

PEER REVIEW HISTORY

BMJ Paediatrics Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Parents and School-Age Children Mental Well Being After Long Confinement During COVID-19 Pandemic: A Cross-sectional Survey Study.
AUTHORS	Leon Rojas, Daniela Castorena Torres, Fabiola Garza-Ornelas, Barbara M. Castillo Tarquino , Angie Milady Salinas Silva, Cynthia Anahí Almanza Chanona, José Luis Rodríguez-de-Ita, Julieta

VERSION 1 – REVIEW

REVIEWER	Reviewer name: Dr. Peter Flom Institution and Country: Peter Flom Consulting, New York, United States Competing interests: None
REVIEW RETURNED	11-Mar-2022

GENERAL COMMENTS	<p>I confine my remarks to statistical aspects of this paper.</p> <p>General: In a cross sectional design like this, assessing the current state of affairs is possible. I can see why you don't have prior information (how could you?) but it would help a lot to have some information on the usual values that a "normal" population gets on the instruments you used.</p> <p>p. 5, line 49: "0.05 of precision" is not correct, or, rather, not meaningful. Do you mean a MOE of 0.05? If so, say so. You would also have to say of what base proportion, as power for a proportion is different for e.g. .5 and .05.</p> <p>p. 6 line 14 You cannot measure changes in a cross sectional design unless the instrument asks for that. Even if it does, recall questions are quite hard to validate. So, I think you can only measure the state of affairs at the time the person took the test</p> <p>p. 6 line 34-45 This sounds like you did bivariate screening to build a multiple logistic regression model. Although this is a frequent practice, it cannot be recommended. All of the results of the multiple logistic regression will be wrong. P values will be too low, standard errors too small, and parameter estimates biased away from 0. For details (and proofs) see Regression Modeling Strategies by Frank Harrell.</p> <p>Models should, ideally, be based on theory and hypotheses. But, if you must use an automatic method, LASSO isn't bad.</p> <p>Peter Flom</p>
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REVIEWER	Reviewer name: Dr. Shanti Raman Institution and Country: South Western Sydney Local Health, Australia Competing interests: None
REVIEW RETURNED	19-Apr-2022

