

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Examining the impacts of the COVID-19 pandemic on family mental health in Canada: Findings from a national cross-sectional study
AUTHORS	Gadermann, Anne; Thomson, Kimberly; Richardson, Chris; Gagne, Monique; McAuliffe, Corey; Hirani, Saima; Jenkins, Emily

VERSION 1 – REVIEW

REVIEWER	Zhongze Lou Department of Psychosomatic Medicine, Ningbo First Hospital, Ningbo, Hospital of Zhejiang University
REVIEW RETURNED	18-Aug-2020

GENERAL COMMENTS	<p>Thank you for your invitation to review this manuscript This is an interesting study which sheds light on the family mental health during Coronavirus disease (COVID-19) outbreak in Canada. The results of this study may assist in developing mechanisms to promote family mental health in similar situations in other countries.</p> <p>Introduction: 1)The introduction is adequate and raises very important question. However, considering this is a national study, the COVID-19 epidemic situation in Canada during the survey should be introduced.</p> <p>2)In Line 11-12, Page 2, the authors mentioned that ‘ These shifts have profoundly interrupted the systems and structures that previously supported the mental health and wellbeing of families, and also operated to mitigate the risks that contribute to health and social inequities.’ Why these shifts also mitigate the risks? Shouldn't it increase the risks?</p> <p>Methods: 1)The authors should describe more about measurement tools for a) mental health of parents and children b) parent-child interactions and c)the factors that support mental health in the family context.</p> <p>2)Could the authors provide any published paper to the validation of the survey items ?</p> <p>3)The Parents - identified stressors and supports can not be examined by only using chi square tests because the confounding factors of stressors and supports had not been controlled.</p>
-------------------------	--

	<p>4)The authors should mentioned the statistical software you employed for statistical analyses. I also suggest to add a subheading ‘Statistic analysis’.</p> <p>Results:</p> <p>1)Results section is difficult to follow in the absence of Table. Many variables were reported (e.g. Line 10-44, Page 6; Line 9-24, Line 45-56, Page 7) but no adequately presented in a table.</p> <p>2)Mental health of participants was not assessed using previously developed measurement tools (e.g PHQ-9, GAD-7) with good reliability and validity, so I would like to know the reliability and validity of this survey.</p> <p>Discussion:</p> <p>1)The decimal point of percentage the authors reported in Discussion section should not be omitted.</p> <p>2)The authors mentioned that ‘44.3% reporting worse mental health as a result of the pandemic’, please discuss why such a high figure was reported and it would be better to compare this figure to the mental health among similar population in other countries during the COVID-19.</p> <p>3)The authors should compare all the results with previous studies during the COVID-19 or similar epidemic (e.g. SARS, H1N1), instead of daily situation. (Line 29-38, Page8) There are some of the published articles I recommend you to read. [1]Ying Yuchen,Ruan Liemin,Kong Fanqian et al. Mental health status among family members of health care workers in Ningbo, China, during the coronavirus disease 2019 (COVID-19) outbreak: a cross-sectional study.[J] .BMC Psychiatry, 2020, 20: 379. [2]Li Xin,Lu Peixin,Hu Lianting et al. Factors Associated with Mental Health Results among Workers with Income Losses Exposed to COVID-19 in China.[J] .Int J Environ Res Public Health, 2020, 17: undefined. [3]Hu Zhao,Lin Xuhui,Chiwanda Kaminga Atipatsa et al. The impact of coronavirus disease (COVID-19) epidemic on lifestyle behaviors and their association with subjective wellbeing among the general population in the Mainland China: a cross-sectional study.[J] .J. Med. Internet Res., 2020, undefined: undefined.</p> <p>4)In Line 9-10, Page 9, the authors mentioned that ‘That said, digital technologies and online learning are not easily accessible for everyone’. Why That said? I guess what the authors intended to say was, ‘However’.</p> <p>5)Possible selection bias resulting from online survey should be mentioned in the Limitations.</p> <p>6)In the Implications Section, I suggest the authors to recommend more interventions to promote family mental health especially the mental health of parents with children <18 living at home.</p>
<p>REVIEWER</p>	<p>Enkeleint A. Mechili Department of Healthcare, Faculty of Public Health, University of Vlora, Albania</p>

