had at least one parent with a negative impact on their employment during the first 5 months of lockdown. Child well-being was generally similar between the two groups, although there are slightly higher proportions (~1-2%) in the group that was impacted financially negatively.

Table 20. Maternal Resilience and Child Mental Health, Behaviour, and Well-Being (n=876)

	Low Resilience	Medium or High Resilience
Anxiety Symptoms		
Average/Low	192 (85.3)	564 (86.6)
At-Risk/Clinically Significant	33 (14.7)	87 (13.4)
Depressive Symptoms		
Average/Low	207 (92.0)	598 (91.9)
At-Risk/Clinically Significant	18 (8.0)	53 (8.1)
Hyperactivity Symptoms		
Average/Low	210 (92.9)	582 (89.4)
At-Risk/Clinically Significant	16 (7.1)	69 (10.6)
Inattention Symptoms		
Average/Low	200 (88.9)	583 (89.6)
At-Risk/Clinically Significant	25 (11.1)	68 (10.5)
Happiness		
Low	88 (39.3)	227 (34.8)
Medium	38 (17.0)	128 (19.6)
High	98 (43.8)	297 (45.6)
Optimism		
Low	92 (41.1)	249 (38.2)
Medium	25 (11.2)	87 (13.3)
High	107 (47.8)	316 (48.5)

Mother's resilience (low vs. medium/high) was compared for child mental health symptoms, behaviour, and well-being. The proportions were generally similar.

Sleep, Screen Time, Physical Activity, Mental Health, Behaviour, and Well-Being

Table 21. Comparison of Children who Achieve and Do Not Achieve Sleep Recommendations (n=882-889)

	Sleeps less than 9 hours per night	Sleeps 9 or more hours
Screen Use Before Bed		
Never uses digital device before bed	30 (14.6)	146 (21.4)
Uses digital device some or all nights before bed	175 (85.4)	538 (78.6)
Recreational Screen Use (average per day)		
≤ 1 hour	10 (4.9)	53 (7.8)
>1 hour & ≤ 2 hours	32 (15.8)	160 (23.6)
>2 hour & ≤ 3 hours	38 (18.7)	164 (24.2)
>3 hour & ≤ 4 hours	45 (22.2)	109 (16.1)
>4 hour & ≤ 5 hours	34 (16.8)	88 (13.0)
>5 hour & ≤ 6 hours	18 (8.9)	47 (6.9)
> 6 hours	26 (12.8)	58 (8.5)
Meets Physical Activity Guidelines		
Yes	82 (40.2)	291 (42.5)
No	122 (59.8)	394 (57.5)
Anxiety Symptoms		
Average/Low	156 (77.2)	605 (88.8)
At-Risk/Clinically Significant	46 (22.8)	76 (11.2)
Depression Symptoms		
Average/Low	176 (87.1)	635 (93.3)
At-Risk/Clinically Significant	26 (12.9)	46 (6.8)
Hyperactivity Symptoms		
Average/Low	183 (90.2)	614 (90.2)
At-Risk/Clinically Significant	80 (9.8)	67 (9.8)
Inattention Symptoms		
Average/Low	176 (87.1)	613 (90.0)
At-Risk/Clinically Significant	26 (12.9)	68 (10.0)
Happiness		
Low	89 (43.8)	228 (33.5)
Medium	45 (22.2)	124 (18.2)
High	69 (34.0)	328 (48.2)
Optimism		
Low	99 (48.8)	245 (36.0)
Medium	27 (13.3)	85 (12.5)
High	77 (37.9)	350 (51.5)

Sleep guidelines recommend 9 to 11 hours of uninterrupted sleep per day for this approximate age group and no more than two hours of recreation screen use (4). Of the 203 who do not meet sleep guidelines only 20.7% report screen use below two hours. Conversely, of the 679 children

who do meet sleep guidelines, 31.4% report screen use below two hours. Still, the majority of children (71.1%) report exceeding two hours of screen time per day. About 85% of children who do not meet sleep guidelines use a digital device some nights or every night before bed while 79% of those who do meet sleep guidelines use a digital device some nights or every night.

Table 22. *Child Reported Screen Time and Child Mental Health, Behaviour, and Well-Being (BASC-2) (n=881)*