GENERAL COMMENTS	<p>General: This is an important area of enquiry and research from the majority world in this arena deserves widespread dissemination. However, some grammatical and English language usage issues need good editing. I would rename the title Parents and school-aged children's mental wellbeing after prolonged school closures and confinement during the COVID-19 pandemic in Mexico. I know that the term confinement seems to be used a lot- but it is clear that the main issue seems to be about parents and children's wellbeing following school closures. It is not certain that the general public were confined or in locked down for all that period of time. There needs to be clarity on the central question- are the authors interested in the effect of school closures on mental health and wellbeing or of lockdown? In that context an important paper should be referenced (Radmil et al).¹ Another point of general clarification is that "changes in dynamics" is referred to a lot—but it needs to be qualified. Is this a change in home and family dynamics as in parents working from home and children being home schooled? The authors also need to state whether study participants included vulnerable sections of society- I suspect not.</p> <p>Abstract</p> <p>1st sentence: get rid of detriment. So, "and to examine protective and risk factors associated with mental well-being."</p> <p>Design: replace "pandemic changes in their dynamics" with "pandemic changes in their home and working lives".</p> <p>Results: Children mean age, replace with "Children's mean age".</p> <p>Conclusions: Split this sentence: Our results confirmed the impact of long confinement due to the COVID-19 pandemic and stated the need for specific mental health interventions tailored for parents and children at risk of mental well-being deterioration. To "Our results confirmed the impact of long confinement due to the COVID-19 pandemic in Mexican children and their parents. We advocate for specific mental health interventions tailored to respond to parents and children at risk of mental distress."</p> <p>What this study adds</p> <p>Replace: "is associated to parental and children mental well-being deterioration" with "is associated with deterioration in parents and children's mental well-being."</p> <p>Replace point 2 with: "Parental depression symptoms was associated with experiencing COVID-19 infection within the family, and having children with sleep disturbances and pre-existing medical diagnoses."</p> <p>Point 3 could be: Children's psychosocial dysfunction and sleep disturbance were associated with parental depression symptoms, changes in family dynamics, and increased use of electronic devices.</p> <p>.</p> <p>Introduction</p> <p>I think authors need to provide a bit more by the way of past research- there is a huge amount already available on the impact of COVID 19 and on school closures on children's wellbeing. See examples of references below.¹⁻⁴</p> <p>Also a bit more detail on 'confinement'- apart from school closures, what other lockdown or public health measures were in place to qualify for the term 'confinement' and for how long.</p> <p>Methods</p> <p>"Prior authorization from group administrators"...change to "After obtaining authorization from group administrators". There was no socio demographic information on parental employment status or cultural group- which should be mentioned. Also how was the</p>
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	<p>change in home and family dynamic assessed?</p> <p>Results</p> <p>The "Activity Dynamic" category needs better explanation, it is not obvious from the Table how much change there was in the household status. Did more women stop working and become housewives or were they already at home?</p> <p>Discussion</p> <p>A major limitation to this study's findings and generalisability is that we don't know what section of the population actually responded, what were their socio-economic and cultural characteristics and more importantly who did not respond to this survey. It appears highly likely that this is a largely middle-class group of parents who responded.</p> <p>References</p> <ol style="list-style-type: none"> 1. Rajmil L, Hjern A, Boran P, et al. Impact of lockdown and school closure on children's health and well-being during the first wave of COVID-19: a narrative review. <i>BMJ Paediatrics Open</i> 2021;5(1):e001043. Doi: 10.1136/bmjpo-2021-001043 2. Akkaya-Kalayci T, Kothgassner OD, Wenzel T, et al. The Impact of the COVID-19 Pandemic on Mental Health and Psychological Well-Being of Young People Living in Austria and Turkey: A Multicenter Study. <i>International Journal of Environmental Research and Public Health</i> 2020;17(23):9111. 3. Cachón-Zagalaz J, Sánchez-Zafra M, Sanabrias-Moreno D, et al. Systematic Review of the Literature About the Effects of the COVID-19 Pandemic on the Lives of School Children. <i>Frontiers in Psychology</i> 2020;11(October):1-8. Doi: 10.3389/fpsyg.2020.569348 4. Oppong Asante K, Quarshie ENB, Andoh-Arthur J. COVID-19 school closure and adolescent mental health in sub-Saharan Africa. <i>International Journal of Social Psychiatry</i> 2020;67 (7):958–60. Doi: 10.1177/0020764020973684.
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REVIEWER	<p>Reviewer name: Dr. Jeffrey Goldhagen</p> <p>Institution and Country: University of Florida, Jacksonville Pediatrics, United States</p> <p>Competing interests: None</p>
REVIEW RETURNED	18-Apr-2022

GENERAL COMMENTS	<ul style="list-style-type: none"> • P3. Line 10. Need to use a different word than "dynamic" as it is unclear what the word actually means. Need to change the word throughout the manuscript. • P3. Lines 9-11. This is the most critical concern related to the manuscript. There is significant selection bias. The results relate to parents who have a concern and you are identifying what the concerns are. This is not a study of a population to determine the incidence, rates, etc. of mental health concerns secondary to isolation due to Covid. This means you need to change the title and discussion. • P3. Lines 18-23. There were undoubtedly children that suffered with multiple concerns. Need some insights as to the percentage of children who were suffering from single vs. multiple symptoms. • Page 4. Line 13. Change "to" to "with." Though the English is generally good, would benefit from editing by a English speaker. • Page 5. Line 8. Tense of the word "unfolds." Should be "has unfolded," • Page 5. Paragraphs 2 and 3 are awkward—need to be rewritten. • Page 8. Line 38. What percentage of parents showed signs. For instance, some may have multiple symptoms. • Page 9. Paragraphs 1 and 2. These findings related to married participants are counter-intuitive. Need to explain in Discussion. <p>In general this paper does not provide population-based data. It provides insights into the mental health issues experienced among</p>
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	children and parents who self-selected to be on social media and voice their concerns. This is nevertheless important information that can be generalized to the population and used to develop prevention and intervention strategies. However, the paper needs to be rewritten to reflect this.
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VERSION 1 – AUTHOR RESPONSE