	Clinic of Social and Family Medicine, School of Medicine, University of Crete, Greece
REVIEW RETURNED	18-Aug-2020

GENERAL COMMENTS	<p>This is a very interesting and up-to-date article that tries to assess the impact of Covid-19 pandemic in the health of parents with young children. To my view, the article is well presented and written. Some suggestions:</p> <p>Abstract part:</p> <ol style="list-style-type: none"> 1. Add 1-2 sentences as background. 2. At conclusion part please clarify which families reported worse mental health. <p>Introduction part:</p> <ol style="list-style-type: none"> 1. Page 4 row 8-9. With the term social isolation, you mean the quarantine? 2. Page 4 rows 21-26. This is one sentence. Please divide to be more clear. 3. Page 4 rows 49-52 check this article. "Is returning to work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. Brain, Behavior, and Immunity, 87, 84– 92". To my view, this is very relevant with what you are presented in these rows. 4. Page 5 rows 6-8. It is not very clear the aim of the study. Please reformulate this paragraph. <p>Methods part:</p> <ol style="list-style-type: none"> 1. Page 5 rows 30-32. More information is needed about the "citizens jury participatory methodology process" 2. More information is needed about the instrument used 3. Please add few sentences about the ethical issues. <p>Discussion part:</p> <ol style="list-style-type: none"> 1. Page 9 rows 13-16. To my view, this sentence should be removed and presented at the conclusions part. 2. Add a paragraph with key conclusions.
-------------------------	---

REVIEWER	JY US
REVIEW RETURNED	21-Aug-2020

GENERAL COMMENTS	<p>This was an excellent study on so many levels. It's a very important topic and extremely well written with key points made easy to find through the structured format.</p> <p>My considerations are indicated below:</p> <ol style="list-style-type: none"> 1. Authors may consider use bolder headers. 2. Introduction: There are some latest articles that discussed about the impact of COVID-19 on mental and behavioral health of children and parents, some also discussed the digital technologies that authors mentioned in the manuscript. Authors may consider discuss the newest findings and insights from: Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. JAMA internal medicine, 180(6), 817-818.
-------------------------	---

	<p>Ye J. Pediatric Mental and Behavioral Health in the Period of Quarantine and Social Distancing With COVID-19. <i>JMIR Pediatr Parent.</i> 2020;3(2):e19867.</p> <p>Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: a narrative review to highlight clinical and research needs in the acute phase and the long return to normality. <i>Child and adolescent psychiatry and mental health</i>, 14, 1-11.</p> <p>3. Child mental health and parent-child interactions: Since the survey only recruited adults, the results about child mental health from the parents may not be reliable, especially for children who are older, parents may not be able to have a good sense of their true feeling.</p> <p>4. Child mental health and parent-child interactions: “A higher proportion of parents reported increased harsh words with children when they were stressed about finances” “However, overall parents also reported that there were circumstances in which they experienced increased positive interactions, including having more quality time” Do authors mean parents become more “extreme”? The relationship become more polarized? Authors should provide more details about the “pattern”, with what kind of circumstances or factors, parent-child relationship was healthy. In addition, what are children’s reactions to the pandemic? Children’s reaction to parents’ harsh words?</p> <p>5. Sources of support “Specific to children’s stress, 34.0% (95% CI 30.3-37.9) of parents identified staying in touch with teachers, school adults, and child care workers as a source of support during the pandemic, and 5.8% (95% CI 4.1-8.0) identified accessing virtual educational or self-help mental health resources (e.g., websites, apps) as a strategy that had helped their children.” Again, the parents-reported results may not be reliable.</p> <p>“Additionally, 4.2% (95% CI 2.8-6.1) of parents had connected their child with a school or community-based mental health worker or counsellor virtually (e.g., via phone or video-chat).” Why the proportion (4.2%) is low? Any reasons?</p> <p>6. The survey asked the characteristics such as emotions, stress, strategies in the “past two weeks”. Since it was not a longitudinal study, the results may not have so many implications as authors demonstrated in the discussion. There are several reasons: 1) the pandemic situation always changes as time goes by; 2) Canada’s implications may not be able to apply to other countries.</p>
--	--