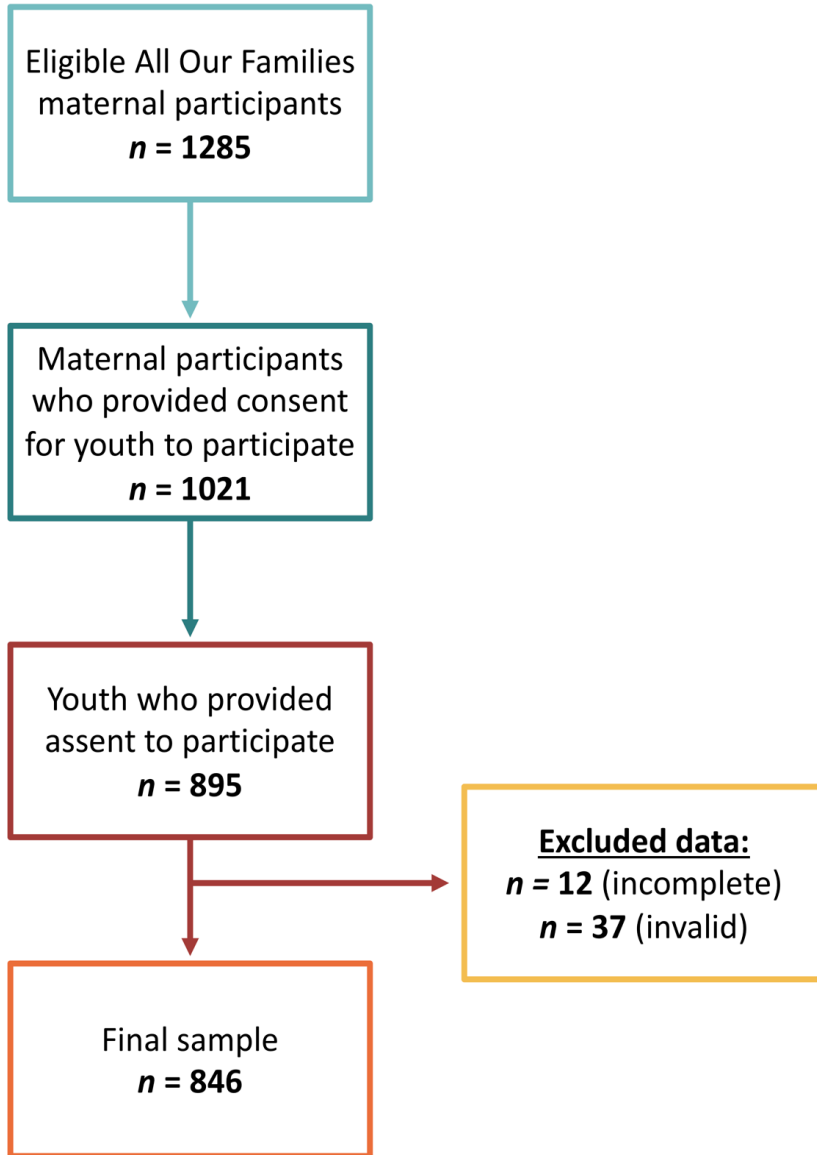
		Screen Time 2 hours or less (average per day)	Screen Time more than 2 hours (average per day)
Anxiety			
	Average/Low	235 (92.2)	524 (83.7)
	At-Risk/Clinically Significant	20 (7.8)	102 (16.3)
Depression			
	Average/Low	240 (94.1)	569 (90.9)
	At-Risk/Clinically Significant	15 (5.9)	57 (9.1)
Hyperactivity			
	Average/Low	238 (93.3)	557 (89.0)
	At-Risk/Clinically Significant	17 (6.7)	69 (11.0)
Inattention			
	Average/Low	243 (95.3)	545 (87.1)
	At-Risk/Clinically Significant	12 (4.7)	81 (12.9)
Happiness			
	Low	72 (28.3)	244 (38.9)
	Medium	46 (18.0)	123 (19.6)
	High	137 (53.7)	260 (41.5)
Optimism			
	Low	84 (32.9)	259 (41.3)
	Medium	31 (12.2)	81 (12.9)
	High	140 (54.9)	287 (45.8)

The data suggest that children who exceed screen time guidelines have higher proportions of anxiety, depression, hyperactivity, and inattention. As well, the children who did not exceed screen time guidelines made up a higher proportion of those in the highest tertiles of optimism and happiness.

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4. Tremblay, M.S. et al. Canadian 24-Hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep. *Applied Physiology, Nutrition, and Metabolism*, 2016, *41*(6 (Suppl. 3)): S311-S327, <https://doi.org/10.1139/apnm-2016-0151>
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Appendix A: Flow Chart of Study Sample



Appendix B: Questions, Standardized Scales and Scoring

Daily Activities

Location: Section 1: My Day-to-Day Life; Question 1

Concept: Constructive use of time

Items: 11

Description: This self-developed question intends to assess the average time children spent engaging in constructive activities during COVID-19.

Scoring Information: No scoring information provided. Higher scores on this scale indicate greater time spent engaged in the specified activity.

- Never = 0
- At least once a month = 1
- At least once a week = 2
- Many times a week = 3
- At least once a day = 4
- Many times a day = 5

Variable Names:

yev1_act1	yev1_act5	yev1_act9
yev1_act2	yev1_act6	yev1_act10
yev1_act3	yev1_act7	yev1_act11
yev1_act4	yev1_act8	

1. During COVID-19, how often did you do each of the following activities?						
	Many times a day	At least once a day	Many times a week	At least once a week	At least once a month	Never
1. Read for fun 2. Arts and crafts 3. Music (e.g., singing, playing an instrument) 4. Play sports and/or exercise for fun (e.g., riding your bike, dancing) 5. Spend time doing activities with your family 6. Creating plays, stories, acting 7. Learning a new hobby 8. Building things (e.g., models, forts) 9. Helping with household activities (e.g., gardening, baking, and cleaning) 10. Playing games (e.g., cards or board games; excluding video games) 11. Exploring nature (e.g., hiking, collecting rocks or flowers)						

Sleep Duration

Location: Section 1: My Day-to-Day Life; Question 2

Concept: Sleep duration

Items: 1

Description: This self-developed question intends to assess the average sleep duration children experienced during COVID-19.

Scoring Information: No scoring information provided. Higher scores on this scale indicate greater sleep duration.