Response to Reviewers Comments • General Comment: Formatting Amendments (where applicable): 1. Title Page Kindly add a title page in your main document. The title page must contain the following information: -Title of the article. -Full name, postal address, e-mail, telephone and fax numbers of the corresponding author. -Full names, departments, institutions, city and country of all co-authors. -Up to five keywords or phrases suitable for use in an index (it is recommended to use MeSH terms). -Word count - excluding title page, abstract, references, statements, figures and tables. It should be embedded at the first page of your main document. Please take note that this should match the details provided on your submission screen. Answer: Thank you for the comment. We added keywords and word count to the title page. • Editor in Chief Comments to Author: A lot of useful suggestions from the reviewers. Be more cautious in your conclusions. If you need more time, please let us know Answer: Thank you for your kind comments. We followed the suggestions provided by all of the reviewers. Accordingly, the conclusions were refined. • Associate Editor Comments to the Author: Thank you for submitting your manuscript, titled "Parents and School-Age Children Mental Well Being After Long Confinement During COVID-19 Pandemic: A Crosssectional Survey Study" to BMJ Paediatrics Open for consideration. Overall, your research describes an important area, however, as all reviewers have identified, there are a number of areas that require further attention before the standard for publication is met. Some points relation to the focus of the manuscript, such as being clear about whether the impact you are interested is school closures, or lock downs in general, other points identify potential sampling biases that should be considered and explained, and lastly, another area is in relation to style and grammar. The manuscript would greatly benefit from being edited for consistent sentence structure and tense and I would encourage the authors to take the time to improve the readability throughout. We have suggested a major revision for this manuscript, and if you choose to address all points made by the reviewers, we look forward to providing a re-review following this. Thank you again for submitting to BMJ Paediatrics Open. Answer: Thank you for your comment. We are grateful for all the reviewers' remarks and made the corresponding corrections and adjustments. Focus clarification and discussion of sampling biases were addressed. We also edited the manuscript for ensure proper grammatical and English language usage to improve readability based on your suggestion. Reviewer: 1 Dr. Peter Flom, Peter Flom Consulting • Comment: I confine my remarks to statistical aspects of this paper. General: In a cross sectional design like this, assessing the current state of affairs is possible. I can see why you don't have prior information (how could you?) but it would help a lot to have some information on the usual values that a "normal" population gets on the instruments you used. Answer: Thank you for your comment. We added information on the normal values for each instrument. (Page 5 lines, 22-23, 30, 34-37). • Comment: p. 5, line 49: "0.05 of precision" is not correct, or, rather, not meaningful. Do you mean a MOE of 0.05? If so, say so. You would also have to say of what base proportion, as power for a proportion is different for e.g. .5 and .05. Answer: Thank you for your comment. We corrected the sentence based on your suggestion, also adding the base proportion. (Page 5, lines 2-