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Zhongze Lou

Institution and Country: Department of Psychosomatic Medicine, Ningbo First Hospital, Ningbo,

Hospital of Zhejiang University
Competing interests: None declared

Please leave your comments for the authors below
Thank you for your invitation to review this manuscript

This is an interesting study which sheds light on the family mental health during Coronavirus disease (COVID-19) outbreak in Canada. The results of this study may assist in developing mechanisms to promote family mental health in similar situations in other countries.

Introduction:

1)The introduction is adequate and raises very important question. However, considering this is a national study, the COVID-19 epidemic situation in Canada during the survey should be introduced.

We thank the reviewer for this suggestion and have added detail on the Canadian context on Page 3, paragraph 3 (tracked changes copy):

“In Canada, federal and provincial governments began implementing lockdown measures mid-March 2020 including border closures and restricted travel, restrictions on group gatherings, school closures, mandatory working from home, and temporary suspension of non-essential health and public services (8). National COVID-19 incidence rates peaked in April with nearly 3,000 new cases confirmed daily (9). By early May, incidence rates were decreasing and provinces began easing lockdown measures including re-opening businesses and encouraging rehiring of employees (8).”

This expands the existing description of the data collection period on page 5 paragraph 2:

“The data collection period captured the first phases of “re-opening” across many Canadian provinces and territories, emerging from approximately two months of mandated physical distancing, school and work closures, and related disruptions.”

2)In Line 11-12, Page 2, the authors mentioned that ‘ These shifts have profoundly interrupted the systems and structures that previously supported the mental health and wellbeing of families, and also operated to mitigate the risks that contribute to health and social inequities.’ Why these shifts also mitigate the risks? Shouldn't it increase the risks?

We have revised this sentence for clarity (page 3, paragraph 1): “These shifts have profoundly interrupted the systems and structures that previously operated to both support the mental health and wellbeing of families and mitigate the risks that contribute to health and social inequities.”

Methods:

1)The authors should describe more about measurement tools for a) mental health of parents and children b) parent-child interactions and c)the factors that support mental health in the family context.

We have added detail on the measures on page 4, paragraph 5.

“Survey items were informed by a longitudinal survey first commissioned by the Mental Health Foundation in March 2020 and developed in consultation with people with lived experience of mental health conditions via a citizen’s jury participatory methodology process. The citizen’s jury was a collaborative process that engaged people with diverse experiences and backgrounds in the development and interpretation of the research to enhance its relevance and impact, including insights on stressors, coping strategies, and mental health (18,19). Items on family mental health

were adapted from previously developed community survey items related to the COVID-19 pandemic from the University of Michigan (3). Modifications were made by the research team in consultation with collaborators from the Canadian Mental Health Association to reflect the Canadian context, aimed at examining indicators of mental health, stress, and coping related to the COVID-19 pandemic among the Canadian population.”

2) Could the authors provide any published paper to the validation of the survey items ?

We have added references for the citizen’s jury process and family context items (University of Michigan). A strength of this study was the rapid development of survey items specific to COVID-19 that were co-developed by people with lived experience of mental health issues and mental health service providers, but validity/validation evidence has not been published. We have expanded our study limitations as follows (page 11, paragraph 2):

“This study did not measure the prevalence of specific mental health outcomes or include clinical assessments of mental illness which may limit comparability with other research. This study also did not take into account baseline measures of mental health or multiple comorbidities, and was specific to the Canadian context during the first re-opening phase of the COVID-19 pandemic... The purpose of this study was to assess preliminary impacts of the COVID-19 pandemic on families’ general mental health at a community level and to provide early data to inform relevant policy and programming actions.”