- Less than 7 hours = 1
- 7 hours = 2
- 7 and a half hours = 3
- 8 hours = 4
- 8 and a half hours = 5
- 9 hours = 6
- 9 and a half hours = 7
- 10 hours or more = 8

Variable Names:

yvc1_slp1

2. During COVID-19, about how long do you sleep on typical <u>night</u>? Please do not include hours spent awake in bed. I typically sleep...							
Less than 7 hours	7 hours	7 and a half hours	8 hours	8 and a half hours	9 hours	9 and a half hours	10 hours or more

Common Sense Media - Sleep Habits

Location: Section 1: My Day-to-Day Life; Question 3

Concept: Technological interference with sleep

Items: 3

Description: Three questions were adapted from one item in the Common Sense Media report, *Social media, social life*. The survey questions were part of an ongoing study tracking social media use among American teenagers, aged 13- to 17-years. The original survey questions were developed by the study investigators.

Important Note: The original item, “How often, if ever, are you woken up by your phone during the night (such as by a call, text, or notification)?” was adapted to “How often are you woken up by your digital device during the night (such as a text or notification)?” The other items were developed by the AOF team. Responses to the original question (every night, most nights, some nights, hardly ever, never) were adapted to: “every night”, “some nights”, or “never.”

Scoring Information: No scoring information provided. Higher scores indicate greater sleep interference.

- Never = 0
- Some nights = 1
- Every night = 2

Variable Names:

ycv1_slp2

ycv1_slp3

ycv1_slp4

References:

Rideout, V., & Robb, M.B. (2018). *Social media, social life: Teens reveal their experiences*. San Francisco, CA: Common Sense Media.

3. Thinking about your sleep habits during COVID-19,			
	Every night	Some nights	Never
1. How often have you used digital devices in the hour before you went to bed?			
2. How often have you slept with a digital device (e.g., smartphone, tablet, eBook reader, computer, video game system, TV) in your room?			
ONLY DISPLAYED IF 2 DOES NOT EQUAL NEVER			
3. How often are you woken up by your digital device during the night (such as a text or notification)?			

Physical Activity

Location: Section 1: My Day-to-Day Life; Question 4

Concept: Physical activity

Items: 1

Description: This question was adapted from previous studies, which queried the extent to which children were adhering to Physical Activity guidelines for Canadian students: at least 60 minutes of moderate-to-vigorous physical activity per day.

Important Note: A prior study asked participants how many of the last 7 days were they physically active for at least 60 minutes each day. This question was adapted to include “exercise” and “play a sport” in addition to physical activity. In addition, “that made your heart rate go up” was added to encompass the guideline of moderate-to-vigorous activity. An example was added to the question.

Scoring Information: In the original study, students were categorized as meeting or not meeting the recommendation.

Scoring:

- Higher levels indicate greater number of days meeting physical activity recommendation of 60min/day
- Also scored as meeting PA guidelines (yes/no)
 - 0-6 days should be recoded as 0 = not meeting guideline
 - 7 days should be recoded as 1 = meeting guideline

Variable Names:

y cv1_pa1

y cv1_pa2

References:

Lien, A., Sampasa-Kanyinga, H., Colman, I., Hamilton, H.A., & Chaput, J.P. (2020). Adherence to 24-hour movement guidelines and academic performance in adolescents. *Public Health, 183*, 8-14. <https://doi.org/10.1016/j.puhe.2020.03.011>

Sampasa-Kanyinga, H., Colman, I., Hamilton, H.A., & Chaput, J.-P. (2019). Outdoor physical activity, compliance with the physical activity, screen time, and sleep duration recommendations, and excess weight among adolescents. *Obesity Science & Practice, 6*(2), 196-206. <https://doi.org/10.1002/osp4.389>

<p>4. How many of the last 7 days did you exercise, play a sport, or participate in physical activity that made your heart rate go up for <u>at least 60 minutes</u>? Examples include walking, running, or dancing. Please add up all the time spent on any physical activity in a given day. For example, if you played soccer in the morning for 30 minutes and went for a bike ride in the afternoon for 30 minutes all on the same day you would have exercised for 60 minutes that day.</p>							
0 days	1 day	2 days	3 days	4 days	5 days	6 days	7 days

Common Sense Media - Connectedness

Location: Section 2: Connections; Question 5

Concept: connectedness

Items: 5

Description: Five questions were adapted from two items in the Common Sense Media report, *Common Sense Media | SurveyMonkey Poll: How Teens Are Coping and Connecting in the Time of the Coronavirus*. The survey questions were part of a brief survey assessing media use and general functioning for American teenagers, aged 13- to 17-years, during COVID-19 (March 24 - April 1, 2020). The original survey questions were developed by the study investigators.

Important Note: The original two items asked about connection to friends and parents. The item asking about “friends” was divided into “school friends” and “friends outside of school”. Questions about siblings and other family members were added.

Scoring Information: No scoring information provided. Higher scores indicate greater connection. Participants scoring “0” should be excluded if examining as a continuous measure.

Scoring:

- Does not Apply to me= 0
- Less connected than usual = 1
- About as connected as usual = 2
- More connected than usual = 3

Variable Names:

ycv1_rel1

ycv1_rel2

ycv1_rel3

ycv1_rel4

ycv1_rel5

References:

Common Sense Media. (2020). *Common Sense Media | SurveyMonkey Poll: How Teens Are Coping and Connecting in the Time of the Coronavirus*. San Francisco, CA: Common Sense Media.

https://www.common sense media.org/sites/default/files/uploads/pdfs/2020_survey monkey-key-findings-toplines-teens-and-coronavirus.pdf

5. This section is about your relationships since COVID-19.				
	More connected than usual	About as connected as usual	Less connected than usual	Does not apply to me
1.	How connected do you feel to your parents right now?			
2.	How connected do you feel to your brothers and/or sisters right now?			
3.	How connected do you feel to your other family members like grandparents or cousins right now?			
4.	How connected do you feel to your school friends right now?			
5.	How connected do you feel to your friends outside of school right now?			