3) • Comment: p. 6 line 14 You cannot measure changes in a cross sectional design unless the instrument asks for that. Even if it does, recall questions are quite hard to validate. So, I think you can only measure the state of affairs at the time the person took the test Answer: Thank you. In agreement with your comment, we modified the sentence by removing the word “changes” to correctly convey the fact that a single measurement was done, accordingly to our cross-sectional design. (Page 5, line 24) • Comment: p. 6 line 34-45 This sounds like you did bivariate screening to build a multiple logistic regression model. Although this is a frequent practice, it cannot be recommended. All of the results of the multiple logistic regression will be wrong. P values will be too low, standard errors too small, and parameter estimates biased away from 0. For details (and proofs) see Regression Modeling Strategies by Frank Harrell. Models should, ideally, be based on theory and hypotheses. But, if you must use an automatic method, LASSO isn't bad. Peter Flom Answer: Thank you for your comment. We corrected the entire section because it was inaccurately described and consequently the data was ambiguous. We reviewed the suggested literature and added the description of the method, variables, and variable selection. Likewise, the data was processed again to rule out any mistakes. Results section and tables were modified accordingly. Page 5 (lines 41-45), Page 6 (lines 1-11). Reviewer: 2 Dr. Jeffrey Goldhagen, University of Florida, Jacksonville • Comment: P3. Line 10. Need to use a different word than “dynamic” as it is unclear what the word actually means. Need to change the word throughout the manuscript. Answer: Thank you for your comment. We changed the word “dynamic” and replaced with changes in their home, school and working lives throughout the manuscript. (Page 2, line 8). • Comment: P3. Lines 9-11. This is the most critical concern related to the manuscript. There is significant selection bias. The results relate to parents who have a concern and you are identifying what the concerns are. This is not a study of a population to determine the incidence, rates, etc. of mental health concerns secondary to isolation due to Covid. This means you need to change the title and discussion. Answer: Thank you for your comment. We adapted the title, discussion, the design section in the abstract and the method section to address the fact that our study was limited to a group of parents present online. We also address the selection bias in the study limitations paragraph. (Page 2, Line 6-8) (Page 11, lines 12-20) • Comment: P3. Lines 18-23. There were undoubtedly children that suffered with multiple concerns. Need some insights as to the percentage of children who were suffering from single vs. multiple symptoms. Answer: Thank you for your comment. We added the percentage of children suffering from multiple symptoms. (Page 2, line 15-17). • Comment: Page 4. Line 13. Change “to” to “with.” Though the English is generally good, would benefit from editing by a English speaker. Answer: Thank you for your comment. We changed the suggested word. A native English speaker supported us with the style correction. We also took the suggestion from Dr. Raman (Reviewer 3) to modify the statements (Page 3, line 11-18) • Comment: Page 5. Line 8. Tense of the word “unfolds.” Should be “has unfolded,” Answer: Thank you for your comment. The word was corrected. (Page 4, line 4) • Comment: Page 5. Paragraphs 2 and 3 are awkward—need to be rewritten. Answer: Thank you for your comment. Both paragraphs were rewritten. We also added more information following the suggestion from other reviewer. (Page 4, lines 8-21) • Comment: Page 8. Line 38. What percentage of parents showed signs. For instance, some may have multiple symptoms. Answer: Thank you for your comment. We added the percentage of parents and children experiencing multiple symptoms. (Page 8 Lines 2-7) • Comment: Page 9. Paragraphs 1 and 2. These findings related to married participants are counter-intuitive. Need to explain in Discussion. Answer: Thank you for your comment. We added a more detailed explanation regarding this finding in the