3) The Parents - identified stressors and supports can not be examined by only using chi square tests because the confounding factors of stressors and supports had not been controlled.

The purpose of this study was to provide a descriptive first look at the mental health impact of the pandemic at a community level. While this descriptive approach has several limitations including not being able to assess causality, this study provides important baseline information that future research can compare to. We have taken care to discuss all results as comparisons of proportions, and have not made causal claims beyond the scope of these analyses. We have acknowledged in the study limitations that we did not control for confounders (page 11, paragraph 2):

“The study design was cross-sectional, therefore we cannot determine if outcomes such as parent-child interactions and parent stressors were causally related, only that they were associated. We also did not control for potential confounding variables that might have introduced bias; further in-depth investigations would complement this study by providing more understanding of these associations.”

4) The authors should mention the statistical software you employed for statistical analyses. I also suggest to add a subheading ‘Statistic analysis’.

We have added the statistical software and have corrected a formatting issue that made our previous “Measures and Analyses” heading difficult to read.

Page 5:

“Data were analyzed using SPSS version 26 (6).”

Results:

1) Results section is difficult to follow in the absence of Table. Many variables were reported (e.g. Line

10-44, Page 6; Line 9-24, Line 45-56, Page 7) but no adequately presented in a table.

We notice that some of our headers were hard to see in the manuscript file – we have corrected these to help readers navigate the results section. We have also referred to Figures 1 and 2 earlier in the paragraph (specific to the lines the reviewer mentions) to alert readers that results are also presented visually.

2)Mental health of participants was not assessed using previously developed measurement tools (e.g PHQ-9, GAD-7) with good reliability and validity, so I would like to know the reliability and validity of this survey.

We agree that validated scales are the gold standard for assessing mental health outcomes, but single item self-rated mental health measures are frequently used in population health surveys and are associated with multi-item measures of mental health (e.g., Ahmad et al 2014). We have expanded our description of the measures and limitations to clarify that we have not assessed the prevalence of specific mental health outcomes using standard scales or measures (please see above). The mental health measures used in this survey were developed for the purpose of this study, with researchers, service providers, and community members, in rapid response to the COVID-19 pandemic. These included items on suicide and self-harm (adapted from the UK Mental Health survey) and single items on changes in mental health since the start of the COVID-19 pandemic.

BMC Health Services Research 2014

Single item measures of self-rated mental health: a scoping review

Farah Ahmad, Anuroop K Jhaji, Donna E Stewart, Madeline Burghardt & Arlene S Bierman

Discussion:

1)The decimal point of percentage the authors reported in Discussion section should not be omitted.

We now report percentages up to one decimal point throughout the Discussion.

2)The authors mentioned that ‘44.3% reporting worse mental health as a result of the pandemic’, please discuss why such a high figure was reported and it would be better to compare this figure to the mental health among similar population in other countries during the COVID-19.

3)The authors should compare all the results with previous studies during the COVID-19 or similar epidemic (e.g. SARS, H1N1), instead of daily situation. (Line 29-38, Page8)

There are some of the published articles I recommend you to read.

[1]Ying Yuchen,Ruan Liemin,Kong Fanqian et al. Mental health status among family members of health care workers in Ningbo, China, during the coronavirus disease 2019 (COVID-19) outbreak: a cross-sectional study.[J] .BMC Psychiatry, 2020, 20: 379.

[2]Li Xin,Lu Peixin,Hu Lianting et al. Factors Associated with Mental Health Results among Workers with Income Losses Exposed to COVID-19 in China.[J] .Int J Environ Res Public Health, 2020, 17: undefined.