Middle Years Development Instrument (MDI) – Connections with Adults at Home

Location: Section 2: Connections; Question 6

Concept: Connectedness with adults in the home

Items: 3

Description: These three questions were taken from the Adults at Home subscale, “In my home there is a parent or another adult who...” from the *Connections* dimension on the Middle Years Development Instrument (MDI) to assess children’s perceived connections with family and friends during COVID-19. The MDI indicates a theoretically predicted factor structure, high internal consistency, and convergent and divergent validity for five dimensions of child wellbeing in middle childhood: social and emotional development, connectedness to peers and to adults at school, at home, and in the neighborhood, school experiences, physical health and wellbeing, and constructive use of after-school time.

Scoring Information: Recode the responses as follows. High corresponds to high perceived connectedness, medium corresponds to medium perceived connectedness, and low corresponds to low perceived connectedness. AOF summed responses and used tertiles as cutoffs.

Scoring:

- High = Children whose average responses were “very much true” and “pretty much true”
- Medium = Children whose average responses were “a little true,” or who reported a mix of positive and negative responses.
- Low = Children whose average responses were “not at all true”

Variable Names:

ycv1_wb1

ycv1_wb2

ycv1_wb3

References:

MDI Technical Guide (April 2020). http://www.discovermdi.ca/wp-content/uploads/2020/04/MDI-Technical_Guide-v1-202004.pdf

Schonert-Reichl, K.A., Guhn, M., Gadermann, A.M., Hymel, S., Sweiss, L., & Hertzman, C. (2013). Development and validation of the Middle Years Development Instrument (MDI): Assessing children’s well-being and assets across multiple contexts. *Social Indicators Research, 114*, 345-369. <https://doi.org/10.1007/s11205-012-0149-y>

6. In my home, there is a parent or another adult...				
	Not at all true	A little true	Pretty much true	Very much true
1.	Who believes that I will be a success.			
2.	Who listens to me when I have something to say.			
3.	Who I can talk to about my problems.			

Grade

Location: Section 3: School; Question 7

Concept: grade

Items: 1

Description: This self-developed item assessed the grade level children were in as of June 1, 2020.

Scoring Information: Scoring corresponds to the reported grade level.

- Grade 3 = 1
- Grade 4 = 2
- Grade 5 = 3
- Grade 6 = 4
- Grade 7 = 5
- Grade 8 = 6

Variable Names:

yev1_edu1

7. What grade of school were you in on June 1, 2020?					
Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8

School Type

Location: Section 3: School; Question 8

Concept: homeschooling

Items: 1

Description: This self-developed question was used to assess whether children completed their schooling at home (i.e., homeschooling) or in a school before COVID-19.

Scoring Information:

- School = 1
- Homeschool = 0

Variable Names:

ycv1_edu2

8. Please choose which option best describes you:	
Before COVID-19, I went to school outside my home	Before COVID-19, I did all my schoolwork at home (homeschooling)

School Activities Missed

Location: Section 3: School; Question 9

Concept: missed school activities

Items: 10

Description: This self-developed question was used to assess activities children may have missed during COVID-19 if they had previously attended school outside of their home.

Scoring Information:

- Not selected = 0
- Selected = 1

Variable Names:

yev1_edu3a

yev1_edu3b

yev1_edu3c

yev1_edu3d

yev1_edu3e

yev1_edu3f

yev1_edu3g

yev1_edu3h

yev1_edu3i

yev1_edu3j

SKIPPED IF HOME-SCHOOLING		
9. What are some of the things that you missed about school when schools closed during COVID-19?		
	Selected (Yes)	Not Selected (No)
1. Learning in a classroom		
2. Seeing friends at school		
3. Having recess		
4. Getting in-person instructions from your teacher		
5. Seeing your teacher		
6. Seeing other adults at school (principal, librarian, counsellor, etc.)		
7. Having a daily routine		
8. Participating in special events at school (outings, assemblies, etc.)		
9. Participating in clubs or sports at school		
10. Getting out of the house		

School Activities Enjoyed

Location: Section 3: School; Question 10

Concept: enjoyed home school activities

Items: 9

Description: This self-developed question was used to assess activities children may have enjoyed during COVID-19, after transitioning to completing school activities at home.

Scoring Information:

- Not selected = 0
- Selected = 1

Variable Names:

yev1_edu4a

yev1_edu4b

yev1_edu4c

yev1_edu4d

yev1_edu4e

yev1_edu4f

yev1_edu4g

yev1_edu4h

yev1_edu4i

10. What are some of the things you have liked about doing schoolwork from home during COVID-19?		
	Selected (Yes)	Not Selected (No)
1. Having more free time to do what I want		
2. Having a flexible schedule		
3. Being able to work at my own pace		
4. Doing schoolwork with my parents		
5. Doing schoolwork on a computer or tablet		
6. Sleeping in		
7. Not having to deal with “drama” with people at school		
8. Having more time with family		
9. Having less homework		

Homeschool Difficulty

Location: Section 3: School; Question 11

Concept: school difficulty

Items: 3

Description: These self-developed items were used to assess the extent to which children struggled with completing schoolwork from home during COVID-19.

Scoring Information: Lower scores correspond with greater school difficulty.