discussion section (Page 10, lines 30-31, Page 11 lines 1-12). • Comment: In general this paper does not provide population-based data. It provides insights into the mental health issues experienced among children and parents who self-selected to be on social media and voice their concerns. This is nevertheless important information that can be generalized to the population and used to develop prevention and intervention strategies. However, the paper needs to be rewritten to reflect this. Answer: Thank you for your comment. We adapted the title, abstract, method section and discussion to properly reflect the insights of our study and sample. We also deepen the discussion about this in the study limitations paragraph. (Page 11, lines 12-20) Reviewer: 3 Dr. Shanti Raman, South Western Sydney Local Health District, University of New South Wales • Comment: General: This is an important area of enquiry and research from the majority world in this arena deserves widespread dissemination. However, some grammatical and English language usage issues need good editing. Answer: Thank you for your comment. Attending to your suggestion, grammatical and English language usages were edited, and style correction was made. • Comment: I would rename the title Parents and school-aged children's mental wellbeing after prolonged school closures and confinement during the COVID-19 pandemic in Mexico. I know that the term confinement seems to be used a lot- but it is clear that the main issue seems to be about parents and children's wellbeing following school closures. It is not certain that the general public were confined or in locked down for all that period of time. Answer: Thank you! In agreement with your comment, we corrected the title after your suggestion, to correctly convey the study purpose. (Page 1, lines 1-3) • Comment: There needs to be clarity on the central question- are the authors interested in the effect of school closures on mental health and wellbeing or of lockdown? In that context an important paper should be referenced (Radmil et al).¹ Another point of general clarification is that "changes in dynamics" is referred to a lot—but it needs to be qualified. Is this a change in home and family dynamics as in parents working from home and children being home schooled? The authors also need to state whether study participants included vulnerable sections of society- I suspect not. References 1. Rajmil L, Hjern A, Boran P, et al. Impact of lockdown and school closure on children's health and well-being during the first wave of COVID-19: a narrative review. *BMJ Paediatrics Open* 2021;5(1):e001043. doi: 10.1136/bmjpo-2021-001043 2. Akkaya-Kalayci T, Kothgassner OD, Wenzel T, et al. The Impact of the COVID-19 Pandemic on Mental Health and Psychological Well-Being of Young People Living in Austria and Turkey: A Multicenter Study. *International Journal of Environmental Research and Public Health* 2020;17(23):9111. 3. Cachón-Zagalaz J, Sánchez-Zafra M, Sanabrias-Moreno D, et al. Systematic Review of the Literature About the Effects of the COVID-19 Pandemic on the Lives of School Children. *Frontiers in Psychology* 2020;11(October):1-8. doi: 10.3389/fpsyg.2020.569348 4. Oppong Asante K, Quarshie ENB, Andoh-Arthur J. COVID-19 school closure and adolescent mental health in sub-Saharan Africa. *International Journal of Social Psychiatry* 2020;67 (7):958–60. doi: 10.1177/0020764020973684. Answer: Thank you for your comment. We clarified within the manuscript the central question to properly convey that the central interest of the study was to explore the effect on parents and children mental well-being after the prolonged school closures and confinement during COVID-19 in Mexico. We followed your suggestion and referenced Radmil et al.; also including other related references in the introduction and discussion. We also changed the terms "changes in dynamics" and "activity dynamics" as they were ambiguous. Finally, we stated as a limitation to the study that there was no participation of vulnerable sections of society. • Comment: Abstract 1st sentence: get rid of detriment. So, "and to examine protective and risk factors associated with mental well-being." Answer: Thank you for your comment. We removed the words you suggested and refined the overall understandability of the

sentence. (Page 2, line 3-5). • Comment: Design: replace “pandemic changes in their dynamics” with “pandemic changes in their home and working lives”. Answer: Thank you for your comment. We replaced the phrase you suggested and refined the overall understandability of the sentence. (Page 2, line 9-8) • Comment: Results: Children mean age, replace with “Children’s mean age”. Answer: Thank you for your comment. We corrected the word you pointed out. (Page 2, line 15) • Comment: Conclusions: Split this sentence: Our results confirmed the impact of long confinement due to the COVID-19 pandemic and stated the need for specific mental health interventions tailored for parents and children at risk of mental well-being deterioration. To “Our results confirmed the impact of long confinement due to the COVID-19 pandemic in Mexican children and their parents. We advocate for specific mental health interventions tailored to respond to parents and children at risk of mental distress.” Answer: Thank you for your comment. We split and corrected the sentences following your suggestion. (Page 2, line 25-28) • Comment: What this study adds Replace: “is associated to parental and children mental well-being deterioration” with “is associated with deterioration in parents and children’s mental well-being.” Replace point 2 with: “Parental depression symptoms was associated with experiencing COVID-19 infection within the family, and having children with sleep disturbances and pre-existing medical diagnoses.” Point 3 could be: Children’s psychosocial dysfunction and sleep disturbance were associated with parental depression symptoms, changes in family dynamics, and increased use of electronic devices. Answer: Thank you for your comments. We modified the statements following your suggestions. (Page 3, line 11-18). • Comment: Introduction I think authors need to provide a bit more by the way of past research- there is a huge amount already available on the impact of COVID 19 and on school closures on children’s wellbeing. See examples of references below.1-4 Also a bit more detail on ‘confinement’- apart from school closures, what other lockdown or public health measures were in place to qualify for the term ‘confinement’ and for how long. Answer: Thank you for your comment. We provide more information about the impact of school closures and confinement due to COVID-19 and referenced the suggested articles. We also provide more information about the confinement policies established in Mexico and their duration. (Page 4, line 8-31) • Comment: Methods “Prior authorization from group administrators” change to “After obtaining authorization from group administrators”. There was no socio demographic information on parental employment status or cultural group- which should be mentioned. Also how was the change in home and family dynamic assessed? Answer: Answer: Thank you for your comment. We changed the phrase as you suggested. (Page 4, lines 43-44) We also added the sociodemographic information and parental employment status. Page 5 (lines, 3-6) Finally, we added more information on the questionnaire and items related to the assessment of the family changes in home, school and working life. (Page 5, line 10-16). • Comment: Results The “Activity Dynamic” category needs better explanation; it is not obvious from the Table how much change there was in the household status. Did more women stop working and become housewives or were they already at home? Answer: Thank you for your comment. We clarified the category and removed the title “activity dynamic”. To fix the inaccuracy of the category we added and properly described the categories as they were asked: Occupation, Confinement Status and Working Modality. (Page 7, table 1) • Comment: Discussion A major limitation to this study’s findings and generalisability is that we don’t know what section of the population actually responded, what were their socio-economic and cultural characteristics and more importantly who did not respond to this survey. It appears highly likely that this is a largely middle-class group of parents who responded. Answer: Thank you for your comment. We added more information in study sample population and results sections about the population that participated. We also added as a