[3]Hu Zhao,Lin Xuhui,Chiwanda Kaminga Atipatsa et al. The impact of coronavirus disease (COVID-19) epidemic on lifestyle behaviors and their association with subjective wellbeing among the general population in the Mainland China: a cross-sectional study.[J] .J. Med. Internet Res., 2020, undefined: undefined.

Addressing comments 2 and 3, we thank the reviewer for this suggestion and recommended

references. We have updated this section with new literature and have contextualized our findings with mental health estimates from other studies, page 9, paragraph 1:

“This study identifies that following the first lockdown phase in Canada, 44.3% of parents of children <18 living at home reported worse mental health as a result of the pandemic. Throughout the first five months of the pandemic internationally, studies of population mental health – including studies from China and the United States - estimated prevalence rates of up to 51% for anxiety symptoms, up to 48% for depressive symptoms, and up to 54% for symptoms of psychological distress (22). Within parts of Canada, the prevalence of depressive symptoms has more than doubled compared to previous national estimates (23), with experts projecting national increases in suicide based on trends in unemployment (24). To our knowledge, this is the first national Canadian study to identify that parents of children <18 living at home are a group at disproportionate risk due to the COVID-19 pandemic.”

4)In Line 9-10, Page 9, the authors mentioned that ‘That said, digital technologies and online learning are not easily accessible for everyone’. Why That said? I guess what the authors intended to say was, ‘However’.

This change has been made.

5)Possible selection bias resulting from online survey should be mentioned in the Limitations.

We have added the following limitation on page 11, paragraph 2:

“Although strategies including oversampling and community partnerships were used to minimize selection bias and reduce possible technology barriers, it is possible that survey respondents differed from survey non-respondents on key measures of interest including mental health, financial security, or family conflict, which may have affected our estimates.”

6)In the Implications Section, I suggest the authors to recommend more interventions to promote family mental health especially the mental health of parents with children <18 living at home.

We have added the following recommendations on page 12, paragraph 1:

“Supports such as affordable child care, low barrier internet access, publicly-funded stepped care and psychotherapy, and easily available financial supports are interventions that can directly benefit families (33,43). Continuations of financial interventions beyond the pandemic have also been suggested, including the idea of a universal basic income (44).”

Reviewer: 2

Reviewer Name: Enkeleint A. Mechili

Institution and Country:

Department of Healthcare, Faculty of Public Health, University of Vlora, Albania

Clinic of Social and Family Medicine, Scool of Medicine, University of Crete, Greece

Competing interests: None declared

Please leave your comments for the authors below

This is a very interesting and up-to-date article that tries to assess the impact of Covid-19 pandemic in the health of parents with young children. To my view, the article is well presented and written. Some

suggestions:

Abstract part:

1. Add 1-2 sentences as background.

We thank the reviewer for their suggestions. We have maximized the wordcount within our current abstract, but at the editor's discretion we could add the following sentence:

"In the first wave of the COVID-19 pandemic, social isolation, school/child care closures, and employment instability have created unprecedented conditions for families raising children at home."

2. At conclusion part please clarify which families reported worse mental health.

Again, at the editor's discretion we could amend this to:

"This study identifies that families with children <18 at home have experienced deteriorated mental health due to the pandemic."

Introduction part:

1. Page 4 row 8-9. With the term social isolation, you mean the quarantine?

We have added, "social isolation due to physical distancing measures" to clarify that we mean isolation generally and not specifically quarantine.

2. Page 4 rows 21-26. This is one sentence. Please divide to be more clear.

We have split this sentence into 2 sentences:

"Families generally are affected by the disruptions of the pandemic. However, these pressures disproportionately affect families who experience health and social inequities including fewer financial and social resources, crowded homes, and limited technology and internet access (4–6)."

3. Page 4 rows 49-52 check this article. "Is returning to work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. Brain, Behavior, and Immunity, 87, 84– 92". To my view, this is very relevant with what you are presented in these rows.

We thank the reviewer for this article. We were attempting to make a slightly different point related to stressors specific to families who are balancing work and child care, including the limited options for returning to work (rather than the perceived safety of the workplace itself). We have not made changes to this section.