- Never = 1
- A little bit = 2
- Sometimes = 3
- Almost always = 4
- Always = 5

Variable Names:

yev1_edu5a

yev1_edu5b

yev1_edu5c

11. Tell us how much you agree with the following					
	Never	A little bit	Sometimes	Almost always	Always
1.	It was easy for me to do my schoolwork at home during COVID-19				
2.	I had enough help from my teachers for schoolwork during COVID-19				
3.	I had enough help from my parents for schoolwork during COVID-19				

School Experience COVID-19

Location: Section 3: School; Question 12

Concept: qualitative school

Items: 1

Description: This self-developed item sought qualitative information regarding children's experiences with school closures due to COVID-19.

Variable Names:

yev1_edu6

12. Is there anything else you'd like to tell us about schools closing during COVID-19?
Text response

Behavior Assessment System for Children – Third Edition, Self-Report of Personality – Child (SRP-C) – Anxiety, Attention Problems, Depression, Hyperactivity

Location: Section 4: My Feelings; Question 13

Concept: behavior, anxiety, depression, attention, hyperactivity

Items: 38

Description: There are 12 forms of the BASC-3 available to be assessed on individuals aged 2-25 years according to parent-, teacher-, and self-ratings. The Behavior Assessment System for Children – Third Edition, Self-Report of Personality – Child (SRP-C) aged 8 to 11 years is a self-report of positive and negative personality traits, thoughts, attitudes, and feelings reflecting insight into a child's thoughts and feelings. The BASC-3-SRP-C yields 5 composite scales, 14 clinical and adaptive scales, and 1 clinical index. Internal consistency produced Cronbach's alphas of .89-.90 for composite scales, .73-.87 for the clinical and adaptive scales, and .85 for the clinical index. Test-retest ranged from .77-.87 for the composite scales, .59-.83 for the clinical and adaptive scales, and .80 for the clinical index. The current survey utilized the Anxiety (11 items), Depression (10 items), Attention (9 items), and Hyperactivity (8 items) clinical subscales.

Scoring Information: Two response formats are used: T for True or F for False; or N for Never, S for Sometimes, O for Often, or A for Almost Always.

- T/true= 1
- F/false= 0
- N/never = 0
- S/sometimes = 1
- O/often= 2
- A/almost always = 3

Sum all items to produce a total raw score for each subscale, where higher scores indicate more problems. Raw scores, t-scores (Mean=50, SD=10), and percentiles can be used for interpretation.

AOF used SRP-C ages 8-11 tables from manual for scoring of the COVID Youth questionnaire

- Risk level for adaptive and clinical scales (Table 2.2 of manual, p.19):

Table 2.2 Scale and Composite Score Classification

Classification		T-score range
Adaptive scales	Clinical scales	
Very High	Clinically Significant	70 and above
High	At-Risk	60–69
Average	Average	41–59
At-Risk	Low	31–40
Clinically Significant	Very Low	30 and below

Missing Items:

Note 3 or more items missing per subscale will invalidate that subscale. If one or two items are missing. Follow the steps below.

Table 6.7 summarizes the adjustment factors used on each SRP form. To adjust the raw score of the Anxiety scale, for example, locate the adjustment factor (“1”) in the table. If the respondent omitted two Anxiety scale items, the number of unscorable items is multiplied by the adjustment factor as follows: $2 \times 1 = 2$. Thus, 2 points would be added to the Anxiety scale raw score prior to its conversion to a *T* score.

Table 6.7 SRP Adjustment Factors for Unscorable Item Responses (Maximum 2 per Scale)

Scale	SRP		
	C	A	COL
Attitude to School	1	1	—
Attitude to Teachers	1	1	—
Sensation Seeking	—	1	1
Atypicality	1	0	0
Locus of Control	1	1	0
Social Stress	1	1	1
Anxiety	1	1	1
Depression	0	0	0
Sense of Inadequacy	1	1	1
Somatization	—	0	0
Attention Problems	1	1	1
Hyperactivity	1	1	1
Alcohol Abuse	—	—	0
School Maladjustment	—	—	1
Relations With Parents	2	2	2
Interpersonal Relations	2	2	2
Self-Esteem	2	2	2
Self-Reliance	2	2	2
Anger Control	—	1	1
Ego Strength	—	2	2
Mania	—	1	1
Test Anxiety	—	1	1

Important Note: 4 subscales (Anxiety, Depression, Attention Problems, and Hyperactivity) were used to gather a broad range of behaviour while limiting the number of questionnaire items for youth. These subscales can be interpreted individually. Anxiety and Depression **cannot be combined to create a broader internalizing composite** due to missing subscales (e.g., Internalizing composite requires, anxiety, depression, social stress, atypicality, etc.). Attention Problems and hyperactivity can be combined to get the inattention/hyperactivity composite.

