

Parent's COVID-19 Dilemma: In Person vs Distance Learning

Weighing the Risk of COVID-19 Disease vs Risks
to Mental Health and Academic Achievement

Impact of COVID-19 on Children and Youth Mental Health

- COVID-19 has precipitated dramatic changes in the lives of C&Y
- Multiple mental health stressors
 - School closures lead to reduced peer interactions and social isolation
 - Social distancing further isolates
 - Family stress (work, financial, health)
 - COVID-19 exposure

Impact of COVID-19 on Children and Youth Mental Health

- The major COVID related disruption in the lives of C&Y has been the pivot to on line learning
- In person schooling provides key protective factors for children's mental health: social interactions, structured routines, physical activity and societal oversight
- Global increase in depression prevalence from 12.9% to 25.2%
- Global increase in anxiety from 11.6% to 20.5%
- What are the effects on Canadian children?

Mostly worse, occasionally better: impact of COVID-19 pandemic on the mental health of Canadian children and adolescents

Cost et al. *European Child & Adolescent Psychiatry*, February 2021

- 1013 parents and 385 C&Y age 10-18
- 4 cohorts
 - Sick Kids Psychiatry
 - Province of Ontario Neurodevelopmental Network (POND)
 - Target Kids
 - Spit for Science
- Parent and youth report: 6-9 yrs (parent only) , 10-12 yrs and 13-18 yrs

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- Cross sectional data re change in 6 MH domains
 - Depression worse in 35-46%, better in 8.8-19.6%
 - Anxiety worse in 37.8-46.5%, better in 3.8-14% (ASD)
 - Irritability worse in 44.6-53.6%, better in 4.1-10.9%
 - Attention worse in 45.6-53.3%, better in 4.4-11%
 - Hyperactivity worse in 30- 48.8%, better in 2.2-8.2%
 - OCD worse in 19.7-22.6%, better in 3.9-4.1%
- **67-70% had deterioration in at least one domain**
- **Those with pre-existing MH conditions did worse**

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- MH changes were analyzed for association with pandemic risk factors: COVID exposure, compliance to restrictions, economic concerns and social isolation
- **For school aged children, in all MH domains, stress from social isolation was the strongest risk factor for MH deterioration**
- Less classroom time primary driver of social isolation, and triggers loss of structure and more screen time

Screen Use and Mental Health Symptoms in Canadian Children and Youth During the COVID-19 Pandemic

Li et al. JAMA Network Open. 2021;4(12):e2140875. doi:10.1001/jamanetworkopen.2021.40875

- 4 Cohorts as per Cost study
- Longitudinal May 2020 – April 2021
- Screen time <1 hour to >8 hours
 - TV & digital media
 - Video games
 - Electronic learning
 - Video chatting
- Parent reported outcomes: depression, anxiety, irritability, hyperactivity, inattention and **conduct problems**

Screen Use and Mental Health Symptoms in Canadian Children and Youth During the COVID-19 Pandemic

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- Higher TV/digital media associated with depression, anxiety, irritability and inattention
- No link between TV/digital media and depression in children with ASD
- Increasing video game time correlated with depression, irritability, inattention and hyperactivity

Screen Use and Mental Health Symptoms in Canadian Children and Youth During the COVID-19 Pandemic

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- Electronic learning associated with depression and anxiety
- No protective association of video chatting
- Directionality can't be concluded but media type associated with distinct MH symptoms ie. Video games and hyperactivity

Impact of COVID-19 on Children and Youth Mental Health

- Subjective clinical impression of worsening mental health in C&Y (patients more distressed, mental health clinicians with growing waitlists)
- Parents, children and youth report deteriorating mental health
- C&Y suicide attempts have significantly increased
- C&Y substance use admissions have increased
- BCCH has had a 50% increase in admissions for children and youth with eating disorders

Academic Impact of Pivot to Distance Learning

Teachers

- Most were ill-prepared for transition and inexperienced in virtual teaching/learning
- Instruction time significantly reduced

Academic Impact of Pivot to Distance Learning

Family Vulnerability

- Many families ill-equipped to instruct, motivate and engage learners
 - 60% both caregivers work during day
 - 10% at least one parent has mental health struggles
 - 15% at least one parent with low literacy
 - 14% of families are single parent
 - Up to 30% of BC families have no access to internet enabled devices
 - 12% of Canadian homes without internet (economic gradient)
 - 6% of parents do not speak English at home

Academic Impact of Pivot to Distance Learning

Student Vulnerability

- Many students ill suited for online learning
 - 5-9% of students with ADHD are significantly challenged by virtual learning with 78% spending <10 hours per week on schoolwork (vs 27 hours/week in class)
 - 10-20% of students with learning disabilities (dyscalculia and dyslexia) and/or intellectual disabilities lose specialized programs

Academic Impact of Pivot to Distance Learning

Outcomes

- International data show small but significant declines in standardized measures (US, Belgium, Germany, Netherlands)
- 75% of BC parents report virtual instruction has impaired child's learning (BCCDC Sept 2020)
- Canadian data sparse with mixed findings
 - Increased failure rates
 - Lower report card scores
 - Lower scores on standardized tests
 - Higher teacher assigned grades

Learning loss does occur, most likely in the vulnerable who are also less able to recoup loss, potentially widening learning disparities

Risk of COVID Disease in School vs Risks to Mental Health and Academic Achievement with Distance Learning

- Most children and youth are at relatively low risk of serious illness from COVID-19
- School closures pose significant threats to the mental health of many, but not all, C&Y
- Significant proportion of students, especially the academically vulnerable, suffer learning loss with virtual learning
- Vulnerable students may not recoup lost academic ground
- School closures should be a last resort
- Parents considering choosing home schooling over in person learning should critically appraise their child's academic and mental health needs as well as their own capacity to teach