limitation to our study that our sample did not include vulnerable sections of the population. (Page 5 lines, 3-6) (Page 6, lines, 29-37), (Page 11, lines 12-20

VERSION 2 – REVIEW

REVIEWER	Reviewer name: Dr. Peter Flom Institution and Country: Peter Flom Consulting, New York, United States Competing interests: None
REVIEW RETURNED	24-May-2022

GENERAL COMMENTS	The authors have addressed my concerns and I now recommend publication
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REVIEWER	Reviewer name: Dr. Jeffrey Goldhagen Institution and Country: University of Florida, Jacksonville Pediatrics, United States Competing interests: None
REVIEW RETURNED	28-May-2022

GENERAL COMMENTS	Page 5, Line 14: Should read, "In the United States, it....." Page 7, Lines 17-23. This paragraph is unclear. Page 10, Line 48. The word "outstanding" doesn't make sense in this context. Page 11, Line 20. I think the authors meant "experiencing" not "experimenting." Page 12, Line 8. May consider a comma after the word "sleep" or reconstruct the sentence
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VERSION 2 – AUTHOR RESPONSE

Response to Reviewers Comments • Associate Editor Comments to the Author: Thank you to the authors for diligently responding to all comments from reviewers. Reviewer 2 has some very minor revisions suggested which should not be too onerous, and once addressed, the manuscript can be reconsidered for publication. Answer: Thank you for your comments. We addressed the minor revisions suggested. • Reviewer: 1 Dr. Peter Flom, Peter Flom Consulting **Comments to the Author** The authors have addressed my concerns and I now recommend publication Answer: Thank you very much for your feedback. • Reviewer: 2 Dr. Jeffrey Goldhagen, University of Florida, Jacksonville **Comments to the Author** Page 5, Line 14: Should read, "In the United States, it....." Answer: Thank you for your comment. The word "it" was added following your suggestion. • Comment: Page 7, Lines 17-23. This paragraph is unclear. Answer: Thank you for your comment. We rewritten the paragraph to improve its clarity. • Comment: Page 10, Line 48. The word "outstanding" doesn't make sense in this context. Answer: Thank you for your comment. We replaced the word following your suggestion. • Comment: Page 11, Line 20. I think the authors meant "experiencing" not "experimenting." Answer: Thank you for your comment. We replaced the word following your

suggestion. • Comment: Page 12, Line 8. May consider a comma after the word "sleep" or reconstruct the sentence Answer: Thank you for your comment. We added a comma after the word sleep based on your suggestion