Primary Scale	Definition	Items
Anxiety	The tendency to feel nervous, fearful, or have worries about real or imagined problems. Higher scores indicate greater anxiety problems.	11 ITEMS: 6, 10, 15, 19, 21, 22, 25, 28, 33, 35, 38
Attention Problems	The tendency to be easily distracted and unable to concentrate more than momentarily. Higher scores indicate risk of attention problems.	9 ITEMS: 3, 7, 9, 12, 17, 27, 30 (reverse code), 34, 37 (reverse code)
Depression	Feelings of unhappiness, sadness, and stress that may result in an inability to carry out everyday activities or may bring on thoughts of suicide. Higher scores indicate greater risk of depressive problems.	10 ITEMS: 2, 4, 5, 8, 13, 14, 20, 26, 31, 36
Hyperactivity	The tendency to be overly active, rush through work or activities, and act without thinking. Higher scores indicate greater hyperactivity.	8 ITEMS: 1, 11, 16, 18, 23, 24, 29, 32

Composite Scale	Definition
Hyperactivity/Inattention	Attention problems Hyperactivity

Variable Names:

ycv1_basc1	ycv1_basc9	ycv1_basc17	ycv1_basc25	ycv1_basc33
ycv1_basc2	ycv1_basc10	ycv1_basc18	ycv1_basc26	ycv1_basc34
ycv1_basc3	ycv1_basc11	ycv1_basc19	ycv1_basc27	ycv1_basc35
ycv1_basc4	ycv1_basc12	ycv1_basc20	ycv1_basc28	ycv1_basc36
ycv1_basc5	ycv1_basc13	ycv1_basc21	ycv1_basc29	ycv1_basc37
ycv1_basc6	ycv1_basc14	ycv1_basc22	ycv1_basc30	ycv1_basc38
ycv1_basc7	ycv1_basc15	ycv1_basc23	ycv1_basc31	
ycv1_basc8	ycv1_basc16	ycv1_basc24	ycv1_basc32	

References: Reynolds, C.R., & Kamphaus, R.W. (2015). *Behavior assessment system for children* (3rd ed.). Bloomington: NCS Person, Inc.

Description: Children were asked 38 questions relating to anxiety, depression, hyperactivity, and attention problems in accordance with the Behaviour Assessment System for Children (BASC). (Full description is unavailable due to licensing descriptions).

Common Sense Media – Screen Time Weekday

Location: Section 5: Screen Time and Social Media; Question 14

Concept: screen time duration

Items: 1

Description: This question was adapted from one item in the Common Sense Media report, *The Common Sense Census: Media Use by Tweens and Teens*. The survey questions were part of an ongoing study tracking social media use among American pre-adolescents and teenagers, aged 8- to 18-years. The original survey questions were developed by the study investigators.

Important Note: The question was adapted from the original item, “Thinking about yesterday, how much TIME did you spend doing each activity?” and responses included: “using a computer for homework”, “using a tablet for homework”, or “using a smartphone for homework”. The adapted item and responses are provided below.

Scoring Information: No scoring information provided.

- None = 0
- 1 hour or less = 1
- 2 hours or less = 2
- 3 hours or less = 3
- 4 hours or less = 4
- 5 hours or less = 5
- 6 hours or less = 6
- 7 hours or more = 7

Variable Names:

yev1_st1

References:

Rideout, V., & Robb, M.B. (2018). *The Common Sense Census: Media use by tweens and teens, 2019*. San Francisco, CA: Common Sense Media.

13. Thinking about a typical <u>weekday (Monday, Tuesday, Wednesday, Thursday, Friday)</u> during COVID-19, how much time did you spend using electronic devices for fun (e.g., smartphone, tablet, compute, video game system, TV)?							
None	1 hour or less	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours or more

Common Sense Media – Screen Time Weekend

Location: Section 5: Screen Time and Social Media; Question 15

Concept: screen time duration

Items: 1

Description: This question was adapted from one item in the Common Sense Media report, *The Common Sense Census: Media Use by Tweens and Teens*. The survey questions were part of an ongoing study tracking social media use among American pre-adolescents and teenagers, aged 8- to 18-years. The original survey questions were developed by the study investigators.

Important Note: The question was adapted from the original item, “Thinking about yesterday, how much TIME did you spend doing each activity?” and responses included: “using a computer for homework”, “using a tablet for homework”, or “using a smartphone for homework”. The adapted item and responses are provided below.

Scoring Information: No scoring information provided.

- None = 0
- 1 hour or less = 1
- 2 hours or less = 2
- 3 hours or less = 3
- 4 hours or less = 4
- 5 hours or less = 5
- 6 hours or less = 6
- 7 hours or more = 7

Variable Names:

yev1_st2

References:

Rideout, V., & Robb, M.B. (2018). *The Common Sense census: Media use by tweens and teens, 2019*. San Francisco, CA: Common Sense Media.

14. Thinking about a typical <u>weekend day (Saturday, Sunday)</u> during COVID-19, how much time did you spend using electronic devices for fun (e.g., smartphone, tablet, compute, video game system, TV)?							
None	1 hour or less	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours or more

Common Sense Media - Technoference

Location: Section 5: Screen Time and Social Media; Question 16

Concept: Technoference

Items: 2

Description: Two questions were adapted from one item in the Common Sense Media report, *Social media, social life*. The survey questions were part of an ongoing study tracking social media use among American teenagers, aged 13- to 17-years. The original survey questions were developed by the study investigators.

Important Note: The original item asked, “Do you agree or disagree with the following statement. I wish my parents would spend less time on their phones and other devices?”. The item was adapted to two statements noted below. Responses changed from “Strongly agree” to “Strongly disagree” to “never”, “sometimes”, “often”, and “almost always”.

Scoring Information: No scoring information provided. Higher scores indicate greater technoference.

- Never = 1
- Sometimes = 2
- Often = 3
- Almost Always = 4

Variable Names:

ycv1_st3

ycv1_st4

References

Rideout, V., & Robb, M.B. (2018). *Social media, social life: Teens reveal their experiences*. San Francisco, CA: Common Sense Media.

15. Please complete the following:				
	Never	Sometimes	Often	Almost Always
1.	I wish my parent or caregiver would spend less time on their phones and other devices.			
2.	I get frustrated with my parent or caregiver for being on their phone or other device so much when we're spending time together.			