4. Page 5 rows 6-8. It is not very clear the aim of the study. Please reformulate this paragraph.

We appreciate that this original sentence was not clearly worded. We have rephrased this sentence to frame our three research questions.

"This paper presents findings on the impact of the COVID-19 pandemic on families from the first wave of a nationally representative cross-sectional survey monitoring the mental health of people living in Canada. The study aimed to answer three questions: a) How is the COVID-19 pandemic affecting the mental health of parents and children and what subpopulations or subgroups are most impacted by the pandemic? b) How have parent-child interactions changed due to the pandemic? and c) What are

the factors that support mental health in the family context? The findings provide critical evidence to inform rapid, data-driven public health responses to meet the mental health needs of families and children in the context of the COVID-19 pandemic and beyond.”

Methods part:

1. Page 5 rows 30-32. More information is needed about the "citizens jury participatory methodology process"

2. More information is needed about the instrument used

Responding to Reviewer comments 1 and 2, we have added detail on the citizen's jury and measures on page 4, paragraph 5 (tracked changes copy).

“Survey items were informed by a longitudinal survey first commissioned by the Mental Health Foundation in March 2020 and developed in consultation with people with lived experience of mental health conditions via a citizen's jury participatory methodology process. The citizen's jury was a collaborative process that engaged people with diverse experiences and backgrounds in the development and interpretation of the research to enhance its relevance and impact, including insights on stressors, coping strategies, and mental health (18,19). Items on family mental health were adapted from previously developed community survey items related to the COVID-19 pandemic from the University of Michigan (3). Modifications were made by the research team in consultation with collaborators from the Canadian Mental Health Association to reflect the Canadian context, aimed at examining indicators of mental health, stress, and coping related to the COVID-19 pandemic among the Canadian population.

3. Please add few sentences about the ethical issues.”

Ethical issues have been described on page 5 paragraph 3 (no changes):

“All participants completed an online consent process prior to beginning the survey and were provided with a small honorarium through Maru/Matchbox to compensate for their time. Ethics approval was provided by the Behavioural Research Ethics Board at the University of British Columbia (H20-01273).”

Discussion part:

1. Page 9 rows 13-16. To my view, this sentence should be removed and presented at the conclusions part.

We have moved this sentence to the conclusions.

2. Add a paragraph with key conclusions.

We have added the header “Conclusions and implications” to indicate where we have presented conclusions.

Reviewer: 3

Reviewer Name: JY

Institution and Country: US
Competing interests: None declared

Please leave your comments for the authors below

This was an excellent study on so many levels. It's a very important topic and extremely well written with key points made easy to find through the structured format.

My considerations are indicated below:

1. Authors may consider use bolder headers.

We thank the reviewer for this comprehensive review. Regarding the headers, our style preference is to keep these more descriptive.

2. Introduction:

There are some latest articles that discussed about the impact of COVID-19 on mental and behavioral health of children and parents, some also discussed the digital technologies that authors mentioned in the manuscript. Authors may consider discuss the newest findings and insights from:

Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. *JAMA internal medicine*, 180(6), 817-818.

Ye J. Pediatric Mental and Behavioral Health in the Period of Quarantine and Social Distancing With COVID-19. *JMIR Pediatr Parent*. 2020;3(2):e19867.

Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: a narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and adolescent psychiatry and mental health*, 14, 1-11.

We thank the reviewer very much for these articles and have added them in the Discussion.

3. Child mental health and parent-child interactions: Since the survey only recruited adults, the results about child mental health from the parents may not be reliable, especially for children who are older, parents may not be able to have a good sense of their true feeling.

We agree that more research is needed that could assess the mental health impact from children's own perspectives. This will be the next phase of our research but was not feasible in the current survey. We have added this limitation on page 11, paragraph 2 (tracked changes copy):

"We were also unable to assess the impact of the pandemic from the perspectives of children and youth themselves, including children's reactions to parents' stress during the pandemic and children's reported supports including use of mental health services. This is a critical knowledge gap for future research to address."