Common Sense Media – Screen Type Frequency

Location: Section 5: Screen Time and Social Media; Question 17

Concept: screen types

Items: 6

Description: This question was adapted from the question, “How often do you do each of the following activities?” in the Common Sense Media report, *The Common Sense Census: Media Use by Tweens and Teens*. The survey questions were part of an ongoing study tracking social media use among American pre-adolescents and teenagers, aged 8- to 18-years. The original survey questions were developed by the study investigators.

Important Note: “During COVID-19” was added to the beginning of the original question. The items “watch tv” and “watch videos online” were combined to “watch or stream movies/videos on TV or online”. The item “use social media” was adapted to “look at or post on social media”. The items “play computer games”, “play video games” and “play mobiles games” were combined to “play video games or apps either on a gaming system (e.g., Xbox, Nintendo, Wii, PlayStation) or on a phone, tablet, or computer”. The item “video chat” was developed by the AOF team. Other items on the original question were excluded here.

Scoring Information: No scoring information provided. Higher scores indicate greater frequency of engagement in an activity.

- Never = 0
- Less than once a month = 1
- At least once a month = 2
- At least once a week = 3
- Every day = 4

Variable Names:

yev1_st5a

yev1_st5c

yev1_st5e

yev1_st5b

yev1_st5d

yev1_st5f

References

Rideout, V., & Robb, M.B. (2018). *The Common Sense census: Media use by tweens and teens, 2019*. San Francisco, CA: Common Sense Media.

16. During COVID-19, how often do you do each of the following activities?					
	Every day	At least once a week	At least once a month	Less than once a month	Never
1.	Watch or stream movies/videos on TV or online (e.g., Netflix, YouTube)				
2.	Sending texts or messages (e.g., iMessage, Google Classroom, Snapchat)				
3.	Look at or post on social media (e.g., Snapchat, Instagram, TikTok)				

4. Play video games or apps either on a gaming system (e.g., Xbox, Nintendo, Wii, PlayStation) or on a phone, tablet, or computer
5. Use a computer for homework (laptop or desktop)
6. Video chat (e.g., Skype, WhatsApp, FaceTime)

Common Sense Media – Screen Type Duration

Location: Section 5: Screen Time and Social Media; Question 18

Concept: screen type duration

Items: 6

Description: This question was adapted from the question, “How often do you do each of the following activities?” in the Common Sense Media report, *The Common Sense Census: Media Use by Tweens and Teens*. The survey questions were part of an ongoing study tracking social media use among American pre-adolescents and teenagers, aged 8- to 18-years. The original survey questions were developed by the study investigators.

Important Note: “During COVID-19” was added to the beginning of the original question. The items “watch tv” and “watch videos online” were combined to “watch or stream movies/videos on TV or online”. The item “use social media” was adapted to “look at or post on social media”. The items “play computer games”, “play video games” and “play mobiles games” were combined to “play video games or apps either on a gaming system (e.g., Xbox, Nintendo, Wii, PlayStation) or on a phone, tablet, or computer”. The item “video chat” was developed by the AOF team. Other items on the original question were excluded here.

Scoring Information: No scoring information provided. Higher scores indicate greater time spent engaged in an activity.

- 0 minutes = 1
- 15 minutes = 2
- 30 minutes = 3
- 1 hour = 4
- 2 hours = 5
- 3 hours = 6
- 4 hours = 7
- 5 hours or more = 8

Variable Names:

ycv1_st6a	ycv1_st6c	ycv1_st6e
ycv1_st6b	ycv1_st6d	ycv1_st6f

References:

Rideout, V., & Robb, M.B. (2018). *The Common Sense census: Media use by tweens and teens, 2019*. San Francisco, CA: Common Sense Media.

ITEMS ONLY DISPLAYED IF NEVER IS NOT SELECTED FOR CORRESPONDING ACTIVITIES IN QUESTION 18

17. On an average day, how much time do you spend doing each activity?

0 minutes	15 minutes	30 minutes	1 hour	2 hours	3 hours	4 hours	5 hours or more
1. Watch or stream movies/videos on TV or online (e.g., Netflix, YouTube)							
2. Sending texts or messages (e.g., iMessage, Google Classroom, Snapchat)							
3. Look at or post on social media (e.g., Snapchat, Instagram, TikTok)							
4. Play video games or apps either on a gaming system (e.g., Xbox, Nintendo, Wii, Playstation) or on a phone, tablet, or computer							
5. Use a computer for homework (laptop or desktop)							
6. Video chat (e.g., Skype, WhatsApp, FaceTime)							

Common Sense Media – Screen Time and Connection

Location: Section 5: Screen Time and Social Media; Question 19

Concept: social screen time

Items: 3

Description: These items were adapted from the question, “How often do you do each of the following activities?” in the Common Sense Media report, *The Common Sense Census: Media Use by Tweens and Teens*. The survey questions were part of an ongoing study tracking social media use among American pre-adolescents and teenagers, aged 8- to 18-years. The original survey questions were developed by the study investigators.

Important Note: This question was added as a follow-up to the original question posed in the Common Sense Media report and was self-developed by the AOF team. The items “watch tv” and “watch videos online” were combined to “watch or stream movies/videos on TV or online”. The items “play computer games”, “play video games” and “play mobiles games” were combined to “play video games or apps either on a gaming system (e.g., Xbox, Nintendo, Wii, PlayStation) or on a phone, tablet, or computer”. Responses (never, almost never, sometimes, almost always, and always) were developed by the AOF team.

Scoring Information: No scoring information provided. Higher scores indicate more time spent alone while engaged in an activity.

- Never = 1
- Almost never = 2
- Sometimes = 3
- Almost always = 4
- Always = 5

Variable Names:

yev1_st7a

yev1_st7d

yev1_st7e

References:

Rideout, V., & Robb, M.B. (2018). *The Common Sense census: Media use by tweens and teens, 2019*. San Francisco, CA: Common Sense Media.

ITEMS ONLY DISPLAYED IF NEVER IS NOT SELECTED FOR CORRESPONDING ACTIVITIES IN QUESTION 18				
18. How often are you alone or by yourself when you...				
Never	Almost never	Sometimes	Almost Always	Always
1. Watch or stream movies/videos on TV or online (e.g., Netflix, YouTube)				
2. Play video games or apps either on a gaming system (e.g., Xbox, Nintendo, Wii, PlayStation) or on a phone, tablet, or computer				
3. Use a computer for homework (laptop or desktop)				

Middle Years Development Instrument (MDI) – Well-Being

Location: Section 6: Wellbeing; Question 20

Concept: Wellbeing

Items: 8

Description: These eight questions were taken from the *Optimism* and *Happiness* subscales of the *Social & Emotional Development* dimension on the Middle Years Development Instrument (MDI) to children’s wellbeing during COVID-19. Optimism refers to the mindset of having positive expectations for the future. Happiness, or subjective wellbeing, refers to how content or satisfied children are with their lives. The MDI indicates a theoretically predicted factor structure, high internal consistency, and convergent and divergent validity for five dimensions of child wellbeing in middle childhood: social and emotional development, connectedness to peers and to adults at school, at home, and in the neighborhood, school experiences, physical health and wellbeing, and constructive use of after-school time.

Scoring Information: Recode the items as follows. Low corresponds to low optimism or happiness, medium corresponds to medium optimism or happiness, and high corresponds to high optimism or happiness. AOF summed responses and used tertiles as cut-offs.

- High = Children whose average responses were “agree a lot” and “agree a little”
- Medium = Children whose average responses were “don’t agree or disagree”, or who reported a mix of positive and negative responses.
- Low = Children whose average responses were “disagree a little” or “disagree a lot”

Primary Scale	Definition	Items
Optimism	The mindset of having positive expectations for the future.	1,2,3
Happiness	How content or satisfied children are with their lives.	4, 5, 6, 7, 8

Variable Names:

ycv1_wb4 ycv1_wb9
ycv1_wb5 ycv1_wb10
ycv1_wb6 ycv1_wb11
ycv1_wb7
ycv1_wb8

References:

- 1) MDI Technical Guide (April 2020). http://www.discovermdi.ca/wp-content/uploads/2020/04/MDI-Technical_Guide-v1-202004.pdf

19. How much do you agree or disagree with the following statements? Remember, there are no right or wrong answers.					
	Disagree a lot	Disagree a little	Don't agree or disagree	Agree a little	Agree a lot
1.	I have more good times than bad times.				
2.	I believe more good things than bad things will happen to me.				
3.	I start most days thinking I will have a good day.				
4.	In most ways my life is close to the way I would want it to be.				
5.	Things in my life are excellent.				
6.	I am happy with my life.				
7.	So far I have gotten the important things I want in life.				
8.	If I could live my life over, I would want to have it the same way.				

Chronological Age

Location: Section 7: All About You; Question 21

Concept: age

Items: 1

Description: This self-developed item assessed for participants' age in years.

Scoring Information:

- 7 years old = 7
- 8 years old = 8
- 9 years old = 9
- 10 years old = 10
- 11 years old = 11
- 12 years old = 12
- 13 years old = 13

Variable Names:

yev1_cil

20. How old are you?						
7 years old	8 years old	9 years old	10 years old	11 years old	12 years old	13 years old

Gender/Sex

Location: Section 7: All About You; Question 22

Concept: gender/sex

Items: 1

Description: This self-developed item asked participants to report on their gender and/or sex.

Scoring Information:

- Female = 1
- Male = 2
- Other = 3

Variable Names:

yev1_ci2

21. You are:		
Female	Male	Other

Reporter

Location: Section 7: All About You; Question 23

Concept: reporter

Items: 1

Description: This self-developed item assessed for whether participants completed the survey with the help of another individual

Scoring Information:

- By myself = 1
- With a friend = 2
- With a parent = 3
- With an adult other than my parent = 4

Variable Names:

yev1_ci3

22. I completed these questions:			
By myself	With a friend	With a parent	With an adult other than my parent

Validity

Location: Section 7: All About You; Question 24

Concept: validity

Items: 1

Description: This self-developed item assessed for the validity of participant responses on the survey.

Scoring Information: Lower scores indicate less validity in responses. Researchers may consider responses “Not at all true (1)” or “a little true(2)” as not valid, and responses “Pretty much true (3)” or “very much true(4)” as valid.

Variable Names:

y cv1_ ci4

23. Sometimes it is hard to tell other people how you feel or what you think. My answers to this survey were:			
Not at all true	A little true	Pretty much true	Very much true

COVID-19 Experience

Location: Section 7: All About You; Question 25

Concept: COVID-19 experience

Items: 1

Description: This self-developed item assessed for any additional qualitative information of respondents on the survey.

Variable Names:

y cv1_ cmt

24. Is there anything else you would like to tell us about your COVID-19 experience or this survey?
Text response