4. Child mental health and parent-child interactions:

"A higher proportion of parents reported increased harsh words with children when they were stressed about finances"

"However, overall parents also reported that there were circumstances in which they experienced increased positive interactions, including having more quality time"

Do authors mean parents become more "extreme"? The relationship become more polarized?

Authors should provide more details about the "pattern", with what kind of circumstances or factors, parent-child relationship was healthy. In addition, what are children's reactions to the pandemic?

Children's reaction to parents' harsh words?

We appreciate the opportunity to expand on these analyses. We have included additional analyses in the results providing more detail about these patterns, as well as differences in positive parent-child interactions within the subgroup of parents reporting stress related to financial concerns and existing mental health conditions. Again, we take caution in this study to present patterns proportionately that can be followed up in future research, rather than make causal claims. We also agree that children's voices will be important to include in future studies and this is in fact the next part of our research project where we will measure children's reactions to the pandemic as well as their self-reported supports and use of services.

We have updated the results and discussion sections as follows:

Results page 7, paragraph 4 (tracked changes copy):

"Parents often reported increases in both negative and positive interactions due to the COVID-19 pandemic. For example, a higher proportion of parents who reported more conflicts with children also reported increased feelings of closeness (59.1%) compared to parents who did not report more conflicts with children (47.0%), $\chi^2(1, N = 618) = 6.3, p = .012$."

Page 8 paragraph 1:

"Interestingly, a higher proportion of parents stressed about financial concerns, compared to parents who did not report this stressor, also reported increased quality time with children (71.6% vs 60.1%), showing more love and affection to their children (49.3% vs 40.5%), and observing resilience in their children (43.3% vs 33.9%), $\chi^2(1, N = 618) = 4.82-8.98, p's < .028$. A higher proportion of parents stressed about an existing mental health problem also reported showing more love and affection to children as a result of the pandemic (53.5%) compared to parents without this stressor (41.0%), $\chi^2(1, N = 618) = 7.8, p < .005$."

Discussion page 10, paragraph 2:

"Parents often reported increases in both negative and positive interactions with children due to the COVID-19 pandemic, possibly due to increased opportunities for family interactions overall. Furthermore, a larger proportion of parents stressed about financial concerns due to the pandemic reported having more quality time, showing more love and affection, and observing resilience in their children. A larger proportion of parents stressed about worsening mental health problems reported showing more love and affection with their children.... Our results indicate that strengthened connectedness may be particularly salient for families experiencing heightened stress due to the pandemic, although the specific mechanisms underlying these associations are unclear."

5. Sources of support

"Specific to children's stress, 34.0% (95% CI 30.3-37.9) of parents identified staying in touch with teachers, school adults, and child care workers as a source of support during the pandemic, and 5.8% (95% CI 4.1-8.0) identified accessing virtual educational or self-help mental health resources (e.g., websites, apps) as a strategy that had helped their children."

Again, the parents-reported results may not be reliable.

"Additionally, 4.2% (95% CI 2.8-6.1) of parents had connected their child with a school or community-based mental health worker or counsellor virtually (e.g., via phone or video-chat)."

Why the proportion (4.2%) is low? Any reasons?

Examining mental health service use from the perspectives of children and youth has been added as a future research direction. We have also added a discussion of the low uptake of virtual mental health supports on page 10, paragraph 3:

“Although online mental health services have been found to be effective, feasible, and acceptable among adults and youth (34), real-world uptake and retention has generally been found to be low (35,36). Early COVID-specific research from China has found that uptake of any mental health services since the start of the pandemic has been as low as 3.7%, with concerns raised that online mental health services may still not address present needs due to existing digital divides, appropriateness for all populations, and quality assurance (37).”

6. The survey asked the characteristics such as emotions, stress, strategies in the “past two weeks”. Since it was not a longitudinal study, the results may not have so many implications as authors demonstrated in the discussion. There are several reasons: 1) the pandemic situation always changes as time goes by; 2) Canada’s implications may not be able to apply to other countries.

We appreciate this comment and have updated our implications section on page 11, paragraph 2:

“This study did not measure the prevalence of specific mental health outcomes or include clinical assessments of mental illness which may limit comparability with other research. This study also did not take into account baseline measures of mental health or multiple comorbidities, and was specific to the Canadian context during the first re-opening phase of the COVID-19 pandemic. It will be important to monitor the impact of the pandemic on family mental health over time and in different contexts.”

VERSION 2 – REVIEW

REVIEWER	Zhongze Lou Department of Psychosomatic Medicine, Ningbo First Hospital, Ningbo, Hospital of Zhejiang University
REVIEW RETURNED	05-Nov-2020

GENERAL COMMENTS	<p>Thank you for your invitation to review this manuscript again, and the authors have revised the article mostly to my satisfaction.</p> <p>However, in my view, the results is still not presented clearly.</p> <p>1)Many results were reported but no adequately presented in a table. I can not find these results in the Figure 1 or Figure 2, neither. (For example, page 6, line 13-43; page 7, line 10-53; page 8, line 3-10; page 8, line 24-45) I suggest the authors to add more tables in the results section to present the results clearly.</p> <p>2)The results the authors reported in the Result section (page8, line16-19) are not even consistent with the results showed in Figure2.</p>
-------------------------	--

REVIEWER	<p>Enkeleint A. Mechili 1. Department of Healthcare, Faculty of Public Health, University of Vlora, Albania</p> <p>2. Clinic of Social and Family Medicine, Scool of Medicine, University of Crete, Greece</p>
-----------------	--

REVIEW RETURNED	26-Sep-2020
GENERAL COMMENTS	Thank you very much for reviewing the paper and answering my comments. To my view, the paper is ok for publication.
REVIEWER	JY US
REVIEW RETURNED	29-Sep-2020
GENERAL COMMENTS	Thanks for addressing the comments.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Zhongze Lou

Institution and Country: Department of Psychosomatic Medicine, Ningbo First Hospital, Ningbo, Hospital of Zhejiang University

Competing interests: None declared

Comments to the Author

Thank you for your invitation to review this manuscript again, and the authors have revised the article mostly to my satisfaction.

However, in my view, the results is still not presented clearly.

1) Many results were reported but not adequately presented in a table. I can not find these results in the Figure 1 or Figure 2, neither. (For example, page 6, line 13-43; page 7, line 10-53; page 8, line 3-10; page 8, line 24-45)

I suggest the authors to add more tables in the results section to present the results clearly.

Response:

We thank Reviewer 1 for highlighting these areas in the manuscript where our results are unclear. On page 6 and 8 we have added further in-text explanations to direct the reader's attention within the table and figures (all changes tracked). On page 8 we have included a new figure to help distinguish what was in fact two separate items – supports that had helped parents cope with stress (new Figure 2), and supports that parents reported had helped their children cope with stress (Figure 3).

For other results (e.g., page 7), we have followed APA guidelines that recommend using tables and figures only to supplement the main text. In most cases we have reported data in text that would require two or fewer columns and rows and thus would not warrant presenting in a table.

2) The results the authors reported in the Result section (page 8, line 16-19) are not even consistent with the results showed in Figure 2.

Response:

We appreciate that this was unclear as originally presented. We have now clarified that Figure 2 presents sources of support identified by parents that had helped them cope with stress related to the

COVID-19 pandemic in the past two weeks. Figure 3 presents sources of support identified by parents that had helped their children cope with stress related to the pandemic in the past two weeks.

VERSION 3 – REVIEW

REVIEWER	Zhongze Lou Ningbo First Hosiptal, China
REVIEW RETURNED	10-Dec-2020
GENERAL COMMENTS	I agree to publish this manuscript.